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EHPS 2013 Abstracts

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EHPS 2013 Abstracts

Welcome to our 27th conference of the European Health Psychology Society in Bordeaux

On behalf of the European Health Psychology Society, I would like to welcome all delegates to our 27th annual scientific EHPS conference. Following the warm hearted invitation of the conference president Bruno Quintard and the local organising team, the Francophone Association of Health Psychologists and the Psychology Department of the University Bordeaux Segalen, we are returning to the beautiful port city of Bordeaux.

The programme of the conference reflects the rapid development of health psychological science in the EHPS. The 27th conference will be a showcase of cutting edge research, theoretically innovative studies, rigorous evaluations, and work that matters; addressing key issues in the psychology of health and health care, designed to have impact on both the development of scientific knowledge and the well-being and care provision of the population. The preconference workshops reflect the direction of scientific development in health psychology covering theory and practice, dissemination of science, systematic reviewing and implementation of interventions, thus covering the process of research from conception to implementation. I would like to thank the facilitators for sharing their expertise and the Synergy team for organising these excellent pre-conference workshops. Further pre-conference highlights are the workshops of CREATE (EHPS sub division promoting education and collaboration for early career researchers working in the field of health psychology; www.ehps.net/create) and SYNERGY (Collaboration and Innovation in theory and research in the EHPS; www.ehps.net/synergy). The CREATE workshop 'Intensive longitudinal methods in health psychology' addresses the timely need in health psychology to better understand changes and intra-individual variability over time and will be facilitated by Gertraud Stadler, Niall Bolger (Columbia University, NY) and Jean-Philippe Laurenceau (University of Delaware, DE). Gerjo Kok and Rob Ruiters will facilitate the Synergy workshop 'Methods for changing environmental conditions for health: Influencing organisations, key actors and stakeholders'. This workshop demonstrates how far health psychology has come: Our science has gone beyond the mostly individual based research we have seen in the past and has thoroughly progressed towards the translational research agenda.

I am excited about the excellent programme that the scientific committee chaired by Holger Schmid has brought together for this conference. Four outstanding keynote speakers; Mark Conner (UK), Lutz Jäncke (Switzerland), Stan Maes (the Netherlands) and Crystal Park (USA) will highlight current developments in the areas of health behaviour, brain science and self-regulation, quality of life and care and religion. A look through the programme shows numerous excellent sessions, symposia, posters and individual papers leaving delegates with an excellent cross section of quality research in the EHPS. The conference theme is *Well-being, Quality of Life and Care-giving* which is reflected in a range of presentations of highly applied and interdisciplinary work. Applied health psychology is an interdisciplinary science. The EHPS is international. The organisers received almost 950 submissions from 64 countries! We welcome the delegates and speakers from all over the world. We are delighted that you are contributing actively to the quality of our conference and we are delighted about the opportunity to further our knowledge in collaboration.

In addition to an excellent scientific programme, EHPS conferences are wonderful opportunities to meet old and new friends, network, discuss and exchange ideas. Many international research collaborations have started at EHPS conferences and people have made friends and met inspiring acquaintances. A delightful social programme, the French summer, companionship and the cultural, culinary, geographic and architectural highlights will contribute to the experience and help to inspire and entertain before and after the scientific sessions.

I would like to thank on behalf of the EC, the colleagues who have been working so hard to prepare this conference for us. Merci beaucoup to Bruno Quintard and the local organisers, the

scientific committee, Paul Norman, the EHPS liaison officer, the organisers of CREATE and Synergy and of course, to you, the delegates and presenters.

Enjoy the conference!

Falko Sniehotta, PhD
President of the European Health Psychology Society

27th Conference of the European Health Psychology Society, Bordeaux

Well-being, Quality of Life and Caregiving

The conference theme “Well-being, Quality of Life and Caregiving” was chosen by the local organisers together with the Scientific Committee and the Executive Committee of the EHPS, because this is one of the main topics the laboratory of Psychology of the Psychology Department of the University Bordeaux Segalen is working on. A conference theme has to be well chosen to bring together researchers from the field of health psychology to share and stimulate work in this field. There are several indicators showing, how well this main theme was chosen.

The 2012 European health report from WHO (World Health Organization 2013) has the subtitle: “Charting the way to well-being”. Health figures from this report are clear. In Europe most people die because of non-communicable diseases (80% of deaths in 2009). Morbidity and disability in association with these diseases can be attributed to key areas for intervention such as nutrition, physical activity and addictive substances, mainly to address risk factors such as overweight and obesity, high cholesterol and high blood pressure, and alcohol and tobacco use. Health psychologists have studied and implemented theory- and research-based practices to modify these risk factors and innovative interventions have been developed. In addition, the tradition of health psychology is to look at outcomes linked to health and not only at illness. The report says: “Nevertheless, full agreement on or a static understanding of what well-being means is needed to develop ways to improve well-being and eventually to measure and monitor it.” (p. 124).

The conference track “Well-being and Quality of Life” may provide some insight into this question. This track is defined as “Positive aspects of a person’s life, such as positive emotions and life satisfaction as well as physical, mental, emotional and social functioning”. The “Well-being and Quality of Life” track received the highest number of submissions (158) and in the programme sessions on well-being and quality of life are being held on every day.

With almost 950 submissions from 64 countries the 27th annual conference of the European Health Psychology Society is again very successful. Even though this is a European conference, participants come from all over the world. Most submissions came from the United Kingdom, France, the Netherlands, Germany, Italy and Portugal. If one attended all the presentations, one would need 30 days with 8 hours of non-stop listening!

The conference introduces for the first time a new format for discussing methodological issues. In the methods track we allowed submission of symposia only and we accepted three symposia in the programme. The programme comprises a total of 24 symposia, 3 roundtables and 5 pre-conference workshops. Delegates can choose between 77 oral sessions and 72 poster sessions. Four keynote speakers present their outstanding work on health cognitions, affect and health behaviours (Mark Conner), on brain, cognition, self-regulation and health behaviour (Lutz Jäncke), on quality of (work) life and quality of care (Stan Maes) and on religiosity and health (Crystal Park). The CREATE and Synergy subdivisions of the European Health Psychology Society organised workshops on longitudinal methods in health psychology and on changing environmental conditions for health. Again, these workshops are very popular and have a long tradition: CREATE is celebrating its 15th anniversary.

On behalf of the Scientific Committee, the local organisers and the Executive Committee we would like to thank all the colleagues who have submitted their work. We would like to thank all the reviewers for their thoughtful work and for their help in setting up the programme. We would also like to thank the track chairs for selecting high quality presentation for their tracks. Special

thanks go to the Executive Committee of the EHPS who, with all their back stage work, guarantee the long tradition of these conferences. In particular, we wanted to thank the local organisers, especially Monique Sentey and Céline Thouvenin from Objective Congrès as well as students from Bordeaux University. We are convinced that with the rich scientific and social programme and with the attractions of the wonderful city of Bordeaux, we have paved the ground not only for working on well-being and quality of life, but also for making it happen.

We wish us all a very fruitful conference and we are convinced that this conference with all the opportunities to learn, to socialise, to dance, to eat and to drink will broaden our picture what matters for health, well-being and quality of life.

Holger Schmid
Chair of the Scientific Committee

Bruno Quintard
Conference President

Reference:

World Health Organization (2013). The European health report 2012: Charting the way to well-being. Copenhagen: WHO Regional Office for Europe.

Symposia (In alphabetical order by first convenor)

How to achieve health-behaviour change? Effective social-cognitive factors

Silke Burkert¹

¹Charité – Universitätsmedizin Berlin, Germany

Aims: To identify volitional, emotional, cognitive, and social factors associated with health-behaviour change; to deliberate on health-behaviour promoting interventions. **Rationale:** Health-facilitating behaviours are prerequisites of quality of life as topic of this year's conference. Latest investigations of new populations, moderators, and interventions will broaden our understanding of health-behaviour change. **Summary:** Volitional strategies are presented as longitudinal predictors of physical activity in German employees (Keller et al.) and are targeted in a safe water consumption intervention in Bangladesh (Inauen et al.). Then, emotional, cognitive, and social moderators of the health-behaviour change process are identified, i.e. work stress (Fodor et al.) or cognitive capacity and dyadic planning in obese outpatients (Burkert et al.). Finally, a social support intervention regarding exercising is introduced (Rackow et al.).

A workplace health promotion program for physical activity: Self-efficacy and planning as longitudinal predictors

Jan Keller¹, Paul Gellert, Anna Ernsting

¹Freie Universität Berlin, Germany

Background: Workplace health promotion (WHP) programs try to enhance health-related behaviors such as physical activity in employees by fostering self-regulatory skills. This study evaluates an online WHP and examines the role of self-efficacy and planning as longitudinal predictors. **Methods:** A total of N = 470 employees participated in the 12-week WHP program with three repeated assessments. Self-efficacy, planning, physical activity, and covariates were measured. **Findings:** Increases in planning and physical activity were found over 12 weeks. Whereas planning at Time 1 predicted change in physical activity at Time 2, self-efficacy and planning did not predict later changes in physical activity. Further, cross-lagged predictions between self-efficacy and planning emerged. **Discussion:** Whereas findings indicated that the online WHP was related with increases in physical activity, longer-term predictors of this effect should be further investigated.

Sustainable promotion of safe water consumption: Long-term effects of interventions and mechanisms of behaviour change

Jennifer Inauen¹, Hans-Joachim Mosler

¹University of Konstanz, Germany

Background: Millions of people worldwide drink contaminated water. Theory-based interventions effectively enhance safe water consumption. However, the long-term sustainability and mechanisms of change are largely unknown. **Methods:** A cluster-randomized trial in Bangladesh (N=710 households) investigated the added effects of behaviour-change techniques (BCTs) targeting commitment strength compared to information alone. Water consumption and its determinants from health-behaviour theories were assessed at baseline, and at 1-month and 8-month follow-ups. **Findings:** Results indicated high stability of the interventions' behaviour-change

effects. The most effective combination of BCTs (implementation intentions, reminders, and information) displayed 53% users in the long term. Of all adopters, 73 (15.6%) returned to using arsenic-contaminated options after eight months. Logistic regressions revealed that relapse was mainly predicted by decreased behavioural intentions. **Discussion:** The results suggest the sustainability of changing safe water consumption with theory-based interventions. Although relapse was low it should be taken into account by strengthening intentions, e.g. by goal-setting.

The impact of job strain on nutrition behaviour

Daniel Fodor¹, Amelie U. Wiedemann, Conny H. Antoni, Silke Burkert

¹Universität Trier, Germany

Background: As individuals spend most time of their waking hours at work, job demands and job resources play a crucial role in adopting a healthy diet. The present study aims at investigating the potential contribution of job strain for explaining the intention-planning-behaviour association. **Methods:** In a longitudinal study among different occupational groups in Germany (N = 272) a moderated mediation model was analyzed in order to test if job strain (high job demands/low job resources; baseline and time 2) moderates the indirect effect of intention (baseline) on nutrition (baseline, time 3) via action/coping planning (mediator; time 2). **Findings:** Results indicate that the transfer of intention into planning is moderated through the interaction of job demands and job resources. No moderation effect was found for the transfer of planning into behaviour. Coping planning directly predicted behaviour. **Discussion:** To a certain degree, job strain indirectly fosters healthy nutrition via coping planning.

Synergistic effects of dyadic and individual planning and cognitive capacity

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Objectives: A wide range of populations benefit from individual planning of behaviour change, including people with cognitive impairment. Dyadic planning includes the expertise of a planning-partner and was also shown to trigger health-behaviour change. Synergistic effects of both kinds of planning are expected to compensate lower levels of cognitive capacity. **Methods:** A total of N = 90 obese outpatients provided data on dyadic and individual planning (baseline) as well as objectively measured cognitive capacity (baseline) and step counts (baseline, 6 months). **Findings:** A moderation analysis revealed a three-way interaction of dyadic and individual planning as well as cognitive capacity, prediction change in step counts. Regarding behaviour change especially individuals with comparatively lower cognitive capacities benefit from using both dyadic and individual planning. **Conclusion:** Findings broaden the current understanding of the role of planning and underscore the importance of different, i.e. self-regulatory and social resources in health-behaviour change.

Effects of a sports companion on physical exercise: An intervention study

Pamela Rackow¹, Urte Scholz, Falko Sniehotta, Rainer Hornung

¹University of Zurich, Switzerland

Background: The role of social support for exercising is well documented. However, most studies target perceived instead of received social support as well as investigate the effects of social

support in correlational designs. Our study investigated the effects of received social support by conducting an intervention study. **Methods:** Participants (N = 336) were randomly assigned to intervention or control group. The intervention comprised regularly exercising with a new sports companion for eight weeks. To investigate the time course of exercising and received social support, growth-curve modelling was employed. **Findings:** Both groups improved their exercising. Received social support slightly decreased in the control group, but remained on a stable high level in the intervention group. **Discussion:** The intervention was able to maintain high levels of received social support for exercise across a two-months interval. Future studies should also take other possibilities of increasing levels of social support into account.

Improving well-being and quality of life for people with diabetes: A role for Health Psychology?

Molly Byrne¹

¹National University of Ireland Galway, Ireland

Aims: To showcase European psychosocial research in the area of diabetes and explore how Health Psychologists might develop interventions to impact on the quality of life and wellbeing of people with diabetes. **Rationale:** Diabetes is a common chronic illness, which requires challenging and stressful self management of medications and diet for patients. The conference theme 'Well-being, quality of life and care giving' provides a perfect opportunity to address how Health Psychology can inform service developments to enhance well-being of people with diabetes. **Summary:** The symposium focuses on different aspects of health service provision (hospital self management programmes, primary care, transition from paediatric to adult hospital services, treatment of multimorbidity) and how these impact on patient outcomes (quality of life, self management, clinic attendance, satisfaction with services).

Who gains most? Quality of life gains among people with type 1 diabetes following DAFNE

Byrne, M¹., Newell, J., Coffey, N., O Hara, M.C., Cooke, D., and Dinneen, S.F

¹National University of Ireland, Galway, Ireland

Background: Self-management training programmes result in a number of positive outcomes for people with type 1 diabetes, including increased quality of life. We aimed to examine predictors of quality of life gains following DAFNE (Dose Adjustment for Normal Eating) self-management training programme. **Methods:** Data were collected from 437 people with type 1 diabetes from 6 hospital centres before, and at 18 month post, DAFNE intervention. Clinical data were recorded by clinicians and other variables, including quality of life (DSQOLS) and diabetes related distress (PAIDS), were measured by questionnaire. **Findings:** Those with high levels of diabetes-related distress experienced greatest improvement in quality of life scores ($p=0.001$). Those with poor glycaemic control (higher levels of HbA1c; $p=0.03$) and those with high levels of anxiety ($p=0.001$) experienced greatest reductions in diabetes-related distress. **Discussion:** Those with high baseline levels of anxiety, diabetes-related distress and levels of HbA1c gain most from self-management programmes like DAFNE.

How do people with diabetes describe their experiences of primary care: Where can we improve?

Charlotte Paddison¹, Catherine Saunders, Gary Abel, Rupert Payne, Martin Roland

¹University of Cambridge, United Kingdom

Background/Aims: To describe the UK primary care experience of people with diabetes and to inform improvements in diabetes care. **Methods:** Using logistic regressions we analysed data on 7 items covering four primary care domains (access; continuity; doctor communication; nurse communication) from 85,760 adults with self-reported diabetes from the 2012 General Practice Patient Survey (England). **Findings:** People with diabetes, on average, reported better experience on 6 out of 7 primary care items compared to people without diabetes (differences in% reporting positive experience, $p < .001$ for all). Those with diabetes and comorbid long-term conditions (multimorbidity) reported worse experiences than those with diabetes alone for 6 out of 7 items ($p < .001$). **Discussion:** Overall, people with diabetes report very positive primary care experiences but improvements are needed for diabetes patients with co-morbid long-term conditions. General practices in the UK should focus on enabling patients to see the doctor they prefer, and improving shared decision-making.

Factors influencing clinic attendance among young adults (15-30) with type 1 diabetes: A systematic review

Lisa Hynes¹, Molly Byrne, Sean Dinneen, Jenny McSharry

¹National University of Ireland, Galway, Ireland

Background: Poor hospital clinic attendance, which has been associated with poorer outcomes, is common among young adults with Type 1 Diabetes. **Methods:** Electronic databases (EBSCO CINAHL, MEDLINE, PsycINFO, OVID EMBASE and Science Direct) were searched for studies reporting facilitators and barriers to clinical attendance. Data were extracted and results were synthesised narratively. **Findings:** 559 studies were assessed; 12 studies were included in the final review (eight quantitative and four qualitative studies). Support during transition to adult clinics, differences between paediatric and adult services, communication between young adults and health care staff and the developmental characteristics of young adults impact clinic attendance in this population. **Discussion:** Clinic attendance rates may be improved by supporting young adults with diabetes as they transition into adult services and encouraging open communication between young adults and with hospital staff. Service improvements in this area must be sensitive to the developmental characteristics of young adults.

Diabetes management in the context of multiple illnesses: A qualitative analysis

Jenny McSharry¹, Felicity Bishop, Rona Moss-Morris, Tony Kendrick

¹University of Southampton, United Kingdom

Background: Multiple conditions commonly co-occur, however most existing research addresses patients' management of single conditions in isolation. This study aimed to explore diabetes

self-management in patients with diabetes and multiple additional conditions. **Methods:** Semi-structured qualitative interviews were carried out with 17 patients with diabetes and at least one additional condition. Data were analysed using an inductive thematic analysis and elements of grounded theory. **Findings:** Participants differed in the self-management resources allocated to diabetes with some prioritising diabetes management and others placing greatest emphasis on additional conditions. Participants also differed in preferred management styles with some managing diabetes separately and others describing integrated management across conditions. **Discussion:** Multimorbidity is increasing and health psychology research should be extended to address the complexity of real-life illness experiences. An awareness of how patients manage diabetes in the context of multiple conditions may facilitate the development of self-management plans and interventions for people with multimorbidity.

Diabetes MILES – The Netherlands: Psychosocial aspects of living with diabetes in Dutch adults

Giesje Nefs¹, Mariska Bot, Jessica L Browne, Jane Speight, François Pouwer

¹Tilburg University, Netherlands

Background: As the number of people with diabetes is increasing rapidly worldwide, a more thorough understanding of the psychosocial aspects of living with this condition has become an important health care priority. **Methods:** Diabetes MILES – The Netherlands is a national online observational study examining how Dutch adults with diabetes manage their condition and how it affects their lives. **Findings:** 3,960 individuals with diabetes (40% type 1, 53% type 2) completed questionnaires covering a broad range of topics, including general health, self-management, emotional well-being and contact with health care providers. The sex distribution was fairly equal in the total sample, participants spanned a broad age range (19-90 years), and diabetes duration ranged from recent diagnosis to living with the condition for over fifty years. **Discussion:** The study may provide insights into which subgroups of people are at high risk of problems with self-management and emotional well-being.

Caregiving: A positive experience?

Nadia Crellin¹, Georgina Charlesworth, Valerie Morrison

¹University College London, United Kingdom

Aims: This symposium aims to increase understanding of the positive aspects of caregiving and its predictors, as well as achieve a better understanding of mixed emotions, caregiver quality of life, the adaptive significance of positive aspects, and impact of support services. **Rationale:** In recent years, researchers have moved towards a more holistic perception of the caregiving experience; both positive and negative aspects are important. Despite this shift, little is known about positive aspects of caregiving, mixed emotions and the association with quality of life. Research is needed to inform theories of caregiver adaptation and facilitate a more holistic approach towards interventions. **Summary:** This symposium will discuss positive aspects of caregiving including benefit finding and gain, the predictors of positive aspects and the value of mixed emotions. The significance of positive aspects for caregiver quality of life, and implications of interventions for caregiver quality of life and confidence will be discussed.

Benefit finding in caregivers: Testing a resource model of stress and coping

Tony Cassidy¹, Melanie Giles, Marian McLaughlin

¹University of Ulster, Northern Ireland

Background: Research has begun to identify positive outcomes of being a caregiver which may inform supportive interventions. A resource model of stress and coping, with benefit finding and psychological resources mediating the impact of caregiving, was tested in in two studies. **Methods:** Benefit finding was explored in 842 female cancer carers and in 329 young carers in relation to burden of care, perceived stress, optimism, resilience, self-efficacy, perceived support and both positive and negative outcomes. **Findings:** Hierarchical multiple regression analysis (HMRA) showed that the model was supported in that both social and psychological resources correlated with benefit finding and mediated the relationship between the burden of caregiving and both positive and negative outcomes. **Discussion:** Despite the burden of caregiving participants did find benefit where they felt supported and exhibited psychological capital. It is suggested that support services need to focus on building psychological capital in order to improve the health and wellbeing of caregivers.

Predicting caregiver gains: A longitudinal study

Sahdia Parveen¹, Val Morrison

¹University of North Wales, United Kingdom

Background: The aim of this study was to examine if changes in motivations to care, familism, illness perceptions, caregiver tasks, coping, and social support were related to caregiver reported gains (subjective feelings of satisfaction and rewards). **Method:** A longitudinal design was employed whereby 123 caregivers completed a questionnaire at three time points. Independent variables were converted into residual change scores (between time 1 and time 2) and their influence on caregiver gains at time 2 and time 3 was examined. **Findings:** Caregiver reported gains remained stable over time. Hierarchical regression analysis found that an increase in illness coherence was a strong predictor of caregiver gains at time 2, whereas predictors of time 3 gains included ethnicity, number of hours caregiving, and an increase in self-distraction and denial as coping methods. **Discussion:** The study has implications for the development of time-specific interventions to increase caregiver gains and also for service development.

Health related quality of life in family caregivers

Nadia Crellin¹, Martin Orrell, Georgina Charlesworth

¹University College London, United Kingdom

Background: The aim of this study was to explore the role of self-efficacy, positive affect, coping strategy and social support in family caregiver Health related Quality of Life (HrQoL). **Methods:** A cross-sectional design was employed with 245 family caregivers of individuals with dementia in the community in South East England. The data collected was baseline data for the SHIELD (Support at Home: Interventions to Enhance Life in Dementia) Carer Supporter Programme. Correlational and regression analyses were performed. **Findings:** Positive affect and self-efficacy

beliefs had the strongest association with caregiver HrQoL. Self-efficacy for controlling upsetting thoughts was the largest predictor of HrQoL, followed by positive affect, company and companionship and self-efficacy for obtaining respite. **Discussion:** Findings increase understanding of the determinants of caregiver HrQoL, which may inform existing theories of carer adaptation and promote the design of better support services aimed at improving health related outcomes.

Mixed emotion in carers as predictor of service use and care-recipient outcome

Georgina Charlesworth¹, Nina Melunsky, Martin Orrell, Stanton Newman

¹University College London, United Kingdom

Background: Caregiving often gives rise to mixed emotions. The aim of this paper is to consider the predictive value of categories of mixed emotion. **Methods:** 236 family carers of people with dementia taking part in the Befriending and Costs of Caring (BECCA) trial were classified to Robertson's 4 categories of mixed emotion; 'Well adjusted', 'Ambivalent', 'Distressed', and 'Intense'. Exploratory analyses of associations between mixed emotion and carer characteristics, coping and service use at baseline and 2 year follow-up were performed. **Results:** Patterns of demographics, coping, service use and outcome for person with dementia varied between the 4 categories on cross-sectional and longitudinal analyses. Mixed emotion categories at baseline had higher predictive value for carer and care-recipient outcome after 2 years than depressive symptoms. **Conclusions:** To better understand the complexities of family caring, caring research should include measures of positive emotions in addition to the well-established measures of negative aspects.

Does carer quality of life benefit from care-recipients receiving telecare? A case-control prospective study

Michelle Beynon¹, Shashivadan P Hirani, Martin Cartwright, Lorna Rixon, Stanton P Newman
on Behalf of the WSD Investigators

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Background: Telecare devices allocated to individuals with social care needs potentially produce supplementary benefits for their carers, 'transforming their lives'; however little evidence evaluates these adjunct effects. This study examined whether telecare: (1) ameliorated perception of burden and subjective burden and (2) increased QoL for carers. **Methods:** A case-controlled, prospective study, compared outcomes of carers whose care-recipient received TC (n=90) or usual-care (n=92). Questionnaires assessing HRQoL (SF-12), Caregiver Strain (CGSI) and subjective burden (STAI, CESD, Carer Confidence ratings), were completed at baseline, 5-months and 12-months. Linear Mixed Models examining differences in outcomes between groups across time were conducted with appropriate covariates. **Results:** Analyses indicated significant ($p < 0.05$) interaction effects for carer group and time for the SF12-MCS and a Carer Confidence measure. **Discussion:** This study showed evidence of beneficial effects on carers of TC recipients. However results need to be interpreted with caution as they may be an artefact of study participation.

Improving the Credibility of Health Psychology Intervention Research: Problems and Solutions

Ioanna Cristea¹, James Coyne, Gozde Ozakinci, Martin Hagger

¹University of Pisa, Italy

Aims: (1) Identify sources of confirmatory bias and threats to the credibility of health psychology intervention research. (2) Explore, as an example, literature concerning interventions for couples facing cancer. (3) Document confirmatory bias and discrepancies in what is reported in abstracts and found in results section of articles reporting intervention trials. (4) Explain why a predominance of positive but underpowered published trials threatens credibility of health psychology intervention research. (5) Make recommendations for immediate and longer-term for change. **Rationale:** Health psychology research can influence empirically-based recommendations and policy decisions, but there serious threats to its credibility that need to be rectified. **Summary:** The symposium explores a particular literature, uses it to illustrate more general problems in the credibility of the health psychology literature, and ends with concrete recommendations for reform.

The worrisome state of research concerning couples interventions for cancer patients: A systematic review

Ioana Cristea¹, Nilufer Kafescioglu, James C. Coyne

¹University of Pisa, Italy

Background: Badr and Krebs (2012) conducted a systematic narrative review and meta-analysis of psychosocial interventions for couples facing cancer that was uncritical in reporting uniformly positive findings for interventions. **Methods:** We relied on their systematic search for a re-review, paying particular attention to the methodological quality of studies and the accuracy of reporting of findings. **Findings:** Excluding studies that were underpowered as well as trials with medical co-intervention confounding reduced the pool of studies from 20 to 9, leaving few individual studies with significant findings. There was a pervasive confirmatory bias in the depiction of findings in abstracts such that null effects sizes derived from results sections were consistently depicted in abstracts as positive. **Discussion:** Published reports are unreliable. We call for pre-registration of trial designs and primary outcomes. Journals should enforce greater adherence to CONSORT guidelines for abstracts of clinical trials and congruence of abstracts with actual results.

Too good to be true: Health psychology depends too much on positive underpowered studies

James C Coyne¹

¹University of Groningen, Netherlands

Background: Many randomized trials in health psychology have less than 35 participants in the smallest group, which means they have less than a 50% probability of detecting a moderate sized effect for an intervention, even if it were present. **Method:** A re-review of published meta-analyses concerning the efficacy of psychological interventions for pain and distress in cancer patients. Studies were coded for whether they met criterion of having > 35 patients in the smallest group.

Forest plots were examined as published, and with underpowered studies removed. **Findings:** The bulk of studies routinely entered into meta-analyses are underpowered, and yet claimed to be positive findings at a statistically improbable rate. Excluding the studies leaves little evidence of the efficacy of psychological interventions for cancer patients. Conclusion: Journals should insist on acknowledging unreliability of small, positive trials.

Inaccurate abstracts in health psychology: The problem and an easily implementable solution

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Background: Abstracts need to be clearly and accurately written because many readers do not read further when searching literature. We present findings concerning abstracts from three health psychology journals which frequently publish clinical trials (Health Psychology, Annals of Behavioral Medicine, Psychosomatic Medicine). **Methods:** We developed a methodology for rating accuracy and bias (or 'spin') of abstracts, particularly in terms of declared primary outcome. We searched databases 2006-present, identifying 444 abstracts and rated them. **Findings:** Few trials had independently verifiable primary outcomes and this was the case across journals. Most abstracts reported a positive outcome, accomplished by ignoring null or negative primary outcomes or by emphasizing secondary outcomes or post-hoc subgroup analyses. **Discussion:** Accuracy in abstracts of clinical trials has implications for the credibility of evidence. Journals need to enforce accurate and transparent abstracts.

The importance of being earnest: Trial registration and full disclosure in publishing in health psychology

Martin Hagger¹

¹Curtin University, Australia

There have been recent calls for increased disclosure of important methodological, statistical, and data components of research reported in publication outlets. This is particularly important to ensure that the research can be replicated (e.g., intervention manuals and protocols) and data can be subjected to secondary analyses. This is extremely relevant given the proliferation of systematic reviews and meta-analyses to synthesize research findings and it is important that such syntheses are not biased due to lack of data availability. Currently, most journals operate a voluntary code in terms of disclosure and there is inconsistency in the application of guidelines for the clear reporting of research findings such as CONSORT or MARS. This means that researchers' ethical obligations to make their findings readily available to others are not subject to strict control. Clearer guidelines need to be put in place by journal editors in order to ensure that authors fulfill these obligations without compromising ownership over data and protocols. Similarly, many journals are now making formal registration of trials by an approved regulatory body (e.g., WHO international clinical trials registry, Australian and New Zealand Clinical Trials) obligatory. This is a useful as registry permits formal logging and sharing of information about current trials including detail on the focus, design, and ethical aspects. Currently this is voluntary in most health psychology journals, but with Open Access journals leading the way, this is likely to be revised. This will be a positive step, along with the disclosure of research data, toward better transparency in research.

Characterizing the active content of behaviour change interventions

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The symposium will (1) give participants an overview of progress that has been made over a decade of research into how intervention components determine differential effectiveness, (2) demonstrate the potential of meta-analyses to provide guidance to intervention designers, and (3) highlight the complexities and practical problems of linking intervention components to efficacy. Different methods and key methodological challenges in identifying intervention components associated with effectiveness will be discussed. The symposium is timely and important because of the advances that have been made in this area and because of the proliferation of work on behaviour change intervention design and evaluation. Four 15-minute talks will each be followed by 5 minutes for questions before the discussant summarises key points and invites audience discussion.

Behaviour change techniques succeed best under optimal circumstances

Blair T. Johnson¹, Carter A. Lennon, Tania B. Huedo-Medina, Michelle Spina, Michael Sagherian, Estrellita Ballester

¹University of Connecticut, United States

Background: This meta-analysis examined the role of gender and social structural features in the success of controlled trials of behavioural interventions to reduce risk of HIV infection that focused on heterosexual samples in the U.S. **Methods:** Interventions (k=188) were retrieved. Recorded were behaviour change techniques (BCTs), community-level variables (e.g., income) and efficacy (condom use or unprotected intercourse). **Results:** Interventions succeeded better when targeting gender specifically, using more BCTs (especially for younger samples, in communities that were poorer, or that had less supportive attitudes toward women). **Discussion:** Reducing risk for HIV depends not only on BCTs but also on their relevance to the sample and the circumstances participants face once they depart from the intervention. Efficacy can be quite large under optimal conditions (e.g., match of BCTs to sample) but under other circumstances (e.g., lower relevance, higher community stress levels), interventions on the average fail.

Identifying the active content of ‘usual care’ and its determinants in intervention and observational studies

Marijn de Bruin¹

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Background: This review examined whether the active content of usual care provided to ‘non-intervention study participants’ (control group or observational study participants) could be reliably assessed, varied between studies, and which health care provider and organizational determinants predict ‘quality of usual care’. **Method:** Systematic review of intervention and observational studies including patients treated for HIV. Study authors completed a standard care checklist. Reliability and regression analyses were conducted to check reliability and predictors. **Results:** Usual care could be reliably assessed, varied considerably between studies and was predicted by the level of training of the health care provider, clinic management norm regarding

adherence care, and the budget available for training health care providers. **Discussion:** It is possible to identify active behaviour change intervention content and its determinants through studying usual care ('best practices'). Usual care should be reported in all study types to permit interpretation, generalization, and replication of study results.

Everything Should Be Made as Simple as Possible, but Not Simpler: Acknowledging Conditional BCT Effectiveness

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¹Open University, Netherlands

Background: It is important to identify effective methods of behaviour change (or BCTs). A popular method is to compare, for each method, the effect sizes of interventions that include that method to those that do not. Inclusion of a method can be associated to smaller or larger differences in effect sizes, which are then considered indicative of method effectiveness. However, this approach neglects the fact that methods are only effective under specific conditions. I explain this situation and propose solutions. **Method:** We conducted a narrative review, also involving recent meta-analytical data. **Results:** Acknowledging conditions for effectiveness renders determining the relative efficacy of different methods of behaviour change less straightforward. Nonetheless, failing to acknowledge these dynamics can easily lead to erroneous conclusions. **Discussion:** Two solutions are proposed. First, only coding methods as present when their conditions for efficacy are met; and second, reviewing more fundamental evidence (experiments) instead of intervention evaluations.

Developing and applying behaviour change component classification systems

Charles Abraham¹

¹University of Exeter Medical School, United Kingdom

Background: A variety of taxonomies, classification systems and coding frameworks have been developed to identify common features which may be associated with the effectiveness of behaviour change interventions. **Method:** These and the findings they have generated are reviewed and illustrated. **Findings:** The results of such investigations demonstrate the potential of meta-analyses and meta-regression techniques to guide intervention development but also highlight the complexity of required coding processes and especially reliability of data extraction and comprehensiveness of intervention descriptions. **Discussion:** Extracting data from descriptions in manuals using robustly reliable data extraction classification systems is recommended. In addition, it is recommended that a variety of intervention components including specific targeted behaviour patterns, change techniques, frequency of technique use, delivery mode(s), tailoring, intervention development processes and intervention-context match characteristics are coded.

Smoking cessation - new technologies and public interventions: Lessons learned

Steven De Peuter¹

¹BrandNewDay, Belgium

Within this symposium (large-scale) smoking cessation interventions are critically evaluated in the light of a changing public awareness and governments' anti-tobacco policies. Results from a

pan-European, digital, individually tailored stop smoking intervention are presented, comparing the use of an online versus a mobile digital coach. The effect of web-based tailored text messages is compared to web-based video driven messages. Furthermore, the impact of the public smoking ban in the Netherlands is discussed. Finally, the Learning Abstinence Theory is proposed, stressing the importance of a gradual and conscious quit attempt, conceptualized as a learning process. The mixture of theoretical contributions and experimental data from field studies and a population-based intervention will provide the audience with a state of the art of emerging trends in applied smoking cessation.

Ex-Smokers are unstoppable: From online coach to mobile app; and the use of group identity

Steven De Peuter¹, Claudia Put

¹BrandNewDay, Belgium

Background: iCoach is the freely available, online, tailored smoking cessation coach supporting the EC's "Ex-Smokers are unstoppable" campaign, recently also released as a mobile app and in a FC Barcelona version. **Methods:** We carefully selected crucial content and interactive tools from the online coach to ensure usability of the mobile app. Furthermore, interactive elements were added to optimize the mobile experience. For FC Barcelona the content was re-written (a) in terms of relevant motivational supportive advice within a football and sports context and (b) as if coming from top players and the club's management. **Findings:** Over 260 000 European smokers registered online, 40 000 through the mobile app. Since its launch, an additional 25 000 smokers registered on the online FC Barcelona iCoach and 9 000 through the mobile app. **Discussion:** Emerging technologies – smartphones – hold challenges for digital health coaching, but also opportunities. In addition, existing social identities may be promising motivational perspectives.

Ex-Smokers are unstoppable: Are smokers attracted by a strong social (group) identity?

Claudia Put¹, Steven De Peuter

¹BrandNewDay, Belgium

Background: iCoach is the freely available, online, tailored smoking cessation coach supporting the EC's "Ex-Smokers are unstoppable" campaign, recently also released as a mobile app and in an FC Barcelona version. **Methods:** Comparing the different coaches' users' profiles. **Findings:** The FC Barcelona iCoach attracts, on average, younger users who are more likely to be male than users of the 'regular' iCoach. Furthermore, users of the FC Barcelona iCoach are less likely to have received secondary education as their highest diploma and more likely to be student. Remarkably, a considerable amount of non-smokers (23.5% of registrations) registered on the FC Barcelona iCoach (vs. 12.5% for the 'regular' iCoach). Finally, FC Barcelona iCoach users who smoked were less motivated to quit smoking. **Discussion:** Embedding health promotion interventions in existing strong social (group) identities may attract users that are otherwise hard to reach. The interventions' effectiveness in those groups will be investigated when more data become available.

Testing the effects of text versus video based E-health messages on smoking cessation

Nicola Stanczyk¹, Catherine Bolman, Math Candel, Jean Muris, Hein de Vries

¹Maastricht University, Netherlands

Background: A web-based text and a web-based video driven computer tailored (CT) intervention were studied on effectiveness in LSES and HSES smokers. **Methods:** We used a RCT with a 3 (video/text/control)* 2 (LSES/HSES) design. Smokers willing to quit within 6 months (N=2251) were eligible for participation. Logistic regression analysis is used to assess program effects on respectively 7-day point prevalence and continued abstinence after 6 months. **Results:** Results showed that 28.3% of the respondents quit smoking. In the video condition more respondents quit smoking (PPA) (33.2%) compared to the text condition (29.1%) and the control condition (23.4%); ($X^2=10.071$, $df=2$, $p=.007$). Results are unadjusted for baseline and possible covariates; more complete logistic regression analyses are conducted soon, completed with a program evaluation. **Discussion:** Multiple CT smoking cessation interventions can be effective with regard to smoking abstinence.

Self- and group-identity processes in the context of the Dutch smoking-ban in hospitality venues

Winnie Gebhardt¹, Eline Meijer, Colette van Laar, Marc Willemsen, Arie Dijkstra

¹Leiden University, Netherlands

Background: Although long recognized as important, identity has been remarkably little studied in relation to smoking. We investigated whether smokers perceived that their self- and group-identities had changed after the smoking-ban in hospitality venues. **Methods:** 188 smokers completed questionnaires. **Findings:** Active quitters and social smokers had become more, and rejecters and victims less motivated to quit after the smoking-ban. Rejecters felt more connected to smokers, and less to non-smokers. Moreover, they were less able to see themselves as non-smoker. Victims also saw themselves less as non-smoker, but showed no changes in group-identities. Active quitters felt less connected to smokers, and more to non-smokers, and saw themselves more as non-smoker. Social smokers had changes similar to the active quitters, but had not changed their non-smoker self-identity. **Discussion:** We suggest that anti-smoking measures will become more effective when addressing (different types of) smoker's identity needs. Particularly changes regarding non-smoker self- and/or group-identity appear to be of importance.

A new perspective on relapse prevention: Learning abstinence theory

Arie Dijkstra¹, Karin Menninga

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Background: The starting point is the observation that during a successful quit attempt, ex-smokers fundamentally change their perspective on their smoking and abstinence. How is this happening? In the Learning Abstinence Theory (LAT) it is proposed that this transfer occurs when ex-smokers learn about smoking and not smoking. On the one hand, ex-smokers learn on a

concrete level about the noticeable effects of their abstinence. On the other hand, ex-smokers learn on a more abstract level about the progress they make towards the final goal of easy and continued abstinence. **Methods:** Two premises of the LAT were tested empirically: 1) What ex-smokers learn and, thus, whether they will remain abstinent or not depends on how they perceive situations in which they used to smoke; 2) ex-smokers construe their own progress. **Findings:** Both aspects of the LAT were supported. **Discussion:** The practical consequences of the LAT perspective for smoking cessation interventions will be outlined.

Brakes and motivations to vaccination: Understanding immunization choices

Aurelie Gauchet¹

¹University of Grenoble, France

Aims: Those studies examine how models in health psychology can contribute to understand vaccination decision. **Rationale:** It is important to discuss about brakes and motivations to vaccination because it's an actual health issue for the prevention. **Summary:** All the presentations deal with vaccination decision, through social and health psychology contributions. **Timetable:** 1) « If it's recommended, it's not obligatory, it's therefore unnecessary ». A psychosocial analysis of the brakes to flu vaccination among nurses in France. 2) The role of time perspective in influenza vaccination decision: findings from a prospective study in a community sample of people aged 65 and over. 3) Healthy adults' knowledge, perceptions and attitudes toward seasonal influenza vaccination: the example of college students. 4) How to promote hepatitis B vaccination of a new born.

How to promote hepatitis B vaccination of a new born

Aurelie Gauchet Amélie Crépin¹

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Background: This study examines how hepatitis B knowledge, perceptions of risk and motivation influence vaccination decision among parent's new born. **Method:** In 2012, 70 young parents were interviewed in Grenoble's clinic using a questionnaire and qualitative interview. **Results:** Results show that people are more afraid of side effects of the vaccine than hepatitis B disease. Their knowledge about hepatitis B and vaccine is quite bad. The main motivations for vaccination are: prevention or because it was recommended by physicians. The reasons for non-vaccination are mainly: bad information, not be concerned, dangerous side effects. What is important for supporting vaccination is recommendation by physician, better information on hepatitis B and efficacy of the vaccine, and its side effects. **Conclusion:** Through the Health Action Process Approach model, these results offer a good trail to promote hepatitis B vaccination among new born.

Healthy adults' knowledge, perceptions and attitudes toward seasonal influenza vaccination: the example of college students

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Background: This study examines how flu's knowledge, perceptions of risk and motivations influence flu vaccination decision among college students. **Methods:** At the end of the national

influenza vaccination campaign, 185 first students (data collection is still in progress) were interviewed using a questionnaire. **Findings:** Results show a high rate who already got the flu but 54% had never been vaccinated. Their knowledge about the flu is quite bad. The main motivations for vaccination are: not to be absent or because it was recommended by attending physicians. The reasons for non-vaccination are primarily: good health, not be concerned, existence of treatment, not be informed and, dangerous side effects. The measure supporting vaccination according participants is mainly recommendation by attending physicians, better information on efficacy of the vaccine, on its side effects and, free flu shot. **Discussion:** Through an enhanced Health Beliefs Model, these results offer a good trail to promote influenza vaccination among college students.

“If it’s recommended, it’s not obligatory, it’s therefore unnecessary”. A psychosocial analysis of the brakes to flu vaccination among nurses in France

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¹Université d’Aix-Marseille, France

This research, supported by the study group on the risk of exposure of caregivers to infectious agents (GERES), was carried out following a viewpoint formulated in the last national Vaxisoin survey: « There is likely a specific brake to flu vaccination, which originally should be investigated by psychosocial studies. » (Guthmann et al., 2011, p.374). The objective was therefore to study the reasons that are upstream of the refusal of the vaccine among nurses. Eight nurses from three french hospitals were interviewed by means of semi-structured interviews which were completely retranscribed and analysed by means of a thematic analysis. Brakes referring to doubt about the vaccine efficacy, financial stakes, inflected trust by referring to H1N1 were mentioned. Moreover, we found a social construction of the recommendation which bring nurses to consider flu vaccination as unnecessary. The results will be discussed around the question of the relevance of a psychosocial approach.

The role of time perspective in influenza vaccination decision: findings from a prospective study in a community sample of people aged 65 and over

Nicolas Fieulaine¹, Frederic Martinez

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This study investigated how and for whom time perspective (TP), referring to the ways in which an individual views his/her past, present and future, can influence vaccination decisions. During a national influenza vaccination campaign, a community sample of 168 people aged 65 years and over participated in a three-waves study, using a questionnaire assessing time perspective, planned behavior components, together with measures of exposure to messages promoting vaccination. Results demonstrated the unique predicting role played by TP in vaccination decision, particularly the focus on the present. Whereas focus on the present in a fatalistic attitude is positively related to subsequent vaccine uptake, hedonistic attitude towards the present significantly predicts non take up. The same TPs also appeared as moderating the impact of information exposure on the evolution of intentions during the vaccination campaign. These results demonstrate the pivotal role of psychological view on time in the understanding of vaccination decisions.

Exploring when and how self-affirmation works

Peter Harris¹, Benjamin Schuez, Urte Scholz, Guido van Koningsbruggen, Richard Cooke

¹University of Sussex, United Kingdom

Aims: To: update delegates on achievements facilitated by an EHPS networking grant, present state-of-the-science findings, discuss the meaning of the findings for subsequent theoretical and applied research (e.g., interventions), promote awareness of the award and research topic. **Rationale:** This year's conference provides the ideal opportunity to update members about progress, as findings from the studies the grant enabled become available for the first time. **Summary:** The contributions provide new evidence concerning when and how self-affirmation (e.g., reflecting on important personal values/attributes) reduces defensive resistance to health-risk information. They demonstrate that self-affirmation decreases resistance regardless of threat level (Cooke, exercise) and to genuine emotive warnings (Schuez, alcohol), and may do so by increasing anticipated regret (van Koningsbruggen, diet). However, they remind us that backfire effects occur (Radtko, alcohol) and we need to know more about when and why.

Does self-affirmation promote physical activity regardless of threat level?

Richard Cooke¹, Laura Hart, Peter Harris, Urte Scholz, Benjamin Schuez, Guido van Koningsbruggen

¹Aston University, United Kingdom

Background: Self-affirmation (i.e., focusing on a valued aspect of the self-concept) can promote health behaviour change. This study aimed to see if self-affirmation increased physical activity (PA) regardless of threat level presented in health messages. **Methods:** Sixty-eight participants were randomly allocated to condition in a 2 (self-affirmation, no affirmation) x 2 (high threat, low threat) between-participants design. Participants completed the Godin Leisure-Time Exercise Questionnaire at baseline and one week later to assess PA. **Findings:** A two-way ANCOVA with affirmation condition and threat level as predictor variables, controlling for baseline PA, was performed on follow up PA. Baseline PA was a significant predictor ($F(1,63) = 399.63, p < 0.001$) and the main effect of affirmation condition approached significance ($F(1,63) = 3.55, p = 0.06$). There were no other significant effects. **Discussion:** This study provides further evidence that self-affirmation can increase PA, but found no interaction between self-affirmation and threat level presented in health messages.

Making health risk messages more salient: Self-affirmation enhances the effects of emotive alcohol warning campaigns

Benjamin Schuez¹, Alex Brown, Jess Phair, Josh Westland, Jenn Scott

¹University of Tasmania, Australia

Background. Emotive health promotion campaigns are core tools of public health. However, their effects are often smaller than desired. This study tested whether enhancing emotive alcohol warning campaign materials with self-affirmation, the process of focusing on key individual values and accomplishments, affects intentions to reduce alcohol consumption and alcohol consumption

in the campaign target group (young adults). **Method.** Randomised exploratory trial (121 undergraduate students); random allocation to a self-affirmation or attention control condition before viewing emotive graphic alcohol warning posters. Intentions and behaviour were assessed via self-report, follow-up after one week. **Findings.** Moderated mediation analyses indicate that self-affirmation leads to higher intentions in participants with higher behavioural risk profiles, and that these intentions mediate effects of the intervention on reducing alcohol consumption. **Discussion.** These findings support the use of self-affirmation to enhance the effects of emotive health promotion, particularly in at-risk populations with high levels of baseline risk behaviour.

Boosting anticipated regret and health behavior change through self-affirmation

Guido M. van Koningsbruggen¹, Peter R. Harris, Anjes J. Smits, Urte Scholz, Richard Cooke, Benjamin Schuez

¹VU University Amsterdam, Netherlands

Background: It may be tempting to elicit anticipated regret in health communications because of its positive influence on persuasion. However, this is not always appropriate and can trigger defensive responses. We tested whether self-affirming before message exposure results in similar beneficial effects. **Methods:** We manipulated self-affirmation before exposing female participants to a message promoting fruit and vegetable consumption. Anticipated regret and intentions were measured, followed by a food-choice task (Study 1; N=42) or a one-week follow-up measuring consumption (Study 2; N=91). **Findings:** Self-affirmation increased anticipated regret and intentions, and regret mediated the self-affirmation effects on intentions. While there was no effect on the food-choice task, self-affirmation increased consumption in the week following the intervention in Study 2. **Discussion:** Self-affirmation before exposure to health communications boosts anticipated regret and promotes health behavior change. Furthermore, by demonstrating the mediating role of anticipated regret, we provide insights into how self-affirmation promotes healthy intentions.

Self-affirmation: Findings concerning alcohol consumption

Theda Radtke¹, Urte Scholz

¹University of Konstanz, Germany

Background: Self-affirmation reduces the need for defensive self-regulation strategies as response to risk information and thereby motivates health-behavior change. This study's aim was to test whether self-affirmation increases risk awareness and facilitates intentions to reduce alcohol consumption. **Methods:** In an online-experimental study (N = 546; M = 24.11, SD = 6.48), self-affirmation (SA) was manipulated by allowing participants to affirm a value that was either personally important (treatment group) or unimportant (control group) to them. Afterwards participants were exposed to a health risk message about alcohol consumption. **Findings:** Although self-affirmed participants thought more about their values, they reported lower intention to consume alcohol according to the governmental drinking guidelines than control group participants. For risk awareness no significant differences between both groups was found. **Discussion:** Results are not in accordance to our hypotheses. Future studies might want to test other SA treatments in an online design.

“Emotions Apart”: Alexithymia as a major risk factor to health – Psychological and neurobiological mechanism

Beate M. Herbert¹, Karni Ginzburg

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Aims: To demonstrate in alexithymia: mediating and moderating factors explaining the pathogenicity; automatic and controlled mechanisms of emotion processing and regulation; specific effects on well-being of individuals with alcohol-dependence and non-clinical subjects. **Rationale:** Alexithymia is a multifaceted personality trait that comprises deficits in the abilities to identify and describe one's feelings and emotion regulation. It represents a vulnerability factor for mental and physical diseases. The processes through which it impairs health and well-being have not been fully established. This symposium highlights relevant mechanisms. **Summary:** The presentations provide empirical support for different pathways through which deficits in identifying, symbolizing, and regulating emotions are implicated in neurobiological, emotional, cognitive, and behavioral mechanisms affecting health.

Alexithymia and anxiety: The mediating role of monitoring of somatic sensations and catastrophizing

Karni Ginzburg¹, Noga Tsur, Ruth Defrin

¹Tel Aviv University, Israel

Background: Studies documented an association between alexithymia and anxiety. One explanation for this association is that high-alexithymic individuals, which have difficulties in symbolization of their emotional states, tend to focus on the somatic sensations of emotional arousal, and misinterpreted them as signs of physical illness. This study examined the hypothesis that the association between alexithymia and anxiety is mediated by the tendencies to monitor the body for somatic sensations and to catastrophize these sensations. **Methods:** 103 students filled in questionnaires, assessing alexithymia, the tendency to monitor somatic sensations, pain catastrophizing, and anxiety. **Findings:** The results point to a serial multiple mediation model. According to this model, alexithymia increased the tendency to monitor somatic sensation, which in turn intensified catastrophizing, resulting in elevated levels of anxiety. **Discussion:** These results suggest that interventions targeting the tendencies to monitor somatic sensations and catastrophize these may be effective in reducing anxiety among high-alexithymic individuals.

Alexithymia is associated with altered top-down control of behavior – Implications for self-regulation

Beate M. Herbert¹, Olga Pollatos

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Background: Alexithymia reflects deficits in processing and experiencing emotions and regulating emotional states through cognitive processes. However, findings on behavioral self-regulation associated with alexithymia are sparse. Therefore, we investigated if top-down control of behavior

in emotional and neutral contexts is related to alexithymia in healthy persons. **Methods:** Response inhibition represents a key function of executive control. The Stop Signal Task was used to estimate Stop-Signal-Response-Time (SSRT) in positive, negative and neutral picture contexts (47 students, 20 men, 27 women). **Findings:** Alexithymic facets negatively correlated with SSRT in neutral, and positively in emotional contexts. There were no significant results for Mean-Go-Reaction-Time. **Discussion:** Alexithymia is associated with a greater capacity of response inhibition in neutral situations. This capacity becomes compromised in an emotional setting, suggesting deficits in self-regulation. This underscores the relevance of altered self-regulation and inhibitory functions in alexithymia as a basic mechanism for understanding its role for health and illness.

Alexithymia und automatic processing of masked emotional faces: Evidence from fMRI and morphometry

Harald Kugel¹

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Background: Alexithymia is a trait describing deficits in identification and description of emotions. Research on its neurobiological basis usually concentrated on altered controlled processing of emotional information. Here we want to present the automatic processing of emotional stimuli as function of alexithymia, in which the amygdala plays a prominent role. **Methods:** Automatic reaction of the brain on emotional faces was investigated with functional MR imaging and correlated with individual scores on the 20-item TAS in different volunteer groups (21-33 volunteers). **Findings:** The subscale 'difficulties to identify feelings' correlated negatively with amygdala reaction on masked sad faces. These findings are supplemented by a morphometric study showing reduced gray matter of left amygdala in high alexithymics. **Discussion:** This shows possible neurobiological underpinnings of alexithymia: reduced automatic amygdala reaction in high alexithymia may be interpreted as reduced automatic encoding of emotional stimuli, leading to difficulties with identification and differentiation of own feelings.

Alexithymia: A vulnerability factor for women but a protective factor for men with alcohol dependence

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¹Université Catholique de Louvain, Belgium

Background: Alexithymia has been described as a vulnerability factor for mental and physical diseases. There is, however, a lack of studies investigating if some variables could moderate this association. **Methods:** We investigated in a group of men and women with alcohol-dependence the association between negative affect and craving for alcohol when these patients were starting a detoxification program. **Findings:** We showed that depending on the gender of the respondents the moderating impact of alexithymia worked in opposite directions. For women, the link between negative affect and craving was strengthened for those scoring higher on "difficulties identifying feelings", while for men, the link between negative affect and craving was reduced for those scoring higher on "externally-oriented thinking". **Discussion:** These findings suggest that in some cases that need to be identified more systematically in the future, alexithymia can exert – at least in the short term – some protective effects.

Well-being and ill-being in ‘marginal’ and ‘transitional’ populations

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Well-being is central to current debates around the assessment of the wealth of nations and the happiness of populations. However, health psychology continues to be wedded to a notion of well-being which emphasizes the absence of mental health problems. In this sense, well-being is actually conceptualized psychologically as ‘ill-being’. This is typically assessed in terms of low scores on widely used scales of depression, anxiety and distress. While well-being, ill-being and physical health are concepts with several overlapping meanings, it is nevertheless useful particularly in the context of long-term conditions to formulate these concepts separately and investigate them as separate outcomes in intervention and observational studies. In this way, it becomes possible to disentangle the relationship of well-being and ill-health to health outcomes. This symposium brings together researchers who investigate issues of well-being and ill-health and their relationship to physical health in ‘marginal’ and ‘transitional’ populations and explores the ways in which health and social care services can best improve well-being and reduce ill-health in marginalized and transitional populations.

Understanding student wellbeing: A micro-visual experience sampling approach

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Wellbeing, often framed as hedonic and eudemonic wellbeing, is frequently measured using global scales at a macro level. Here a micro approach is taken, linking wellbeing to everyday activity as they transition into university life. Using an Experience Sampling Method 12 students were randomly alerted via mobile phone 5 times a day (over 1 week). They recorded a voice memo on what they were doing and how they were feeling, represented this in a photograph, rated their subjective wellbeing, and answered open-ended questions. The activity accounts were analysed into activity categories, verbalisations were thematically analysed and questionnaire data were statistically analysed. The content, thematic and statistical analysis combined with real time visual data provided substantial insights into everyday activity and wellbeing. Findings indicate that students enjoy university life but experienced boredom and social anxiety alongside practical concerns. The fluctuating nature of wellbeing and its extension beyond hedonic/eudemonic conceptualisations is discussed.

Adolescent academic stress and anxiety in Pakistan – Do Western measures work in Pakistan?

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Anxiety is one of the most common forms of emotional disorder in adolescence. Anxiety disorders are associated with significant impairment in a variety of life domains and tend to run a

stable course if unrecognised and untreated. Our research aimed to investigate the prevalence and correlates of adolescent anxiety in Pakistan. In this paper we present data on anxiety disorders in 1314 adolescents aged 12-19 in Pakistan using the Spence Children's Anxiety Scale (SCAS) related to academic stress (Academic Expectancy Stress Inventory, AESI). In comparison with prevalence data in European countries, Pakistani adolescents yield very high scores on both academic stress and anxiety. However, the six correlated factor model of child anxiety disorder based on DSM-IV does not produce a good fit for the data from Pakistan. This raises the question whether the well-established Western model of childhood anxiety is generalizable to non-Western countries and whether Western measures are appropriate for assessment.

Assessment of well-being and ill-being in Pakistan

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Health psychology is an emerging and relatively new discipline in Pakistan compared to clinical psychology; thus psychological health and well-being are assessed mostly within a clinical framework as the absence of psychological distress, anxiety, depression and other psychiatric symptoms. Western tools have been used either in English or after translation into Urdu (the national language). However, very few scales have been translated using MAPI guidelines which provide systematic guidance on translation and linguistic validation. Costs and effort associated with this process have led to the development of indigenous tools ranging from generic health screening questionnaires to disorder specific questionnaires (e.g. for OCD, eating disorders and stress problems). There are a few studies where well-being has been assessed directly using psychological wellbeing scales. There is a need to develop indigenous scales for the assessment of psychological wellbeing as conceptualization and representation of health and well-being may vary from culture to culture.

The UK 2008/09 recession and mental health in people seeking help for financial problems

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The UK economic recession 2008/09 resulted in a rise of unemployment and unexpected changes to household income. Prevalence estimates of poor mental health in relation to financial hardship tend to be identified by focussing on unemployed individuals. This paper reports the findings of cross-sectional online UK survey (n = 953) which explored prevalence estimates of 'emotional distress' (i.e. depression, anxiety and stress) in individuals who experienced changes to their work status or income or contacted a national charity with the aim of getting advice and support. Correlation and regression analysis were used to relate mental health to other psychosocial factors and health behaviours (social support, emotion regulation, diet, physical activity). The results show a high prevalence of 'emotional distress' symptoms for individuals who experienced 'loss of hours' at work and/or income, demonstrating the importance of re-constituting the meaning of financial hardship to better capture the effects of the economic recession.

How a lifespan perspective can expand our view of health behaviour and health

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Aims: 1. Demonstrating the age-differential impact of health and health behaviour predictors. 2. Tackling the importance of an age-group tailored approach for different health behaviour domains. 3. Discussing implications of a lifespan perspective for modelling the motivation-volition-behaviour-health chain. **Rationale:** Health behaviour models need to encompass a lifespan perspective for developing a deeper understanding of changes in health behaviour and its consequences for physical and psychological health. Considering the demographic change, providing age-group valid health behaviour models appears to be a core challenge for health psychology. **Summary:** The impact of core social-cognitive predictors of health behaviour change differs systematically across age groups (Klusmann). Interestingly, developmental transitions might act as facilitators or barriers of health behaviour (Simpson) and context factors (Wiest), personal dispositions (King-Kallimanis), and lifespan history of health behaviour (Gellert) are keys to positive health behaviour patterns and well-being in older age.

A negative view on aging means less healthy eating

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Background: With increasing age, people develop a more negative view on aging (VoA) which was shown to result in lower levels of exercise and functional health. We investigated whether VoA is associated with nutrition in different age groups and what might be the mechanisms. **Method:** 1241 participants, aged 18-93 years, underwent 2-hour health check-ups. **Results:** We found that for all age groups perceiving aging as ongoing development was accompanied by more healthy eating (mean direct effect $B=.46$, $p=.02$). Action ($B=.21$) and maintenance self-efficacy ($B=.25$) mediated this effect, $R^2=.09$, $F(4,1236)=30.43$, $p<.001$. The model did also hold when controlling for possible confounders, $R^2 = .16$, $F(9,1207)=26.07$, $p<.001$. In old people (70+) the indirect effect is strongest through maintenance self-efficacy ($B=.78$). **Conclusions:** Given that in old age the risk of malnutrition increases, maintaining a positive VoA appears to be crucial. The way for successful aging in terms of health behaviour seems to be paved in younger adulthood.

The menopausal transition may act as a facilitator to physical activity

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Menopausal symptoms (hot flushes, night sweats) may contribute to a decline in quality of life, in some women. Physical activity (PA) may help to combat this. In a cross sectional study of 82 Northern Irish women, aged 18-66 years ($M=44$ years), we compared PA and sedentary behaviour in pre, peri and postmenopause. Within the groups, 54%, 64% and 79% respectively reported MET minutes, equivalent to the UK guidelines on PA. Pre-menopausal women reported higher levels of vigorous PA MET minutes compared to the other groups, $F(2,81)=3.74$, $p=.03$, no differences emerged for moderate PA or TV viewing, although average hours of daily TV watching

in all groups were above the recommended levels for health (>3.5 hours). Postmenopausal women were more active, contrary to previous research reporting declines in PA with age. Menopause may be a time where women are more conscious of promoting and maintaining their health.

The association of activities and functional health in old age: Context matters

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Although being active protects functioning, in old age functioning becomes a precondition for activities. Also, the environment may inhibit or facilitate both health-enhancing activities and functioning. Using longitudinal data from the German Ageing Survey (age range: 65-91, N = 3.852), multilevel models were estimated to examine the association of activities and functional health, variation between districts (n = 209) and the effect of district wealth (Gross Domestic Product). Results show that being functional healthy and active predicts better health and more activities over time ($\beta_{\text{funh} \rightarrow \text{act}} = .16$; $\beta_{\text{act} \rightarrow \text{funh}} = .16$). Both levels of health and activities significantly varied across districts ($\sigma_{\text{funh}} = .05$; $\sigma_{\text{act}} = .06$) and the effect of functional health on activities differed by district ($\sigma = .02$). Further, older people living in wealthy districts were more active ($\beta = .51$). Context factors thus may not be disregarded when predicting health behaviour and health in old age.

Aging perceptions and frailty help to explain differences in quality of life across age

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For older adults, the concept of quality-of-life (QoL) is different than for younger adults. Therefore, we investigated differences in item responses (bias) according to chronological age, aging perceptions (AP), frailty and sex. Data come from the Irish Longitudinal Study on Ageing (TILDA), a representative sample of community dwelling adults +50 (n=5,519). Multiple indicators, multiple causes (MIMIC) modelling was used to investigate bias. A two-factor, Control/Autonomy and Self-Realization/Pleasure measurement model was fit and extended into two MIMIC models. M1 included chronological age and sex, M2 also included frailty and AP. In M1, bias (four items) was associated with older age. In M2, biases (three items) were associated with AP and frailty rather than age. AP, frailty and QoL were significantly related; including AP and frailty resulted in direct effects previously associated with age being replaced. AP and frailty help to explain differences in QoL previously associated with age.

Retrospectively measured physical activity over lifespan predicts physical activity outcomes

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Physical activity levels decrease with age, but with strong variability between individuals. By tracing physical activity over lifespan using retrospective assessment, subgroups with different life

course trajectories could be identified and used as predictors of current physical activity outcomes. Current and retrospective physical activity and psychological variables were assessed at baseline and 6- and 12-month follow-up in 335 older adults (60–95 years of age). A mixture of growth curve modelling and latent class modelling was applied. The final growth model fit the data well (CFI=.99, RMSEA=.05). Three lifespan trajectories emerged: (1) maintaining high, (2) decrease from childhood to 30 years, and (3) low in childhood and increase after 30. These categorisations resulted in differential prediction patterns for behavioural, social-cognitive and well-being variables at follow up. These findings emphasise potential additional value of retrospectively measured physical activity for both theory development and health promotion.

Social support and cancer: Prevention, treatment, and survivorship issues

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Aims: This symposium offers an insight into the processes of social support in the context of cancer prevention, early and later stages of cancer treatment, and survivorship problems. **Rationale:** We will discuss the functions of support from professional and non-professional caregivers in the context of cancer-related behavioral outcomes, quality of life, and well-being. **Summary:** In a diary study discussing partner support provided after a self-quit day Scholz shows the role of instrumental/emotional support for cigarette smoking. A systematic review by Luszczynska indicates that support from professional caregivers relates to lung cancer patients' quality of life more often than support from other sources (e.g., friends/family). A dyadic study by Knoll indicates that only visible parts of supportive interactions relate to with higher next-day positive affect in prostate cancer patients and their partners. Finally, results of a RTC by Rini suggest that providing peer support through expressive writing benefits survivors.

With a little help from my partner: Preventive functions of social support in smoking cessation

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Background: Social support received from one's partner is assumed to be beneficial for successful smoking cessation. This study examined the associations between everyday levels of received emotional and instrumental support and smoking around a self-set quit date. **Methods:** Overall, 99 smokers (28.4% women, mean age = 40.55, SD = 9.46) completed daily diaries on received emotional and instrumental social support and smoking 10 days before and 21 days after a self-set quitdate. **Findings:** More receipt of emotional and instrumental social support was related with fewer cigarettes smoked but only after the quitdate. Moreover, on those days after the quitdate when people received more emotional support than usual, they were more successful in not smoking. **Discussion:** Receiving emotional and instrumental social support has beneficial effects on smoking cessation after a self-set quitdate. Findings emphasize the need of a prospective daily diary approach for understanding the dynamics of support in smoking cessation.

Social support and quality of life among lung cancer patients: A systematic review

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Background: This systematic review analyzed the relationships between facets of social support and QOL indices (emotional, physical, functional, social, and global). **Methods:** The review yielded 14 original studies (57% applying cross-sectional designs), analyzing data from a total of 2759 patients. **Findings:** Regarding healthcare professionals as support source corroborating evidence was found for associations between received support and all aspects of QOL, except for social ones. Relationships between support from healthcare personnel and QOL were observed more frequently (67% of analyzed associations), compared to support from families/friends (53% of analyzed associations); corroborating evidence found for the associations between perceived and received support and emotional aspects of QOL). Research investigating perceived social support from unspecified sources corroborated few associations (33% of analyzed associations), referring solely to the global QOL index. **Discussion:** Quantitative and qualitative differences in the associations between support and QOL are observed, depending on the source and type of support.

Couples managing the first days of sequelae following prostatectomy: Support relations with affect and conflict

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Background: Effects of visible and invisible spousal support on affect and relationship conflict were investigated in couples managing the first week after the onset of the male partner's sequelae following radical prostatectomy. Support provided by one partner, but not detected as such by the intended recipient (i.e., invisible support), was expected to be related with more positive affect and less conflicts among partners. **Methods:** Couples (N=179) with prostate-cancer patients provided daily accounts of support interactions, affect, relationship conflicts, and covariates during the first week following the onset of patients' postsurgery sequelae. **Findings:** Results indicated that only visible parts of supportive interactions were related with higher next-day positive affect in both partners. On days with higher invisible support, patients reported less same-day relationship conflicts whereas caregiving partners reported more conflicts. **Discussion:** Temporal imbalances of equity in supportive interaction within couples are discussed as potential explanations for the present findings.

When helping others helps oneself: Providing peer support improves survivorship problems after hematopoietic cell transplant

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Background: We developed an intervention—expressive helping (EH)—targeting survivorship problems among hematopoietic cell transplant survivors. EH included two components: 1) emotionally expressive writing (EW) followed by 2) provision of peer support (PS) (sharing

transplant experiences, advice, and encouragement through written narratives). EH was compared to neutral writing (NW), EW (without PS), and PS (without EW) in a randomized controlled trial. **Methods:** 264 survivors completed baseline measures, four structured writing exercises (with instructions depending on randomization), and post-intervention measures including validated measures of distress, self-reported physical symptoms, and health-related quality of life (HRQOL). **Findings:** Among survivors with moderate/severe survivorship problems, EH improved distress (compared to NW and PS; $p < .05$), physical symptoms (compared to NW, PS, and EW; $p < .002$), and HRQOL (compared to NW; $p = .02$). **Discussion:** Providing peer support through writing benefits transplant survivors with moderate/severe survivorship problems, but only if they have first worked through their experience with EW.

Health Behaviors and Emotions

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Aims: 1. Provide different perspectives and methodological approaches for studying emotions in health behavior. 2. Raise awareness of interdependency between emotions and health behaviors. 3. Illustrate the role of health behaviors for emotional well-being. 4. Show how emotions can be manipulated to achieve health behavior change. **Rationale:** This year's conference is focusing on well-being and quality of life; for both, emotions and health behavior play a central role. Changing health behavior influences emotional well-being and changes of emotional well-being can improve health behavior. **Summary:** The goal of this symposium is to achieve a better understanding of the role of emotions for health behavior. The first two presentations will focus on the influence of emotion regulation strategies on health behavior. The following studies will highlight the influences of health behavior on emotional well-being in a longitudinal design. The last study examines the effectiveness of emotional appeals to change health behavior.

The role of physical activity and eating behavior in emotion regulation and emotional well-being during the first year at university

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Purpose: Physical activity and balanced eating play a central role in emotion regulation. Importantly, during stressful times, such as examination periods, adherence to health behaviors declines. This longitudinal study investigates the relation between health behaviors and emotion regulation during times of high and low stress. **Methods:** Over 8 months, eating behavior, physical activity, daily affect and experienced stress were assessed 61 times via an online survey in a group of 320 first year university students. **Results:** Multilevel analyses showed that students experienced improved affect on days with higher physical activity and more balanced nutrition ($p < .05$). Healthier nutrition and lower physical activity also predicted better achievement of learning goals ($p < .05$); multilevel mediation analyses suggest that this relation is mediated by positive affect ($p < .05$). **Conclusion:** These results emphasize the relevance of physical activity and balanced eating for emotional well-being and emotion regulation, which, in turn, is related to better learning performance.

Changes in attitudes towards alcohol intake following exposure to emotional appeals: An investigation at the implicit level

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Background: Relatively little is known about how emotional appeals relate to changes in implicit attitudes. In the present study, the effectiveness of three emotional appeals in changing implicit attitudes towards alcohol intake was investigated. **Methods:** Sixty-two undergraduate students provided baseline data on alcohol intake and completed an Implicit Attitude Test (IAT). One week later, they were randomly exposed to either a disgust appeal (n=18), a fear appeal (n=22) or a humor appeal (n=22). Immediately after exposure, their implicit attitudes towards alcohol intake were assessed again. **Findings:** There was an effect of time and of condition. Follow-up analyses showed that those in the fear appeal condition had significantly more negative associations with alcohol at follow-up than at baseline, $t=2.54$, $p=.02$. No changes in implicit attitudes towards alcohol intake were found in the disgust and humor condition. **Discussion:** Fear appeals are able to influence implicit attitudes towards alcohol intake in undergraduate students.

Sedentary behavior and risk of future depression and cognitive decline in the English Longitudinal Study of Ageing

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Modern day lifestyles are characterized by large amounts of prolonged sedentary activities, which may pose a risk to health in its own right although little is known about the effects on mental health. We analyzed data from 4880 initially depression-free men and women (aged 64.7 ± 8.9 yrs at baseline) from the English Longitudinal Study of Ageing, a prospective study of community dwelling older adults. Participants viewing TV ≥ 6 hrs/d had increased risk of depressive symptoms (CES-D ≥ 4) at 2 years follow-up (odds ratio =1.50, 95% CI, 1.10 – 2.04) in comparison to <2 hrs/d TV, although use of the internet was protective (0.75, 0.63 – 0.90) after adjustment for multiple covariates including physical activity. A similar pattern of results was observed for cognitive function. In summary, the effects of sedentary behavior on mental health are context specific and it is the passive nature of the activity that appears to be most harmful.

Eating behavior and emotion regulation in emotional eaters

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Purpose: Emotional eaters increase high-caloric food consumption in highly emotional states to reduce their level of stress. Changes of eating behavior under emotional conditions can result in long term weight concerns. The purpose of this study was to determine whether emotional eaters show difficulties in emotion regulation and emotional expression compared to others. **Methods:** 120 individuals completed a set of questionnaires on emotional eating, general eating behaviour, emotion regulation and emotional expression. **Results:** Emotional eaters showed more maladaptive emotion regulation strategies with higher levels of avoidance, suppression and

rumination ($p < 0.01$) and less emotional expression of positive emotions ($p < 0.05$). There was no difference in emotional expression of negative emotions between emotional eaters and others.

Conclusion: Changes of eating behavior under emotional conditions might be influenced by general difficulties in emotion regulation and emotional expression.

Emotion regulation, stress and eating behaviour

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Background: Eating behaviour is influenced by many factors including stress and emotion regulation styles (ERs). This study assessed ERs, stress and eating behaviour in a cohort of public sector workers. **Method:** 400 public sector workers completed measures of emotion regulation (ERQ), stress (JCQ, hourly VAS, DASS-21, Daily Hassles Scale) and food intake (7-day weighed-intake food-diary). **Results:** ERs 'appraisal' was associated with significantly lower hourly stress ratings ($r = -.169, p < .05$), hassles ($r = -.142, p < .05$), snack intake ($r = -.142, p < .05$) and higher control ($r = .141, p < .05$) than 'suppressors' who consumed significantly higher calories and stress ratings ($r = .142, p < .05$; $r = .236, p < .001$). Stressor type revealed environmental and physical stressors to be associated with increased sugar intake ($r = .136, p < .05$) and work-related stressors associated with reduced fat intake ($r = -.214, p < .01$). **Discussion:** Positive ERs (appraisal) are associated with lower stress and healthier food choices than suppressors. Stressor type and ERs appears key to understanding unhealthy eating behaviours and risk of weight-gain.

Occupational stress and burnout: Antecedents and consequences (Session A)

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Aims. This symposium focuses on job burnout and its associations with different psychosocial job characteristics, individual variables, physical health and work related variables. **Rationale.** An accumulated evidence supports the proposition that burnout at work can be regarded as a major occupational health problem and a cause for concern for health-care policy-makers. Summary and timetable. The symposium starts with a presentation by van der Doef who will present data showing that lack of facilitation of various personal goals is differentially related to the burnout dimensions. Wilczek-Ruzyczka will discuss data evaluating the mediator role of burnout between effort-reward dimensions and insomnia. Truchot will present data showing that the relationship between workload and patients mistreatment is mediated by burnout. Basinka will describe data showing significant associations between organizational demands and burnout, and between lack of rewards and disengagement. Maes will discuss the theoretical and methodological issues raised by the four presentations.

Burnout and lack of personal goal facilitation through work

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Background: Personal goal facilitation through work refers to the extent to which one's job facilitates attainment of personal goals and has been associated with employee well-being. The

current study examines whether lack of facilitation on various goal domains is differentially related to the three burnout dimensions. Furthermore, it is examined whether goal importance moderates these associations. **Methods:** Survey completed by 177 employees in various occupations. **Findings:** Strongest correlates of Exhaustion are low facilitation on Health and Autonomy goals. Cynicism is mainly associated with low facilitation of goals regarding Development, Autonomy, and Respect, whereas Inefficacy is related to low facilitation of Respect goals. Facilitation of Social Support, Structure, and Financial goals shows low associations with burnout. Limited support for moderating effects of goal importance is found. **Discussion:** Lack of facilitation of personal goals is associated with burnout, showing a differential pattern across goal domains and burnout dimensions.

Good sleep and exhausting work – efforts, burnout and insomnia in nursing profession

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Background: Prolonged shifts are weariness for nurses and night shifts leads to dysregulation of circadian rhythm. Rewards may protect against negative consequents at work. The aim of the study was to assess the relationship between occupational efforts, rewards and burnout on sleep difficulties among nurses. **Methods.** 247 nurses working on the 12-hour day-night shifts filled out following questionnaires: Effort Rewards Imbalance scale, Maslach Burnout Inventory and Athens Insomnia Scale. **Results:** Insomnia was explained by exhaustion, efforts and job insecurity ($R^2 = .26$). Indirect effects of exhaustion on the relationship between effort and sleep difficulties, job insecurity, and insomnia were observed. Esteem and job promotion were not related to burnout and sleep difficulties. **Conclusion:** The results have confirmed that exhaustion is a key component of burnout related to sleep difficulties in nurses. This is consist with the view about bidirectional relationship between exhaustion and insomnia.

Elder abuse in retirement homes: The influence of workload, burnout, and emotional labor

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Background: Although elder mistreatment is recognized as a growing problem, little is known about the prevalence and causes of abuse toward the elderly in retirement homes. Based on the conservation of resources theory, we hypothesized that the relationship between workload and abuse toward the elderly among nurses and nurse aides is mediated by burnout and emotional labor. **Method:** French nurses and nurse aides ($n= 502$) working in retirement homes completed a questionnaire designed to measure the study variables: abuse scale (specially designed and validated for this study), workload, burnout, and emotional labor. **Findings and Discussion:** A mediation model that assumed that burnout and emotional labor will mediate the relationship between workload and abuse was tested through structural equation modeling. The results support our hypothesis. Our discussion considers the importance of promoting a safe organizational culture to prevent elder abuse.

Police stress: The role of professional and organizational demands on burnout

Beata A. Basinska¹

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Background: The aim of the study was to evaluate Job Demands Resources model in hazardous professions. Previous studies have shown that organizational obstacles are more aggravating than professional tasks. **Methods:** 403 police officers took part in the study. Professional requirements were assessed by a three-item scale (traumatic events, shift work, environmental demands). Organizational demands and resources (recognition and job promotion) were measured by Effort – Reward Imbalance Questionnaire (Siegrist et al., 2004). Burnout was evaluated by means of the Oldenburg Burnout Inventory (Demerouti et al., 2010). **Results:** Negative relationship between organizational demands and burnout and the relationship between lack of rewards and disengagement were observed. Organizational demands, not professional tasks, intensified exhaustion and disengagement. Lack of resources were related to disengagement. This model was fitted to data ($\chi^2/df = 1.998$, RMSEA = .049, 90CI=.040-.058). **Conclusion:** The improvement of organizational and managerial practices may be the key to the protection of police officers against professional burnout.

Occupational stress and burnout: Antecedents and consequences (Session B). Some European longitudinal studies

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Aims: In several European countries, occupational stress and burnout are legitimate bases for a compensation claim and represent two major reasons for sickness absences and work disability. Longitudinal research designs may permit stronger conclusions concerning the causal relations among the study constructs than cross-sectional designs do. **Rationale:** We believe it is timely to present a symposium that collect studies whose research questions concern changes or cross lagged associations among occupational stress, burnout individual and organizational health variables. **Summary and timetable:** Rudman will describe data showing that high levels of burnout were longitudinally related to an increase in intention to leave. Taking account two longitudinal studies, Casini will illustrate how occupational stressors could account for the gender absenteeism gap. Pisanti will present a study that analyzed how changes in psychosocial job characteristics are related to burnout. Gustavsson will discuss data evaluating long-term consequences of early career burnout among newly graduated nurses.

A prospective study of nurses' intentions to leave the profession during their five first years of practice in Sweden

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Background: Nursing turnover continues to be a problem for healthcare organizations. Longitudinal research is needed in order to monitor the development of turnover intentions over time.

Methods: A longitudinal study of 1501 newly graduated nurses surveyed yearly during the first five years of practice was conducted to monitor the development of intention to leave the profession and to study the impact of burnout on the intentions to leave. Data were analysed using latent growth curve modelling. **Results:** The longitudinal analysis of change in intention to leave showed that levels increased during the first years of employment. High levels of burnout were related to an increase in intention to leave. After five years every fifth nurse had strong intention of leaving the profession. **Conclusion:** It is important for organizations employing new graduates to pay attention to nurses who show early signs of burnout, and provide a resourceful work environment to prevent turnover.

Women's adverse conditions on the labour market as key factor for the gender absenteeism gap

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Background: Women are regularly found to be more absent from work for medical reasons than men. We wanted to evaluate the relative predictive power of several factors in explaining this difference. **Methods:** A multiple mediation analysis was performed on data from 2 merged Belgian longitudinal studies, BELSTRESS III and SOMSTRESS (N=3821, 1541 men, 21–66 years). Estimated factors were occupational grade, paid working hours per week, job-strain, overcommitment, home-work interference and social support at and outside work. Prospective data concerning duration and frequency of medically certified sickness absence (registered by the organizations) were used as outcomes. **Findings:** Stressful work context was responsible for women's sickness absence higher duration compared with men. Women's sickness absence higher frequency was linked to their positioning on the labour market and in society. **Discussion:** It is necessary to work out preventive public actions in order to favour better working and social conditions for women.

How changes in psychosocial job characteristics are associated with burnout dimensions: A longitudinal analysis

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Background: The aim of the study was to test the Job Demand-Control-Support (JDCS) model and to analyze whether changes in psychosocial job characteristics are related to (changes in) burnout. **Methods:** This two wave study was carried out over a period of 14 months in a sample of 217 Italian nurses. Hierarchical regression analyses were used, controlling for demographic variables, baseline job characteristics and the burnout dimension at Time 1. **Findings:** The Time 1 job characteristics explained 3 to 8% of the variance in the Time 2 burnout dimensions, but no support for the additive or the buffer hypothesis of the JDCS model was found. Changes in job characteristics explained an additional 4 to 18% of variance in the Time 2 burnout dimensions. **Discussion:** These findings suggest that the work environment is subject to changes, and that these changes impact employee burnout. Limitations and implications of the study are discussed.

Consequences of early career burnout among newly graduated nurses. A follow-up study

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Background: The transition from higher education to work life can be stressful for newly graduated nurses. A follow-up study of nurses with early career burnout was performed five years after graduation to evaluate long-term consequences of early career burnout. **Methods** A population-based cohort of newly graduated Swedish nurses (from the LANE-study) was used (N=1155). Burnout was measured by the Oldenburg Burnout Inventory and cases were defined using cut-off values suggested by an IRT analysis. Five years post graduation nurses with previous burnout (during the first three years of practice) were compared to those without. **Findings:** Nearly 15% of the new nurses had experienced burnout during the first three years of practice. At follow-up they reported more problems with disturbed sleep, concentration difficulties and anxiety. **Discussion:** It is necessary to work out preventive and supportive actions in order to make the first professional years less stressful.

Explicit and implicit health-related forces: How self-regulation and social image impact eating behavior

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Aims: The main aim of the symposium is to present experimental and field evidence for two fundamental different, yet complementary views on eating behavior: (1) the explicit/deliberate approach stressing self-regulation as central resource, and (2) the implicit/intuitive approach stressing social images and symbolic consumption as a powerful driving force. **Rationale:** In order to create 'low-threshold' interventions which are applicable in natural contexts, we need knowledge about intuitive and deliberate processes underlying health behavior. **Summary & timetable:** The current symposium gives an overview of recent research focusing on both approaches. The first presentation will give an overview how children and adolescents themselves evaluate different types of interventions. The second and third presentations will present field and experimental evidence for the implicit/intuitive social image approach. The fourth and fifth presentation will demonstrate also field and experimental evidence for the impact of the explicit/deliberate self-regulation approach.

Young people's perceptions of overweight prevention policies and programs: A preference for autonomy-supportive approaches

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Background: The accelerating overweight epidemic among young people requires effective prevention responses. This study assessed young people's views of classic and promising

interventions. **Methods:** A cross-sectional school survey was conducted in The Netherlands, Poland, Portugal and the UK. Participants were 2,764 young people (age $M=13.2$, $SD=1.92$, range=10-17; 49.1% girls) who evaluated 10 overweight prevention interventions (e.g., “It is important that parents talk with their children about the importance of healthy eating”; “The price of snacks and soft drinks should be increased”). Interventions encouraged healthy eating (5 items; $\alpha=.84$) or discouraged unhealthy eating (5 items; $\alpha=.84$). **Findings:** Analysis of variance showed that young people evaluate encouraging interventions significantly more positively than discouraging interventions ($M=3.6$ vs. $M=2.8$), $F(1, 2618)= 20.12$, $p<.001$. Evaluations were significantly moderated by country, age and self-perceived autonomy. **Discussion:** Young people’s evaluations of overweight prevention interventions suggest a preference for approaches that encourage healthy eating and are autonomy supportive.

Can we eat popularity? Perceived eating behavior of peers and eating behavior of children

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Background: In the present study we tested whether the eating behavior children ascribe to their friends or popular classmates is related to their own consumption behavior. Hence, the assumption of symbolic consumption of social status was tested within a classroom setting ($N = 70$). **Methods:** Each child nominated twelve classmates and rated their weekly food consumption (84 ratings) and their own intake. **Findings:** The children believed that popular peers and friends eat more healthily than unpopular or unlikeable peers, all $F(1,69) < 5.6$, $p < .05$. Importantly, the more children ascribed an unhealthy eating behavior to popular peers or their friends, the less they preferred healthy foods and the less often they ate healthily, all $\beta > -.38$, $p < .008$. **Discussion:** The results indicate a symbolic consumption effect. Children use food choices for sending out messages about their own image and for attaining peer approval.

Social images of food: We are what others eat

Britta Renner¹, Diana Tăut, Adriana Baban, Harald Schupp

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Background: Imagine Lady Gaga happily eating a hamburger. Since she is a popular celebrity, her social image reflects on the food she is eating. According to the assumption that food is a way to acquire a positive social image, interventions were developed and their impact on spontaneous intake behavior was tested. **Methods:** The three interventions comprised an explicit (healthy eater), an implicit positive (popular peer) and an implicit negative (unpopular peer) social image approach. Within each intervention, children were randomized to either a control, a healthy or unhealthy eating condition. **Findings:** The valence of the social image impacted food intake significantly. Importantly, inducing an image of a popular peer eating unhealthy induced an ‘indulge’ effect (84% started to snack). Conversely, inducing an image of a popular peer eating healthy had the opposite effect (30% started to snack). **Discussion:** Healthy eating behavior can be facilitated effectively through implicit non-health related interventions.

Self-regulation strategies can help to counteract unhealthy snacking habits

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Background: Reducing the intake of unhealthy snack foods is difficult, because snacking behavior is largely habitual, meaning that snacking is induced automatically. We examined whether applying self-regulatory strategies can counteract this negative influence of habits in the relation to snacking. **Methods:** A cross-sectional survey among 11,392 adolescents aged 10 to 17 from nine European countries was conducted. The adolescents completed questions about habits (self-reported habit index), self-regulation strategies (i.e., strategies addressing the temptation directly, strategies addressing the meaning of the temptation, and strategies addressing the goal directly, cf. TESQ-E), and daily unhealthy snack intake. **Findings:** Both habits and use of self-regulation strategies were independently, but in opposing directions, related to intake of unhealthy snack foods. Strong snacking habits were associated with higher consumption, but this effect could be attenuated by use of self-regulation strategies. **Discussion:** The results suggest that teaching self-regulation strategies may help adolescents to counteract unhealthy snacking habits.

The impact of emotions and emotion regulation on ad libitum food intake

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Background: Given the inconsistency in research linking negative emotions and food intake, we investigated whether distressed participants using maladaptive emotion regulation strategies (ERS) are more likely to start eating than those using adaptive strategies. **Methods:** In two experiments (Study 1: N = 165; Study 2: N = 74) negative emotions were induced either by watching fear-inducing movies (Study 1), or by exposing participants to social stress (Study 2). We manipulated ERS (suppression, reappraisal or no instruction) and weighted the amounts of cookies and chips eaten during the studies. **Findings:** Chi squares consistently showed that high suppressors were more likely to start eating ($ps < .05$) compared to reappraisers (Study 1) or low suppressors (Study 2). Also, ANOVAs revealed that they ate slightly more compared to the other groups. **Discussion:** The investigation of individual differences in ERS is a promising research area in explaining the relationship between distress and eating.

Theory-guided behavior change interventions to improve physical activity levels

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Aims: This symposium assembles innovative research examples on the effectiveness of behavior change techniques such as anticipated affect, role modeling, review of past success, self-monitoring, and goal conflict resolution in interventions to improve physical activity (PA). **Rationale:** PA can enhance well-being, but adopting or maintaining an active lifestyle is difficult. To cumulate

evidence for the design of PA interventions, this symposium discusses techniques to enhance PA as well as barriers to do so. **Summary:** Randomized-controlled trials and reviews of PA behavior change will be presented. Mark Conner investigates how prompting anticipated regret may affect PA intentions and attitudes. Lisa Warner prompts affect as well as mastery and vicarious experience as sources of self-efficacy. Falko Sniehotta presents goal conflict mechanisms. Thomas Webb presents meta-analytic results on the effectiveness of self-monitoring in PA.

Affective attitudes, anticipated affect and physical activity

Mark Conner¹

¹University of Leeds, United Kingdom

Background: Physical activity reviews indicate importance of affective reactions. Two types are distinguished: affective attitudes, anticipated affect. Intervention studies targeting the different types of affect as way to change physical activity are presented. **Methods:** In study 1 students read no message or messages targeting affective attitudes or cognitive attitudes and self-reported physical activity levels 3 week later. In study 2 students completed questionnaires containing no anticipated regret questions or regret questions appearing before or after intention questions. Sports center use was assessed objectively over the next months. **Findings:** In study 1 the affective attitude message produced greater increases in physical activity compared to the other two conditions. In study 2 completion of anticipated regret questions before intention questions produced greater use of the sports center compared to the other two conditions. **Discussion:** The findings point to the value of targeting different types of affective reactions in increasing physical activity levels.

Sources of self-efficacy as intervention techniques for physical exercise in older adults

Lisa M. Warner¹, Julia K. Wolff, Susanne Wurm, Jochen P. Ziegelmann, Ralf Schwarzer, Clemens Tesch Römer

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Background: Most interventions to enhance exercise self-efficacy and exercise rely on persuasion, although social-cognitive theory proposes further sources of self-efficacy. This randomized-controlled trial prompted affective states, and mastery experience as well as vicarious experience as sources of self-efficacy to enhance exercise in older adults. **Method:** A face-to-face intervention group (n=131) was compared to a waiting list control group (n=76) with self-report data at baseline, 2 and 6 weeks follow-up. **Findings:** Analyses of variance indicate significant time-group effects in mastery as well as vicarious experience and exercise. An indirect effect was found from treatment condition to Time 3 exercise via Time 2 vicarious experience (indirect effect=.03, p=.03). **Discussion:** The intervention affected the sources mastery and vicarious experience, but not affective states. Incorporating vicarious experience into an exercise intervention for older adults may counteract the loss of role models for exercise in old age and increase exercise.

Physical activity Type 2 Diabetes: The role of goal facilitation and goal conflict

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Background: Compliance to physical activity recommendations among patients with Type 2 diabetes (T2DM) is poor. Theory-based studies have explored social cognitions and self-regulatory processes towards physical activity but ignored other competing goals which may help or hinder activity. **Methods:** N=965 community-dwelling adults with T2DM in Scotland were sent a postal questionnaire containing demographic and clinical variables, an International Physical Activity Questionnaire, Health Action Process Approach Measures and a goal conflict/facilitation scale; n=426 questionnaires were completed (44.1% response). **Findings:** Hierarchical regression analyses of IPAQ measures on demographic, clinical and HAPA measures show that the number of co-morbidities and action control significantly predict physical activity. When added to the equation, goal facilitation, but not goal conflict, becomes the strongest predictor, mediating the effects of action control. **Discussion:** Understanding how other relevant goals facilitate physical activity improves understanding beyond behaviour related motivational and self-regulatory variables. Implications for theory and interventions are discussed.

Does prompting self-monitoring of physical activity engender behaviour change? A meta-analysis of the experimental evidence

Thomas L. Webb¹, Benjamin Harkin, Paschal Sheeran, Mark Conner, Andrew Prestwich, Ian Kellar, Betty Chang, Yael Benn

¹University of Sheffield, United Kingdom

Background: The present review investigated (a) how effective interventions are in promoting self-monitoring of goal progress and (b) whether changes in the frequency of self-monitoring engender behaviour change. **Methods:** We identified 21 experimental studies (N = 1,918) that measured intervention effects on the frequency of self-monitoring and physical activity. **Findings:** Studies that compared the intervention with a control condition who were not asked to self-monitor found large differences in behaviour (k = 8, d+ = 1.22), while studies that compared the intervention with a control condition who were also asked to self-monitor tended to find small differences in behaviour (k = 13, d+ = 0.23). Weighted regression revealed that differences in the frequency of self-monitoring significantly predicted differences in behaviour (beta = 0.43). **Discussion:** Interventions designed to prompt self-monitoring of physical activity have a significant impact on behaviour change that is associated with changes in the frequency of self-monitoring.

Organizational culture, burnout and quality of care: The ORCAB project

Florina Spanu¹

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Aims: The symposium aims at: 1. Discussing how organizational culture (OC), burnout and quality of care (QoC) are interrelated. 2. Discussing the role of organizational context in shaping

health professionals' (HPs) work strain. 3. Discussing the role of interpersonal support in coping with burnout among HPs. 4. Arguing for an organizational-led approach in designing interventions to reduce burnout and improve QoC. **Rationale:** The symposium invites both academics and practitioners to reflect on how the quality of HPs professional life impacts both on their well-being and their patients' care. **Summary:** Despite the resources spent in preventing burnout across Europe, the incidence of burnout among physicians keeps increasing. This symposium highlights the implications of hospitals' cultural patterns on health professionals' burnout and engagement, and on suboptimal care. We present data from the ORCAB Project – a FP7 multicentered study examining the role of OC and burnout in relation to patients' safety and care.

Highlighting 'red flags' in the work experiences of junior doctors in Ireland

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Background: Hospital doctors face significant challenges in the current healthcare environment, working with staff shortages and cutbacks to healthcare expenditure, alongside increased public expectations. This paper analyses challenges faced by junior hospital doctors, providing insight into the experiences of these frontline staff in economically challenged services. **Methods:** Semi-structured in-depth interviews were conducted with 20 doctors from urban Irish hospitals. **Findings:** Dominant themes included: 1) Unrealistic Workload, 2) Coping but discontent and 3) Immunity/Detachment. Respondents ascribed little importance to any impact current working conditions may have on their own health. They felt their roles were underappreciated and undervalued by policy makers and hospital management. They were concerned about the lack of time and opportunity for training. **Discussion:** This study highlighted several 'red flags', which need to be addressed in order to increase retention and sustain a motivated junior doctor workforce.

Teamwork as a mediator between job demands and job burnout/job engagement among medical residents

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Background: Medical residents report high levels of burnout and low engagement, associated with high workload. We hypothesized that teamwork will mitigate the effect of job demands resulting in residents experiencing less burnout and more engagement. **Methods:** A quantitative survey was conducted among residents in 5 countries: Greece, Bulgaria, Romania, Turkey and FYROM (N=550). Self-reported data on job demands, teamwork, job burnout/engagement and affectivity were collected. Mediation analyses, controlling for affectivity, were conducted to assess whether teamwork mediates the relationship between job demands and job burnout/engagement. **Findings:** Teamwork fully mediated, only, the effect of emotional demands on dedication. Partial mediation of teamwork was found between physical, emotional, cognitive demands and depersonalization; emotional, cognitive demands and emotional exhaustion; physical, cognitive, organizational demands and dedication; all types of job demands and vigor. **Discussion:** Enhancing teamwork can decrease the burden of job demands on burnout and increase the engagement of residents.

Hospital culture and quality of care: the mediation role of job demands and work engagement

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Background: The present study's main goal is to understand the impact of hospitals' organizational culture on the quality of care delivered to patients. Moreover, this study examines the mediating role of job demands and work engagement on this relationship. **Methods:** Participants in this study (n=190) were doctors and nurses from one large teaching hospital in Portugal, who answered a questionnaire. **Findings:** We found a double mediation between perceived hospital culture and quality of care through job demands and work engagement. This double mediation was significant considering the cultures of clan, adhocracy and market, but not considering the culture of hierarchy. **Discussion:** Fostering the best possible care for patients as well as professionals' well-being are important goals for health psychology. Our findings suggest that those goals are tightly connected to the understanding of organizational variables that should be taken into consideration both in research and practice domains.

Patient safety culture and suboptimal care. A multi-level analysis

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Background: We investigate the impact of unit-level patient safety culture (PSC) on suboptimal care (SoC) in health professionals (HPs). **Methods:** A survey was conducted among 432 Romanian HPs from 28 medical units. PSC was measured using Hospital Survey on PSC. A self-reported measure of SoC was used as dependent variable. Data were analyzed using multilevel analysis in HLM. Age, sex, department tenure and negative affectivity (NA) were entered at the individual level. PSC data were aggregated at the unit level after testing for evidence of within unit agreement and between units variability. **Findings:** At the individual level, NA was found to be associated with high ratings of SoC. Data showed that not all the dimensions of PSC are consistently associated with SoC. **Discussion:** Data suggest that self-rated measurements of care provided to patients are influenced by unit-level, cultural factors, but also by individual characteristics, such as NA.

Longitudinal designs in health psychology

Gertraud Stadler¹

¹Columbia University, United States

This symposium will address common methodological challenges using longitudinal designs in health psychology, including sources of variance, data analysis approaches including mediation, and power. Longitudinal designs with multiple time points have become more popular in health psychology, fueled by the rise of eHealth/mHealth studies. Gertraud Stadler will describe

approaches to distinguishing sources of variance in couples data and describe reliability of change measures. Megan Robbins will present health research with the ecologically activated recorder, and how she and her colleagues analyze their data. J-P Laurenceau will discuss mediation analysis in longitudinal designs with a focus on within-person mediation analysis. Niall Bolger will explain sources influencing power in longitudinal designs and show how to conduct such power analyses using standard software. Blair Johnson will discuss how the use of advanced longitudinal designs could shape theory and research in health psychology.

A good starting point: Sources of variance in dyadic longitudinal data and reliability of change

Gertraud Stadler¹, Niall Bolger, Sibylle Ochsner, Urte Scholz, Rainer Hornung, Nina Knoll, Patrick E. Shrout

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Background: A good starting point for data exploration is to understand sources of variance and the reliability of the measures used in these studies. **Methods:** Smokers and their nonsmoking partners (N = 99 couples) were followed over 32 days around a quit attempt. We describe sources of variance in positive and negative affect and the reliability to detect within-person change processes. **Findings:** Variability between persons accounted for about a quarter of the variance (positive affect: 25%; negative affect: 23%). Person-by-time variability accounted for nearly as much variance (22%) for positive affect but less for negative affect (14%). The measures showed outstanding between-person reliability (RKF > .90) and acceptable reliability of change (RC > .70). **Discussion:** Describing sources of variance and the reliability of change in the measures provide a better understanding of longitudinal data and lay the ground for further analyses and designing adequately powered studies.

The little things in life: Using momentary naturalistic observation to capture everyday coping

Megan L. Robbins¹, Matthias R. Mehl, Ashley E. Mason

¹University of California, Riverside, United States

Background: This talk discusses the potential of a naturalistic longitudinal observation method, the Electronically Activated Recorder (EAR), for studying health-relevant social processes. It discusses findings from three EAR studies that highlight the psychological implications of behaviors that escape self-reports: sighing, swearing, and laughing. **Methods:** Thirteen rheumatoid arthritis patients, 21 breast cancer patients, and 79 undergraduates wore the EAR, a portable audio-recorder that records snippets of ambient sounds, yielding acoustic logs of their days as they naturally unfolded. **Findings:** Studies 1 and 2 used between-person analyses to show that sighing can be a strong marker of depression, and that swearing may undermine emotional support and increase risk for depression, respectively. Study 3 employed logistic multilevel modeling in a within-person design to examine the social context in which laughter occurs. **Discussion:** These studies underscore the potential for the EAR to reveal the importance of expressive behaviors in the coping context.

Illustrations of within-person mediation analysis using intensive longitudinal data

Jean-Philippe Laurenceau¹

¹University of Delaware, United States

Background. This talk presents a type of mediation especially suited for intensive longitudinal data: mediation at the within-subject level (Bolger & Laurenceau, 2013). **Method.** We use data from two intensive longitudinal studies of couples coping with cancer. In Study 1, 44 women with breast cancer and their partners completed an online diary for 10 consecutive evenings. In Study 2, 57 metastatic breast cancer patients and their partners completed electronic assessments 6 times a day for 14 days. **Findings.** In Study 1, the occurrence of daily relationship events influenced intimacy which, in turn, predicted lower fear of recurrence. Study 2 suggests that pain may wear on couples' relationships through its adverse effects on patients' mood. **Discussion.** Because participants are assessed repeatedly in an intensive longitudinal study, each participant can have his/her own mediation effect. This permits to estimate an average within-person mediated effect as well as between-person heterogeneity around that average.

Power analysis for longitudinal designs

Niall Bolger¹

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Background: When health researchers take on longitudinal designs they should have an eye on adequately powering the main research questions to direct their use of resources. This presentation will show how to conduct simulation-based power analyses for prototypical questions in intensive longitudinal designs (see also Bolger & Laurenceau, 2013). **Methods:** We conducted several power analyses using Monte Carlo simulation in Mplus for between-person and within-person associations and within-person mediation, based on pilot work using intensive longitudinal designs. **Findings:** Power increases result from adding more persons or more time points. But adding persons to a study can be more useful to reach adequate power than adding additional time points for each person, as others have pointed out before (Snijders & Bosker, 1999). **Discussion:** Power analyses for longitudinal designs can be conducted with widely available software and give health researchers a better chance at conducting meaningful longitudinal studies.

Understanding the interaction between person and environment to explain (and change) eating behavior

Marijn Stok¹

¹Utrecht University, Netherlands

Aims: The symposium will (1) enhance comprehension of the ways in which environment and individual interact in bringing about eating behavior; (2) show that such interactions can result in unhealthy eating behavior; (3) provide evidence that this dialectic between environment and person also provides opportunities for interventions; and (4) distinguish between different age groups. **Rationale:** Unhealthy eating behavior and resulting obesity have large consequences for well-being and quality of life. **Summary & timetable:** The current symposium gives an overview of recent research focusing on this interaction. The first two presentations show how individual

eating and dieting are influenced by others in the social environment. The third and fourth presentations demonstrate how the physical environment can influence eating behavior, and how self-regulatory competence can play a protective role. The final presentation will demonstrate how the food environment can be used to help children develop better eating behavior.

Who diets? Most people and especially those who worry about food

Denise de Ridder¹, Marieke Adriaanse, Catharine Evers, Aukje Verhoeven

¹Utrecht University, Netherlands

Background: To investigate the prevalence of dieting in the community and to determine whether genuine concerns (overweight, unhealthy eating habits) or unfocused food worries predict dieting. **Methods:** A representative community sample (n=1004) participated in a survey on dieting, food worries (Rozin scale), weight status, and eating habits (1-week diary). **Findings:** 65% of the sample met the criteria for dieting, regardless gender, age, or education. A regression analysis demonstrated that food worries were the sole important predictor ($\beta=.39$, $p<.001$) of dieting after controlling for weight status and eating habits. **Discussion:** In view of research demonstrating that dieting is generally not effective in controlling food intake, the high and widespread prevalence of dieting is alarming. Moreover, our finding that dieting status is not predicted by actual food intake or weight status but rather by concerns about food has serious implications for health promotion emphasizing the importance of restricted food intake.

Eater stereotypes: I might not eat as healthy as I should, but others are worse

Gudrun Sproesser¹, Verena Klusmann, Harald Schupp, Britta Renner

¹University of Konstanz, Germany

Background: Eating healthy is a widely accepted social norm. However, people often do not live up to this standard. This negative self-view might be partly compensated by negative stereotypes about the 'average eater'. Therefore, we examined the relation between eater stereotypes, habitual eating and health. **Methods:** The data (N = 753) were collected in the framework of the Konstanz Life Study, a longitudinal public health screening. **Findings:** On average, the profile of an average eater was rated more negatively than the self, indicating stereotypical beliefs. The more pronounced the stereotypical beliefs were, the more people believed that their eating behavior is adjusted and well-balanced and the more positive they rated their health status. **Discussion:** Actual and illusory health behavior might be two roadways to subjective health. Whether illusory health behavior might be detrimental or a promising avenue for health interventions will be discussed.

Exposure to food advertising on television, self-regulation and unhealthy eating: An exploration within 3 European countries

Laura König¹, Diana Täut, Hanna Ollila, Helge Giese, Rita Juhász, Adriana Baban, Pilvikki Absetz, Harald Schupp, Britta Renner

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Background: We examined whether children's exposure to food advertising is associated with higher consumption of fast food and candies. Specifically, we tested whether self-regulation

capacity might buffer the impact of advertising and whether the relation varies across countries differing in their advertising and health 'culture'. **Methods:** 2.841 children and adolescents from Finland, Germany, and Romania filled in a questionnaire assessing their food consumption, self-regulation, BMI, and exposure to food advertising on TV. **Findings:** Path models showed that greater exposure to food advertising was associated with an increased consumption of fast food and candies. Importantly, the impact was mediated by self-regulation and marked differences between countries emerged. Within Romania, a greater impact of food advertising and a weaker impact of self-regulation on food consumption and BMI occurred. **Discussion:** Exposure to fast food advertising is associated with an increased consumption. Interaction between individual and 'societal' resources will be discussed.

Taming the power of food: Self-regulatory competence moderates external food cues' influence on adolescent eating

Marijn Stok¹, Denise de Ridder, Emely de Vet, Maria Chu, John de Wit

¹Utrecht University, Netherlands

Background: Obesity rates among youngsters are steadily increasing. The obesogenic environment, in which tempting, unhealthy foods are always easily accessible, is thought to be one reason. We investigated if self-regulatory competence (SRC) could shield adolescents from these temptations. **Methods:** 10.000 adolescents from nine European countries completed a questionnaire including Power of Food (PoF, a measure of external food cues' influence on eating), TESQ-E (a measure of SRC for eating), and fruit and snack consumption. **Findings:** Regression analyses showed that PoF and SRC interacted significantly. Simple slopes analyses indicated that higher SRC shielded adolescents from the influence of external food cues in the environment: these only significantly predicted eating behavior (more snacks and fewer fruits) when SRC was low, but not when SRC was high. **Discussion:** The current results indicate that SRC lowers the influence of external food cues on eating. Improving adolescents' SRC constitutes a promising avenue for obesity prevention.

Exposure to food temptation alters children's attention to healthy food

Aiste Grubliauskiene¹, Siegfried Dewitte, Luk Warlop

¹KU Leuven, Belgium

Background: The question we address is whether the exposure to tempting food in situations gently inviting not to consume would decrease relative attention to a similar temptation subsequently. **Methods:** In the first phase, children constructed a flower either from candy, from Lego® bricks or from Lego® bricks while a chocolate photo was present. In the second phase, children had to select one option from pairs of healthy and unhealthy foods on the screen, and gaze time at food items served as the main dependent variable. **Findings:** Children who had been exposed to candy or a picture of chocolate subsequently looked longer at a healthy option as compared to children who did not have any candy or photo. Gaze time at unhealthy option was not different across conditions. **Discussion:** Supporting children to deal with food temptation enhances their subsequent relative attention to healthy food.

Gender, media and new health related practices

Irina Todorova¹

¹Health Psychology Research Center, Bulgaria

Aims: The Symposium aims to increase awareness of: local constructions of health practices and activities; the tensions between relevant gendered stereotypes and new gendered constructions, their potential consequences and/or alternatives. **Rationale:** It is important to discuss these issues at this point in time as relatively new phenomena with important consequences for health. **Summary:** The first contribution analyzes Australian websites and discuss how genital cosmetic surgery is presented to healthy women, to normalize it and ultimately pathologizing women's bodies. The second presents interviews given by health professionals in Bulgarian media which maintain gendered stereotypes regarding the HPV vaccine. The third analyzes Romanian internet discussion forums, to illustrate fears about the HPV vaccine, and the associated fears of female promiscuity. The fourth discusses constructions of the 'home dad' in British press, showing a tension between multiple constructions of masculinity and social gender norms. The Discussant will present comments, overarching themes and conclusions.

Selling genital cosmetic surgery to healthy women: A multimodal discourse analysis of Australian surgical websites

Christina Lee¹, Claire Moran

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Background: We examine websites that promote the growing practice of female genital cosmetic surgery. **Methods:** We analysed four Australian websites, using multimodal discourse analysis, a qualitative technique for deconstructing web pages which interweave text, images, colour and other graphical material to create implicit discursive contexts. **Findings:** Three themes emerged: 'pathologising the normal', 'normalising modification' and 'cosmetic surgery is easy.' All were embedded in a neoliberal discourse of individual choice, self-improvement, and bodily objectification, through text and images that medicalised normal women's bodies, normalised surgery to fit a cultural ideal of beauty, and stressed the rhetoric of choice and empowerment, thus creating an ideological justification for cosmetic surgery as something that women both want and deserve. **Discussion:** This analysis exemplifies the ways in which normal women's bodies are commodified, then pathologised, in order to sell unnecessary and potentially harmful procedures to healthy women.

Gendered discourses in Bulgarian media regarding HPV vaccination

Irina Todorova¹

¹Health Psychology Research Center, Sofia, Bulgaria

Background: New preventive technologies offer insight into psychological and cultural landscapes. Our objective is to understand the gendered dimensions of the discourses in the Bulgarian media evoked by the new HPV vaccine. **Methods:** We collected 33 interviews with health care professionals from the media. The texts and visual data were analysed sequentially through

thematic and discourse analysis. **Findings:** We identified the discourses: reproductive health as women's responsibility; boys as protectors of girls; de-sexualization of the vaccine; individualization of a relational (sexual) phenomenon. Vaccination of girls is constructed as benefiting and protecting them, while vaccination of boys is calculated according to cost-benefit balances. The more socially acceptable image of a vaccine against cancer from which "every day a woman dies in the country" is employed and discursively reproduced. **Discussion:** Media publications about the vaccine reflect local meanings of sexuality, gender, stigma of HPV and experiences in the health care system.

To vaccinate or not to vaccinate? Public understandings of HPV vaccination in Romanian discussion forums

Marcela Penta¹, Adriana Baban

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Background: Despite two HPV vaccination programmes, the acceptance rate remained insignificant. In order to inform future communication strategies, this paper aims to explore people's constructions of the HPV vaccine. **Methods:** Sixteen Discussion forums, consisting of 1.875 posts (2008-2011), were analyzed. We performed a thematic analysis with a focus on language, informed by discourse analytic approach. **Findings:** Negative discourses relying on rigid arguments and fear-eliciting messages battled with positive discourses that focused on scientific evidence. While supporters considered the vaccine an important breakthrough, critics described it as extremely risky, as part of a conspiracy, as useless or as a promiscuity promoter. Gendered-dimensions also emerged, as discourses around women's sexual behaviour, responsibility and blame were encountered. Overall, vaccine-related views seem to be linked with perspectives about gender role, society development, medicine and about the national health system in particular. **Discussion:** Health educators should address public's knowledge gaps, misunderstandings and concerns around immunization.

Representations of 'fatherhood' and 'parenting' in the British Press: The case of the 'Home Dad'

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Background: This paper sets out to consider discourses around parenting, specifically fatherhood, in the British press. Despite societal discourses for 'involved fatherhood', researchers have claimed that when it comes to parenting, we consider the role of the mother to be paramount. **Methods:** An in-depth media analysis on the depiction of 'fathers', and 'parenting' in the British Press was undertaken. An initial thematic analysis was performed, which was subject to a further discourse analysis to examine dominant discourses. **Findings:** The findings illuminated tensions between competing masculinities and societal norms. The analysis demonstrated that breadwinning discourses around fatherhood were still evident, and, whilst there was mention of co-parenting, the mother as caregiving parent was the dominant discourse. **Discussion:** As social policy related to parenting changes, reaching an in-depth understanding of contemporary fatherhood and its representations in the British Press are essential in order to challenge current societal constructions of gender norms.

Behaviour change techniques: New directions in coding, analyses and effectiveness

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Complex interventions are widely used to change various health-related behaviors. For the development and evaluation of such interventions it is important to have a general understanding of how effectiveness can be and is achieved. Recent work has been devoted to identifying what behavior change techniques contribute to the effectiveness of complex interventions. It is essential to understand what techniques may explain the intervention effects and via what mechanisms. Important directions are to gain a better understanding of what combinations of BCTs work, what factors can explain the effectiveness of BCTs, the extent to which we really understand the content of a BCT, and what requirements need to be met in order to successfully apply a BCT. The symposium addresses some of these key issues.

How can self-efficacy be increased? Meta-analysis of dietary interventions

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Background: The present review systematically examined the effect of behaviour change techniques (BCTs) on dietary self-efficacy. **Methods:** Fifty-four randomised controlled trials (from MEDLINE, EMBASE, PSYCINFO) tested the effect of interventions on healthy eating and underlying dietary-related self-efficacy. Two reviewers independently coded study quality and intervention content (e.g., BCTs, Abraham & Michie, 2008; mode) in intervention and comparison groups. Analyses tested the association between BCTs and self-efficacy and included sensitivity analyses (e.g., controlling for risk of bias; removing outliers). **Findings:** 'Stress management', Hedges g +0.39 (95% CI 0.26 to 0.53; $p < .0001$; significant across all sensitivity analyses), 'prompt self-monitoring of behaviour', +0.14 (95% CI 0.01 to 0.26; $p = .04$), and 'prompt review of behavioural goals', +0.20 (95% CI 0.004 to 0.39, $p = .045$) significantly increased dietary self-efficacy. **Discussion:** The findings indicate a potential mechanism underlying various BCTs and could help to develop more effective, theory- and evidence-based interventions.

Effective self-regulation techniques to promote mental wellbeing among adolescents

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Background: Adolescents are at high risk for low mental well-being. However, goal related skills may be a protective factor. The aim of this study is to gain insight in self-regulation behavior changes techniques (BCT) that are effective in promoting mental wellbeing among adolescents. **Methods:** 40 interventions targeted at promotion of mental wellbeing were included. Interventions techniques were coded into 9 categories of self-regulation BCTs. Meta-analyses (using mean effect size g) were conducted to identify the effectiveness of BCTs and CART analyses to identify effective combinations of BCT. **Findings:** The overall effect size (ES) of the included

self-regulation interventions was 0.33. Interventions that included a goal setting technique had a significant higher ES (ES= .49) than those without (ES=.26, $p=.03$). The CART analyses are still being performed. **Discussion:** Self-regulation interventions are effective in improving mental wellbeing among adolescents. Specific techniques and combinations are likely to increase effectiveness.

Combinations of techniques that effectively change health behavior: Evidence from meta-analysis

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Background: Many health promoting interventions combine multiple behavior change techniques (BCTs) to maximize effectiveness. We aimed to identify which combinations of BCTs explain intervention success. **Methods:** 122 interventions targeted at physical activity and healthy eating were included, all interventions were coded into 26 BCTs. A CART (Classification and Regression Trees) analysis was performed using the 26 techniques as predictors of treatment. **Findings:** The most successful combinations were: Prompt intention formation with Provide information about behavior-health link (mean effect size, $g=0.46$), and Prompt barrier identification with Set graded tasks ($g=0.37$). Least successful interventions were those using Prompt barrier identification without using Set graded tasks ($g=0.23$) and those not using Prompt review of behavioral goals or Prompt self-monitoring of behavior ($= 0.25$). **Discussion:** Specific combinations of BCTs increase the likelihood of achieving change in health behavior, while other combinations decrease it. CART may provide a viable methodology in meta-analyses.

Reliability of coding of published behaviour change interventions: How can we decide if a technique is effective if we cannot agree what it is?

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Background. While evidence is accumulating about effective behaviour change interventions, we lack adequate methods for reporting the content of interventions in sufficient detail for replication and for aggregation in evidence synthesis. Using behaviour change technique (BCT) methods, we assessed agreement about the content of published intervention descriptions. **Methods.** 6 experts used BCT taxonomy v1 to code 65 published interventions to change preventive, illness management and health professional behaviors. Adjusted Kappa statistics were used to assess reliability of coding each BCT. **Findings.** 26 of 93 BCTs occurred with sufficient frequency to assess reliability; 23 had Kappas $> .60$ and 9 achieved Kappas $> .80$. Social comparison achieved the highest, and Instruction on how to perform the behavior the lowest agreement. **Discussion.** The BCT taxonomy has achieved some agreement about intervention content but requires further improvement. Additionally, work is also needed to report methods and competence of delivery of BC interventions.

To care and to be heard: Multiple perspectives on caregiver distress

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The field of health psychology has already recognized that illness-induced distress is experienced not only by patients but also by their caregivers. Thus, it is important to share what we know about possible contributors to and moderators of caregiver distress. In keeping with the conference's theme, the aim of this symposium is to integrate studies from different cultures, different theoretical perspectives and different methodologies on the subject of caregiver distress. Data from a variety of illnesses –kidney failure, cardiac illness and stroke – will be presented. Putative contributors to caregiver distress– such as provided support, patient recovery confidence, and burden – will be discussed. These issues will be approached from a number of theoretical perspectives including the caregiver identity theory, the attachment theory and the dyadic perspective on coping with illness. We hope this symposium will broaden our understanding of the caregiver experience. Ultimately such understanding will be translated into effective intervention.

Couples' wellbeing before and after kidney transplantation

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Background. Patients' well-being has generally been found to increase after kidney transplantation, but little is known about the wellbeing of their partners and the quality of their relationship during the process of transplantation. **Methods.** 45 couples completed measures of psychological distress and relationship satisfaction before as well as 3, 6 and 12 months after kidney transplantation. Partners also completed a social support provision questionnaire at all assessments. Data was analyzed in MLwiN (multilevel approach). **Findings.** Patients reported more distress than their partners, but distress was highly correlated within couples and decreased in a similar trend in both partners over time. Relationship satisfaction was also found to be highly correlated within couples, but was relatively stable over time. Social support provision from the partner decreased after transplantation. **Discussion.** Overall the results suggest that both members of couples are affected by the illness and respond to the transplantation process as a dyad.

Predicting carer distress within stroke dyads: do patient beliefs matter?

Val Morrison¹, Tom Clarke

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Background. Owing to the non-independence of observations in dyadic research methods that can incorporate the nested structure of a dyad into the analysis are required. We explore longitudinal effects of early post-stroke beliefs on caregiver anxiety and depression using Actor-Partner Interdependence Modelling. **Methods.** 50 patient-caregiver dyads assessed within 2 weeks of discharge, and 8 weeks and 6 months later completed measures of perceived patient (in)dependence, recovery confidence and efficacy, perceived social support from partner, and caregiver anxiety and depression. **Findings.** Significant associations emerged between: 1) caregiver anxiety and

partner recovery confidence; caregiver anxiety and caregiver self-efficacy, 2) caregiver depression and caregiver and partner age; caregiver depression and caregiver self-efficacy. **Discussion.** Whilst hypotheses regarding perceived patient in(dependence) and partner support are unsupported, significant partner effects regarding patient recovery confidence at baseline and 8 weeks was associated with lower caregiver anxiety at 6 months. Findings provide scope for intervention.

Profile of the caregiving career: Do experiences of burden and depression differ among spouses and adult-children?

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Background: Caregiver identity theory posits that the caregiving career begins within the context of an established familial relationship identity between a caregiver and family member with a chronic illness. As the career progresses, individuals incorporate more of the caregiver role into their relationship identity. **Methods:** Using relationship identity to measure phases of the caregiving career, this study investigated whether experiences of burden and depression differed across the caregiving career and between spouse (N=264) and adult-child (N=229) caregivers. **Findings:** Multivariate analyses of variance revealed interactions between caregiver relationship and caregiving phase for burden and depression. Spouses experienced the greatest burden and depression when their relationship identity primarily included the caregiver role. Adult-children, however, experienced the most burden and depression when the familial and caregiver roles equally comprised their relationship identity. **Discussion:** Findings are discussed in terms of the differential needs of spouses and adult-children across the caregiving career.

Burden and depression among cardiac patients' female caregivers: The moderation role of attachment orientation

Noa Vilchinsky¹, Rachel Dekel, Gabriel Liberman, Morris Mosseri

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Background: We explored whether attachment orientations moderate the associations between female caregivers' burden and depression, when coping with partners' first time acute coronary syndrome (ACS). **Methods:** The sample consisted of 111 female caregivers of male patients in Israel. Caregivers completed a measure of attachment orientations during patients' hospitalization (baseline), a burden questionnaire one month later, and a depression scale at baseline and at the six-month follow-up. Structural equation modeling was applied. **Findings:** The association between caregivers' burden and depression at follow-up was moderated by attachment-related anxiety but not avoidant. The higher the scores on the anxiety attachment scale, the stronger the positive association between burden and depression. **Discussion:** Experiencing a partner's ACS seems to set off attachment hyper-activating strategies while making attachment deactivating strategies more difficult to act upon. The findings shed light on the possible dynamics among personality, burden and affect regulation when coping with one's partner's illness.

Promotion of health and health behavior: What is different in older adults?

Susanne Wurm¹, Julia Wolff

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Aims: The potentials of health promotion in older adults are often still underestimated, and the specific needs of this target group are little-known. The symposium points at special relevance of perceptions of aging, illness perceptions, and resources for health in interventions targeting older adults. **Rationale:** In accordance with the theme “well-being, quality of life, and caregiving” factors relevant for interventions to promote older adult’s health will be discussed. **Summary:** The symposium summarizes relevant factors for health in older adults. Morgan et al. point to the importance of perceptions of aging for physical activity and depression. Wurm et al. examine the relevance of illness-perceptions for subsequent health and coping. Afterwards, Hobbs et al. talks about the development of intervention programs for older adults. Finally, Wolff et al. show intervention effects of a RCT to increase physical activity in older adults.

Investigating the relationship between physical activity, ageing perceptions and psychological well-being in older adults

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This study explored the associations between physical activity, ageing perceptions and depression in older adults. Data from the Irish National Survey of Lifestyle Attitudes and Nutrition (N = 4255), the Northern Ireland Health and Wellbeing Survey (N = 1904) and the Irish Longitudinal Study of Ageing (TILDA, N = 6,500) were used. All three included the International Physical Activity Questionnaire and assessed depression. Ageing perceptions were examined in TILDA using the Ageing Perceptions Questionnaire. Participants who were engaged in moderate to high levels of physical activity had a 50-56% reduction in the odds of having elevated depressive symptoms. Participants who had more negative perceptions of ageing were more likely to be in the low physical activity category. Physical activity is associated with depression in older adults. The relationship between ageing perceptions and physical activity suggests that interventions targeting ageing perceptions may be effective in increasing physical activity in this group.

Multiple illness perceptions and adaptive outcomes in older adults

Susanne Wurm¹, Benjamin Schuez, Julia K. Wolff, Lisa M. Warner, Jochen P. Ziegelmann

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Background: Illness perceptions are important predictors of illness outcomes and coping behaviours. Far too little is known about perceptions of multiple illnesses in multimorbidity. We test three competing models of multiple illness perceptions in predicting illness outcomes and coping behaviours: (1) main effects and interaction model, (2) peak model testing effects of the strongest illness perception, (3) averaging model assuming averaged perceptions over multiple illnesses. **Methods:** 309 individuals (65 – 86 years, ≥ 2 diseases) assessed twice, six months apart. Participants filled in Brief Illness Perception Questionnaires on their two most severe illnesses.

Findings: Multiple regression analyses support (1) and (3). Physical functioning was predicted by coherence ($\beta = .12 - .22$), medication adherence by control beliefs ($\beta = .10 - .28$). **Discussion:** Individuals with multiple illnesses seem to hold both distinct and combined illness perceptions. To understand individual responses to multiple illnesses, multiple illness need to be taken into account.

Using innovative co-design methods to develop interventions for people in the retirement transition: LiveWell programme

Nicola Hobbs¹, Ben Heaven, Gemma Teal, Claire Cleland, John Mathers, Falko Sniehotta, Martin White, Paula Moynihan

¹Newcastle University, United Kingdom

Background: The LiveWell programme aims to develop pragmatic and acceptable interventions to improve the health and wellbeing of people in the retirement transition. User involvement through co-design maximises opportunities for acceptable interventions but also requires the integration of multiple epistemologies. **Methods:** Three workshops were conducted using co-design methods. Co-designers were potential intervention-users, deliverers, commissioners and researchers. The workshops involved persona-building and storyboarding with visual activities. Developing ideas, prototyping and integrating the evidence base occurred iteratively. **Findings:** Personalisation through identification of needs/desires and the role of a mentor in identifying resources and goals were key emerging design themes. Integration of ideas was achieved through structured opportunities for Discussion and a diversity of methods. **Discussion:** Co-design methods integrated multiple sources and types of data, delivering empirically sound and evidence-based interventions that were also acceptable and feasible for older adults. These interventions are more likely to produce positive effects on health and wellbeing.

Changing self-perceptions of aging as part of an exercise intervention for older adults

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Background: Recently, a number of studies have pointed to the importance of positive self-perceptions of aging (SPA) for health behavior in older adults. Our randomized-controlled trial aimed at increasing exercise by including an intervention technique to change SPA. **Method:** The RCT included an intervention group with SPA-component (IGSPA; n=101), a control group (CG; n=76), and an intervention group without SPA-component (IG; n=31), with self-report data at baseline, 2 and 6 weeks follow-up. **Findings:** Multilevel modeling indicate significant time*group effects: After the intervention, IGSPA had higher outcome expectancies and more positive SPA than CG and IG; moreover, only for IGSPA, there was a significant relationship between SPA and exercise. **Discussion:** The intervention with SPA-component proved to be more effective in increasing outcome expectancies and SPA than an intervention without SPA-component. Changes in SPA may mediate effects on physical activity later on. Older adults seem to benefit from SPA-components in exercise interventions.

Roundtables (In alphabetical order by first convenor)

Provocations for future directions in health psychology

Kerry Chamberlain¹, Pilvikki Absetz

¹Massey University, New Zealand

This symposium presents a series of six brief commentaries (9 minutes each) from seven speakers who each take up different issues and speak from different positions but are united in an endeavour to raise provoking ideas. Their commentaries offer views and ideas about issues concerning the standing and future of health psychology in order to provoke thought and reflection about the future shape and direction of health psychology. The session procedure will be for all speakers to provide their commentaries in turn, followed by an open session where the audience will be actively engaged to participate with their ideas and questions across all commentaries. The Internet will be utilized to enable further discussion after the session.

Implementation intentions, planning and behaviour change: Proposals for the way forward

Aleksandra Luszczynska¹, Martin Hagger, Ralf Schwarzer, Thomans L. Webb, John B. F de Wit

¹University of Social Sciences and Humanities, Poland

Purpose: This roundtable aims at discussing issues arising in research on implementation intentions and planning interventions and proposing a way forward in the context of health behaviour change research. **Objectives:** Possible problems surrounding implementation intention conceptualisation and practice likely to be discussed include: (1) definition and conceptualization, (2) format and measurement, (3) mediating and moderating mechanisms and processes, (4) design issues, (5) 'best practice' components, (6) ways to develop evidence-based recommendations for effective future interventions and highlight priority areas for future research. **Rationale:** There is a need to develop consensus in the face of translating the different implementation intention and planning components of experiments and interventions into large-scale health promotion programs, addressing behaviour change and quality of life improvement. **Summary:** The contributors of this roundtable will provide their perspective on issues in implementation intention and planning research from the perspective of health behaviour theories, mediating and moderating mechanisms, self-regulation, behavioural habits, and applications for health promotion.

Life transitions, stress and health: New challenges, future directions

Efharis Panagopoulou¹, Kavita Vedhara, Tracey Revenson, Rona Moss Morris

¹Aristotle University Thessaloniki, Greece

Purpose/Rationale: To discuss how health psychology can best address the life transitions associated with the socioeconomic, and demographic changes that Europe is facing at the moment. **Objectives:** (i) To explore the validity of existing health psychology theories in relation to the

current life transitions. (ii) To identify how the current changes influence transitions specifically in relation to health and wellbeing. (iii) To suggest future directions for research and intervention

Summary: Efharis Panagopoulou will initially address the stress and health effects of transition to family life. Tracey Revenson will focus on discussing whether coping with the stress of a life transition should be viewed as an individual or a couple affair. The last two presentations will focus specifically health and disease. Rona Moss Morris will address the new directions associated with the onset of chronic illness, while Kavita Vedhara will discuss the future of illness perceptions as predictor of health outcomes.

Oral Presentations (In alphabetical order by first author)

Attitudes towards ageing in elder care

Isabelle Albert¹, Dieter Ferring, Jean-Paul Friser

¹Université du Luxembourg, Luxembourg

Background: The present study examined if attitudes towards ageing depend on own experiences with old and frail persons. **Methods:** The sample comprised N = 127 participants in the Grand-Duchy of Luxembourg (85 female, 42 male; mean age: M = 46.49, SD = 18.61), subdivided in three groups: professional carers, informal carers, and individuals who had never provided old-age care. Participants were asked to indicate their views about age in general and their expectations about their own ageing by use of a semi-structured questionnaire. **Findings:** Professional and informal carers indicated a higher age as starting point of old age compared to non-carers. Further, professional carers mentioned more negative and less positive features of old age and had more concrete expectations about their own ageing compared to other participants. **Discussion:** Results are discussed with regard to the relevance of attitudes towards ageing for individuals' well-being and for their caregiving for elderly persons.

Cognitive bias for health threat and activity in asthma: Risk or protective factor?

Iana Alexeeva¹, Maryanne Martin

¹University of Oxford, United Kingdom

Background: The experiment investigated whether increased attention to health-threat and avoidance of activity are associated with harmful illness beliefs, depression, maladaptive coping and asthma symptom severity. **Methods:** Asthma (N = 29), and healthy (N = 31) participants randomly assigned to a depressed or neutral mood induction completed two attention tasks (dot-probe and exogenous cueing). **Findings:** Asthma participants in depressed mood were biased towards health threat and away from activity stimuli, unlike healthy controls. In a neutral mood asthma individuals showed avoidance of health threat and activity. Selective attention towards health threat and avoidance of activity significantly predicted asthma severity, current level of activity, and adaptive and emotionally focused coping. **Discussion:** Evidence for cognitive bias towards health-threat and away from activity assists understanding of the mechanisms underlying illness beliefs and coping behaviours, with potential implications for illness monitoring, symptom perception, prevention of asthma attacks, and control and reduction of symptoms.

An obesogenic bias in spatial memory for the location of high calorie snack foods

Julia Allan¹, Kevin Allan

¹University of Aberdeen, United Kingdom

Background: Human spatial memory seems to be adapted to efficiently locate high-calorie foods. This study investigates whether individual differences in the magnitude of this memory bias are

associated with body mass index (BMI). **Methods:** In a cross-sectional design, spatial memory for, dietary intentions about, and perceived desirability of, high and low-calorie snack foods were measured in 41 females (age: 18-35, BMI: 18.5-30.0) using a computer-based task. **Findings:** Multiple regression analysis revealed that after controlling for dietary intentions and food preferences, enhanced spatial memory for high (relative to low) calorie snack location predicted significantly higher BMI ($r(41) = -0.32$, $p = 0.02$). **Discussion:** Human memory may be adapted to increase energy intake and deposit body fat when food is plentiful in order to promote survival when food is scarce. However, in the modern food environment, this adaptation is associated with higher, less healthy BMI, offering insights into novel routes for weight control interventions.

Inhibitory control training leads to weight loss through improved resistance to depletion

Vanessa Allom¹, Barbara Mullan

¹University of Sydney, Australia

Background: Laboratory-based research has demonstrated that inhibition training can improve self-control and eating behaviour. Still to be determined, however, is what specifically is trained and whether this transfers to weight change or eating behaviour outside the laboratory. **Method:** Forty-three participants completed baseline and follow-up measures of self-control, resistance to depletion, weight, height and saturated fat intake. Participants were randomly assigned to either a food-specific stop-signal group where the task was performed daily for ten days, or to a control group in which images were categorised. **Findings:** Training did not improve self-control performance, however, these participants were more resistant to depletion, and demonstrated decreased weight compared to the control participants. Saturated fat intake did not differ. **Discussion:** Results indicate that self-control training increases resistance to depletion and reduces weight but may not improve general inhibitory control. This has potentially important implications for weight-loss interventions.

Emotion regulation coping and savoring in condom use and FV intake

Maria-Joao Alvarez¹, Alexandra Marques Pinto, Cristina Godinho, Telma Carvalho, Ralf Schwarzer

¹University of Lisbon, Portugal

The study aims to elucidate the mechanisms used in self-regulatory efforts in health behavior change. Two longitudinal studies were designed to examine the role of emotion regulation by coping (e.g. emotional support, cognitive reinterpretation) and savoring (e.g. memory building, self-congratulation). Intention, action control, emotion regulation and behaviors were assessed by self-report in condom use (Study 1, $n = 86$) and fruit and vegetable intake (Study 2, $n = 144$). Mediation models were specified using structural equation modeling with emotion regulation strategies specified as simple or multiple mediators between intention and behavior as well as between intention and action control. Although emotion regulation did not mediate the intention-behavior relation, intentions were translated into action control by both emotion regulation coping and savoring. This emerged for condom use as well as for dietary behaviors. The total similarity of the most helpful coping and savoring strategies in both behaviors emphasizes their importance in self-regulation.

Comparing in-person vs. telephone-administered stress management in persons with CFS: Stress and symptom effects

Michael Antoni¹, Emily Lattie, Sara Czaja, Maryann Fletcher, Dolores Perdomo, Sank Nair, Klimas Nancy

¹University of Miami, United States

Background: Using a biobehavioral model of Chronic Fatigue Syndrome (CFS), we proposed cognitive behavioral stress management (CBSM) may offer benefits, but CFS patients face barriers to attending in-person sessions. **Methods:** We compared 3-months of weekly in-person group CBSM (IP-CBSM), telephone-based group CBSM (T-CBSM), telephone-Health Education (TH), and an in-person self-help (IPSH) group in 181 CFS patients participating in 2 RCTs. **Findings:** IP-CBSM ($p < .05$) and T-CBSM ($p < .05$) showed greater Perceived Stress Scale (PSS) reductions than TH and IPSH groups, but there were no significant PSS differences in IP-CBSM vs T-CBSM, $p > .10$. Both CBSM conditions were superior to the comparison groups in reducing CFS symptoms, but IP-CBSM showed larger total symptom severity reduction than T-CBSM ($p < .01$), and larger decreases than T-CBSM in frequency ($p = .01$) and severity ($p = .03$) of post-exertional malaise. **Discussion:** While Telephone-CBSM offers benefits with easier access, in-person CBSM is more powerful for reducing CFS symptoms.

Adapting experience sampling for use in a developing country

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Background: Electronic experience sampling is little used outside Western cultures. We aimed to adapt a successful New Zealand project on symptom experience and responses to Pakistan. **Method:** The English questionnaire was back-translated into Urdu, and revised based on focus groups in Pakistan. Cultural issues around communication between genders and with strangers meant random telephone sampling was not possible; therefore a stratified intercept technique in public places was used in 8 cities across Pakistan. Electronic administration was ruled out due to low internet penetration and difficulty with entering Urdu characters. Participants were prompted by text message, but filled out paper questionnaires for 30 days (mailed back each week). **Findings:** 142 participants (of 153) sent complete data. Little evidence was found of participants not responding daily, but there were some difficulties typical with paper questionnaires. **Discussion:** In developing countries, text message prompts and paper questionnaires can provide good experience sampling data.

A taste of your own medicine: Prevalence of symptoms and self-medication in the community

Mudassir Anwar¹, James Green, Pauline Norris, Elitsa Hineva

¹University of Otago, New Zealand

Background. Understanding the prevalence of symptoms and the responses people make to these symptoms is an understudied element of people's response to ill health. By using experience

sampling of healthy individuals, we aimed to capture all symptoms and responses, including those that would not be observed by recruiting participants from healthcare settings. **Methods.** 154 healthy participants were recruited via random telephone sampling. 30 daily email or text messages prompted participants about symptoms experienced, and responses to their symptoms. **Findings.** 127 participants reported at least one symptom, with headache (60.6%) being the most prevalent. Self-medicating was the most common response on any symptomatic day (34.6%) followed by cutting down on tasks around the home (22.5%), with very few visits to conventional healthcare (4.8%). **Discussion.** People frequently experience symptoms, and usually manage them themselves. Further exploration of this data will shed light on the mechanisms of self-regulation of medicines.

The Influence of Traumatic Brain Injury Impairments on Family Caregiver Mental Health in Mexico

Juan Carlos Arango Lasprilla¹, Camilla Nonterah, Bryan Jensen, Paul Perrin, Lillian Stevens, Teresita Villaseñor Cabrera, Miriam Jimenez-Maldonado, Maria Luisa Martinez-Cortes

¹University of Deusto, Spain

The purpose of this study was to examine the influence of five types of impairments in individuals with traumatic brain injury (TBI)—and caregiver stress due to these impairments—on the mental health of family caregivers in Guadalajara, Mexico. Ninety caregivers completed measures of TBI impairments and of their own mental health. Two canonical correlation analyses suggested that these two sets of variables were broadly related, such that more severe impairments in individuals with TBI, and more caregiver stress due to those impairments, were associated with lower caregiver mental health. Across both of these analyses, social impairments were most associated with increased caregiver burden. Follow-up analyses also uncovered that caregiver stress due to cognitive impairments was uniquely associated with caregiver burden and anxiety. These results are the first to provide evidence that social and cognitive impairments in individuals with TBI from Latin America are the impairments most associated with caregiver mental health and highlight the need for interventions that target social and cognitive functioning and help caregivers cope specifically with these impairments.

Individual and organizational predictors of bullying in the workplace

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The main aim of this study was to investigate the individual and organizational predictors of bullying in the workplace. We examine the impact of the bullying in the workplace on individual health (stress, physical and psychological symptoms) and “organizational health” (job satisfaction, satisfaction with supervision). The sample consisted of 787 workers which 45.1% (n=347) were male and 54.9% female (n= 423). The study design was cross-sectional and data were collected using the Negative Acts Questionnaire, the Organizational Climate Questionnaire, the General Health Questionnaire-12, the Rotterdam Symptom Checklist, the Job In General Scale, the Job Descriptive Index (Supervision Scale), a Demographic and Professional questionnaire. Results showed that bullying in the workplace is a significant predictor of the mental and physical health

reported by workers. We confirmed that bullying is a significant predictor in terms of the job satisfaction and for satisfaction with the supervision. The Occupational Health Psychology appears as a scientific and practical potential in developing programs associated with HRM to promote dignity at work.

Efficacy of Behavioural Interventions for Transport Behaviour Change: A Systematic Review with Narrative Moderator Analyses

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Background: Inactivity is killing as many as smoking. Active commuting for regular journeys could increase individual physical activity levels. This review critically evaluated the available evidence for efficacy of existing behavioural interventions to change transport behaviours. **Methods:** Controlled trials of behavioural interventions for transport behaviour change in adult participants were included. Outcome measures of transport behaviours, including the promotion of more active travel, were compared with no interventions or alternative interventions. The CALO-RE taxonomy was used to map behaviour change techniques with intervention efficacy. **Findings:** Thirteen articles were included, representing 11 unique studies. These were summarised narratively, with moderator analyses. Methodological quality assessments suggested considerable risk of bias. **Discussion:** The evidence for the efficacy of behavioural interventions to promote more active travel is currently weak and inconclusive, with considerable risk of bias. Exploratory moderator analyses identified promising behaviour change techniques, including action planning and self-monitoring.

Cultural Validation of CQI-measurements measuring minority ethnic patients' perspective on quality of care

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Background: In improving quality of healthcare it is important to take patients' perspective into account. In the Netherlands, the Consumer Quality Index (CQI) is used for this, though entirely based on a native Dutch perspective. Minority ethnic patients may have different needs. This study assessed whether CQI instruments successfully capture their care experiences, and whether CQI's are applicable to them. **Methods:** 12 Focus group discussions with Surinamese, Antillean, Turkish and Moroccan patients were held, and discourse-analysed using MAXQDA. Applicability of the questionnaires was tested using think-aloud interviews (N=45). **Findings:** Focus group participants (N=94; 62% women) agreed that the CQI covered all quality-of-care themes important to them, but requested additional culture sensitive items. The think-aloud interviews revealed that considerable adjustments were required. **Discussion:** The concept of 'quality of care' does not substantially differ between minority ethnic and native Dutch patients. Think-aloud interviews proved highly valuable in the process of questionnaire design.

Midwives' views of a weight management service for obese pregnant women

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Background: Midwives play a crucial role in supporting obese pregnant women to achieve a healthy gestational weight gain. Research suggests that midwife referral to and endorsement of weight management services influences service uptake among obese pregnant women. **Methods:** 12 community-based midwives from one English city were interviewed regarding their views of a free six-week weight management service for obese pregnant women. Data were analysed thematically. **Findings:** Themes identified included; "Positive views of the service", "Explanations for poor service uptake", "Offer a referral vs. refer all", and "Limited knowledge of service". **Discussion:** Most midwives viewed their role as to inform obese pregnant women about a weight management service but not to actively promote it or question women's decisions to decline a referral. Midwives' lack of in-depth knowledge of the service's aims and content may limit their ability to tap into individual women's motivation towards weight management.

Variation in standard care for young people with type 1 diabetes: Implications for interpreting RCTs

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Background: Inadequate description of standard care can compromise interpretation of outcomes in RCTs. We aimed to describe standard care variation among RCTs of behaviour change interventions for young people with type 1 diabetes. **Methods:** Systematic searches identified 20 RCTs that met inclusion criteria. Published information about standard care was extracted and authors contacted to retrospectively complete a checklist of standard care activities (75% response rate). **Findings:** The number of assessed standard care activities (annual review; referral to psychologist) delivered to all patients ranged from 2 (11%) to 15 (79%). In 40% of trials, at least one of the standard care activities assessed was not delivered to any patients. **Discussion:** Variation in standard care has implications for accurate comparison and interpretation of RCTs as active behaviour change techniques influence outcomes in both control and intervention groups. These findings further underline the importance of adequately describing standard care in RCTs.

Significant other expressed emotion, relationship quality and patient outcomes in Chronic Fatigue Syndrome

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Background: Significant others' responses have been identified as important for patient outcomes in CFS/ME. This study examined significant other Expressed Emotion (EE): criticism and emotional over-involvement (EOI), in association with relationship quality and patient outcomes. **Methods:** Fifty-five dyads were recruited. Observed Significant other EE was coded from a

modified Camberwell Family Interview; patient outcomes, relationship quality and perceived EE were derived from patient questionnaire measures. **Findings:** Relationship happiness was lower in observed high-EOI dyads. However, high perceived EOI was associated with better relationship outcomes, and better physical functioning. Increased relationship happiness was associated with better physical functioning and reduced pain. Positive patient relationship perception was associated with significantly lower disability, bodily pain, depression, and better physical functioning. Significant other criticism did not correlate significantly with patient outcome variables. **Discussion:** Patients' relationship perceptions were associated with outcomes whilst observer rated relationship variables were not. The relevance of the EE methodology will be discussed.

Risk factors and lifestyle: Awareness and practice are two different things

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Background: Risk factors of psychosomatic disorders are closely associated with life-style. We assume that people know how to organise leisure time in order to minimize risk but still do not do it right. **Methods:** Cross-sectional questionnaire study. 388 participants (18-72 ys, 73% females, 75% large cities). 7 open questions, 2 nominal and 4 interval scales. **Findings:** Internal harmony (50%) and health and fitness (23%) were mentioned as major factors of well being. Physical activity was preferred by 70% for well-being and by 81% for energising. 17% would select sports if had a free choice for a week. Participants believed leisure time should be carefully planned and recreation is important for one's well-being and health. **Discussion:** Though people are aware of what they should do, only 9% of the population walks or hikes, and 7% practices physical exercise regularly. Further research should clarify the discrepancy and find solutions.

Does stage-tailoring matter? Long-term results from a randomized controlled trial on brief alcohol interventions

Sophie Baumann¹, Beate Gaertner, Inga Schnuerer, Katja Haberecht, Gallus Bischof, Ulrich John, Jennis Freyer-Adam

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Background: To investigate whether an alcohol intervention tailored to the stage of motivation to change is more effective than a non-stage-tailored intervention. **Methods:** Job-seekers with unhealthy alcohol use (N=1,243; 76% not motivated to change) either received stage-tailored feedback-letters based on the transtheoretical model, individualized non-stage-tailored feedback-letters based on the theory of planned behavior, or assessment only. All groups were followed-up at three, six and 15 months. Piecewise-Latent Growth Models were conducted to investigate change in alcohol use and related problems baseline to month 3, and month 3 to 15. **Findings:** All groups reduced alcohol use from baseline to month 3, and the intervention groups from month 3 to 15. When including stage of motivation as a covariate, only the stage-tailored group reduced alcohol use from month 3 to 15. **Discussion:** Compared to non-stage-tailored interventions, stage-tailored interventions appear to be more efficacious for individuals not motivated to change unhealthy alcohol use.

Do French adolescents friends share similar eating behaviour?

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¹B-research, France

This study explored peer influence on eating behaviours in French schoolchildren aged 11-12 by examining the degree of within-clique similarity in healthy (e.g., fruit) and unhealthy (e.g., sugary snacks) foods eaten as an afternoon snack. We predicted that there would be little similarity at T1 (entrance to senior school) but a high degree at T2 (end of first-year), once peer influence had had time to exert an effect on behavior. **Method:** Children described their afternoon snack and closest friendships in a questionnaire at T1 and T2. Cliques were identified using Ucinet. **Results:** MANOVA (IV: clique, DVs: snack type) revealed no within-clique similarity at T1. However, at T2 there was significant within-clique similarity overall, $F(38,71)=5.35$, $p<.001$. Proportion of variance accounted for by clique was higher for unhealthy snacks (e.g., sugary snacks=14.28%) than for healthy snacks (e.g., fruit/vegetables=5.29%). **Discussion:** Peer influence plays a role in unhealthy snack consumption in schoolchildren.

Cross-contamination during chicken meat preparation: An intervention applying the health action process approach

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The aim of the longitudinal intervention study was to increase the participants' awareness of cross-contamination during cooking, utilising the Health Action Process Approach (HAPA) as theoretical framework of behaviour change. The study comprises three measurement points (t1, t2, t3) with the intervention implemented at t2. At t1, baseline behaviour was determined. The motivational HAPA variables were assessed at t2, the volitional variables a month later at t3. A total of 185 first-year university students (41% male, mean age 21.6 years) completed all three parts and were included in the study. There was a significant increase of avoidance of cross-contamination between t1 and t3. To examine the HAPA model, regression analyses were calculated, which indicated that volitional self-efficacy was the strongest predictor of self-reported behaviour. The intervention was successful in enhancing the awareness for cross-contamination. Overall, the study provides evidence for the usefulness of the HAPA for the investigation of behaviour change for this particular behaviour.

Repeated real time measures of work stress in nurses may not relate to questionnaire accounts

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Background: We investigated whether real time measures (Ecological Momentary Assessment, EMA) of work stress constructs relate to each other as expected and to standard questionnaires. **Methods:** Nurses (Study1 N=40; Study 2 N=60) completed questionnaires before completing EMA items using electronic diaries every 90 minutes over two 12 hour shifts. Demand, control, effort and

reward were measured using a) standard questionnaires (Job Content & Effort-Reward Imbalance) and b) questions adapted for EMA [visual analogue scales (VAS) and binary measures]. **Findings:** In Study 1, VAS and binary EMA measures of each construct intercorrelated strongly (all $p < .05$). None of the EMA measures related to the questionnaires assessing the same constructs (all $p > .05$). Study 2 (completed) will determine if the findings replicate. **Discussion:** Overall global ratings of the theoretical constructs of work stress are not simply the sum of multiple moment by moment ratings. If replicated, these findings have both theoretical and practical implications.

The effectiveness of community health worker interventions in reducing cardiometabolic risk: A systematic review

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Background: Community Health Workers (CHWs) deliver health promotion programs to reduce cardiometabolic risk. The aim of this review is to assess which CHW-led interventions are effective and what behaviour change techniques (BCTs) are commonly applied. **Methods:** Databases were searched to identify randomized controlled trials published from 2000 onward describing CHW-led interventions which focused on physical activity, nutrition or smoking. **Findings:** Nineteen articles met the inclusion criteria. Most interventions targeted multiple lifestyle behaviours and assessed effects on behavioural, biological and psychological outcomes. Fourteen interventions showed an effect on at least one outcome measure. Effective interventions employed an average of seven BCTs (range 2-20). Most commonly applied BCTs were goal setting, barrier identification, coping planning, self-monitoring and mobilizing social support. **Discussion:** The majority of CHW-led interventions seems effective in lowering various risk factors for cardiometabolic risk.

Self-determination and goal directed behavior in relation to alcohol use and well-being of university students: International study SLiCE

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Background: Based on the Self-determination theory the aim of this study was to explore the role of self-determined functioning and goal-directed-behavior in relation to alcohol use and well-being of university students longitudinally. **Methods:** University students from Slovakia, Hungary and Lithuania ($n=670, 76\%$ females) participated in an online survey (SLiCE) providing information on alcohol use (AUDIT) self-determination (SDS), goal-directed-behavior (SRS), depression (MBDI) and well-being (GHC) at the baseline and a one year follow-up. The data were analyzed using regression analyses. **Findings:** Linear regression models conducted individually in each country showed longitudinal associations between SDS, SRS and aspects of well-being especially depression ($R^2=0.10-0.27$, $p < 0.001$). The association with alcohol use at one year follow-up was much weaker. The alcohol use at the one year follow-up was most closely associated with the baseline alcohol use ($R^2=0.37-0.62$; $p < 0.001$). **Discussion:** The results of this study are in line with the theoretical assumptions and current findings. However, they also emphasize that further research should address causal pathways.

Factors influencing and predicting the use of psychotropic drugs in Northern Ireland

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Aim: To identify the key characteristics and demographics of those more likely to use psychotropic medication in Northern Ireland. **Methods:** A secondary data analysis of the Northern Ireland Study of Health and Stress (NISHS), a household survey of 4,340 adults over 18, which included questions on the use of prescription medication in the previous 12 months. **Findings:** Logistic regression revealed age, gender and marital status to be significant predictors of the use of psychotropic medication in the population. Females, older age groups and those not married were more likely to indicate they had taken psychotropics in the previous 12 months. **Discussion:** Possible reasons for the increased use of this type of medication among certain groups of the population are explored.

Who benefits from an action plan intervention to promote weight loss? An experimental field test

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Background: The study aimed to assess the effects of forming specific behavioral intentions and detailed implementation intentions on weight loss, and the moderating role of goals and self-efficacy. **Methods:** 632 participants in a 10-week group lifestyle program, also followed-up at 3 and 12 months, participated in an intervention involving rating planned use of weight loss techniques (Behavioral Intentions condition, BIC), and both rating planned use and forming a detailed action plan for two strategies (Implementation Intentions condition, IIC), compared to a Control condition (CC). **Findings:** The BIC and IIC lost 40% more weight during the 10-week program than the CC; no significant differences found in the next year. Weight loss goals interacted with study conditions: Higher goals led to greater weight loss in the IIC during the program. **Discussion:** A theoretically-based planning intervention is modestly effective in a field setting, especially with weekly support of weight loss efforts and for those with initial high goals.

Understanding consumer uptake of personalised nutrition: A qualitative study

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Background: Personalised nutrition (PN) may provide potential health benefits to individuals, but is not widely adopted. To stimulate uptake, we explore how different PN attributes contribute to consumer risk and benefit perceptions of PN. **Methods:** 16 focus groups (N = 124) were conducted in 8 EU countries, discussing 9 PN offerings differing in communication, scope, frequency, justification, advice provider, data type, and lock-in. Transcripts were content analysed.

Findings: PN based on blood and medical examinations is most preferred. Including health professionals, personal contact, exercise advice, regular meetings, and guidance in a PN offering is essential. Opinions regarding attributes such as a shopping list, exercise facilities, group support, incentives and the inclusion of personal food preferences differed between participants. **Discussion:** Designing PN offerings that account for essential consumer needs, and simultaneously tailoring these offerings to specific consumer segments, is needed to generate wider uptake of PN.

Inter- and intraindividual associations between volitional processes and daily smoking during a quit attempt

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Background: The Health Action Process Approach (HAPA) assumes that volitional processes are important for effective behavioral change. This study examined the associations of volitional predictors and daily smoking in quitters at the inter- and intraindividual level. **Method:** Overall, 105 smokers completed daily electronic questionnaires 10 days before and 21 days after a self-set quit date, assessing intentions, self-efficacy, planning, action control and numbers of cigarettes smoked. **Findings:** Multilevel analyses showed that mean levels of volitional predictors across the 32 days were negatively associated with numbers of cigarettes smoked. Moreover, on days with higher intentions, self-efficacy, planning and action control than usual, less cigarettes were smoked. These effects were stronger after the quit date than before the quit date. Intentions and action control emerged as most powerful predictors at the intraindividual level. **Discussion:** Findings emphasize the importance of volitional processes at the intraindividual level in the context of quitting smoking.

Changing bias: active overweight rated more fit and normal weight sedentary less fit after retraining

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Background: The purpose was to decrease bias that active overweight people are unfit and increase bias that normal weight sedentary people are unfit. **Methods:** Participants (N = 58) were randomly assigned to active overweight or normal weight sedentary bias retraining conditions and completed baseline implicit and explicit bias measures; after one week they completed an implicit retraining task and posttest measures; they completed follow-up measures one week later. **Findings:** Explicit bias decreased in the overweight active condition, $F = 4.82$, $p = .01$, $\eta^2 = .14$, and increased in the normal weight sedentary condition, $F = 8.77$, $p = .001$, $\eta^2 = .42$, from baseline to follow-up. **Discussion:** Pairing images of overweight active persons with positive words (e.g., fit) can decrease bias. Pairing images of normal weight sedentary persons with negative words (e.g., unenergetic) can increase the idea that such people are unfit. Implications for health promotion are discussed.

Burned out but not depressed? A re-examination of the burnout-depression overlap

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Background: The extent to which burnout and depression cover distinct pathological grounds is unclear. In this study, we estimated the prevalence of minor and major depressive disorders in burned out workers (BOW). **Methods:** Burnout was assessed in 5575 workers by using the Maslach Burnout Inventory. The 9-item depression module of the Patient Health Questionnaire (PHQ-9) was administered in order to establish provisional depressive disorder diagnoses and grade depressive symptom severity. Advantageously, the PHQ-9 directly targets DSM-IV depression diagnostic criteria. **Findings:** About 90% of BOW were identified as depressed, against less than 3% of workers with no symptom of burnout. About 85% of BOW exhibited a total PHQ-9 score of at least 15, a threshold at which immediate initiation of pharmacotherapy and/or psychotherapy is recommended. **Discussion:** An overwhelming majority of BOW appears to meet diagnostic criteria for depression. We suggest that burnout should be regarded as a depressive disorder with job-related aetiopathogenesis.

Trialling a self-directed online therapeutic resource to improve quality of life in irritable bowel syndrome

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Online interventions have been efficacious in improving quality of life (QOL) with Irritable Bowel Syndrome (IBS); however efforts have required ongoing therapist involvement. This study trialled an online IBS resource without therapist involvement and assessed for improvement in patient outcomes. Specialist and community patients with IBS were randomly assigned to either wait-list or intervention condition. The intervention condition (n=45) were given access to the resource for eight weeks and wait-list completed a six week wait (n=32). Pre- and post-questionnaires were completed, and again at three months follow-up. The intervention condition experienced significant improvement in QOL and reductions in gastrointestinal-specific anxiety and somatisation levels compared with wait-list who reported minimal change at post-assessment (all p 's < 0.05). These gains were sustained at follow-up. Patients experienced improvements from the resource without therapist involvement. Patients self-determined content to engage with and to what extent. The findings support future implementation in resource-limited healthcare contexts.

The role of group processes in facilitating change in group-based health interventions

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Background: Groups have been commonly used in health interventions but it is unclear how this delivery mode might itself influence the effectiveness of behavior change interventions.

Methods: A review of theories of group dynamics was undertaken to identify group processes found to facilitate personal change. **Findings:** A range of inter- and intra-personal processes were identified as being relevant to the effective use of groups in health behavior change interventions. These include social comparisons, social validation, social power, identification, attribution, as well as group atmosphere, cohesion, and norms. **Discussion:** Implications for how change techniques may need to be selected and modified for the delivery by means of group-based interventions will be discussed. Social processes should be considered more carefully in the design and evaluation of group interventions, and in the training of group facilitators.

The moderating effects of physical activity and exercise on menopausal symptoms

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Background: Findings on the role of physical activity and exercise on menopausal symptoms are limited and equivocal. The aim of the present study was to examine the relationship between physical activity and menopausal symptoms. **Method:** 144 peri- and 79 post-menopausal women (Total N = 223) completed an online survey including demographic information and the Kaiser Physical Activity Survey (KPAS) and the Women Health Questionnaire (WHQ). **Findings:** Regression analysis showed that a higher Sport & Exercise Index of the KPAS was associated with a reduction in depressive, and somatic, symptoms and improved memory. The Household & Care-giving Index was associated with more sleep, anxiety, depression, somatic and vasomotor symptoms and poor memory function. Finally a higher Active Living Index was associated with higher somatic symptoms and Higher Occupation Activity Index was associated with increased depression symptoms. **Discussion:** Women who were physically active reported less negative menopausal symptoms than those who were inactive.

Role models increase the effect of regulatory-fit on the intention to adopt dietary-behaviours

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A promotional communication framed to match receivers' regulatory-focus increases individuals' decision to engage in health-behaviours. In three studies, we analysed the effect of regulatory-fit on the decision to adopt dietary-behaviours, and how it can be induced by promotional-campaigns. Firstly, we analysed the effect of regulatory-fit between individuals regulatory-focus (induced by a pre-message independent-task) and message-framing. We then demonstrated how the importance assigned to regulatory-oriented tactics and strategies can be influenced by exposure to role model experiencing the gains (or losses) resulting from the adoption (non-adoption) of the behaviour. Finally, we analysed the effect of the intra-message regulatory-fit, between message-framing (promotion-gain vs prevention-loss) and role model (experiencing gains vs losses). Results demonstrated that participants exposed to regulatory-fit have the highest perception of response-efficacy and intention to engage. The discussion will focus on the possible mediating variables of the effect of regulatory-fit, and on possible applications of these findings.

Doctors' view on intercultural competence in the medical setting in Luxembourg

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Intercultural competence is an increasing area of research in the field of medical communication, and of special interest in a multilingual and multicultural country like Luxembourg. In our study, a heuristic model of intercultural competence was built by integrating several existing and complementary theoretical models. This newly created model includes situational conditions, personal conditions, and components of intercultural competency (i.e., knowledge and skills). The present study investigated the view of doctors in Luxembourg on the concept of intercultural competency, as it is depicted by this model. The research questions were explored by a qualitative research design. Interviews were conducted with general practitioners (N = 12) and those were analysed by qualitative content analysis. The findings confirm the complexity of the definition of intercultural competence in the medical setting and they highlight the importance of language skills and cultural experience for the practitioners' conception of intercultural competence.

Postnatal bereavement, adult attachment and trauma: A latent profile analysis approach

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Background: The loss of a child can be devastating and traumatizing for parents constituting a risk factor for symptoms of post-traumatic stress disorder (PTSD) and other psychiatric disorders. **Methods:** 600 bereaved parents completed measures of the Revised Adult Attachment Scale and Trauma Symptom Check-list. A 3-step latent profile analysis was conducted to assess the relationship between demographic, attachment style and trauma symptomatology. **Findings:** The four class solution (fearful, dismissing, secure and preoccupied) was considered optimal. The secure class demonstrated significantly lower means scores in terms of PTSD symptoms. The fearful class displayed significantly higher means compared to the other classes. **Discussion:** Secure attachment may serve as a protective factor whereas fearful attachment style may pose as a risk factor for psychiatric symptoms and a need for care.

A qualitative study of the relationship between number of medicines and illness perceptions in hypertension

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Background: Some chronic illnesses, such as hypertension, require multiple medications, with each medication often comprising multiple physical doses (e.g., tablets), not including other medicines for comorbidities. We aimed to explore whether perception of illness was related to the number of medicines/physical doses taken. **Methods:** Semi-structured interviews were

conducted with ten purposively selected patients with hypertension in Canterbury, New Zealand. General thematic analysis was performed. **Findings:** A primary theme of adjustment to and acceptance of multiple medicines and doses emerged. Several potential mechanisms by which this occurred were described, including ‘chunking’, where medicine organisers lead to multiple tablets being seen as a single dose, and comparing themselves with others taking more medicines than themselves. **Discussion:** Participants’ illness perceptions were nested within social context, including their relationships with their healthcare professionals. Understanding how some people come to accept taking large numbers of medicines may guide strategies to increase adherence.

Social comparison sensitivity as predictor of the effectiveness of a psychological intervention for cancer survivors

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Background: Not all cancer survivors benefit from psychological interventions. The aim of this study was to test whether the success of the treatment in lowering or preventing anxiety and depressive symptoms (distress) could be predicted by specific individual differences. **Methods:** A cohort of 71 Dutch cancer survivors (Mage = 55 years; 74.6% women) filled out questionnaires before the psychological intervention started in a cancer specific care center and after six months. Distress was the dependent variable. Individual differences in physical condition and social comparison sensitivity were used to predict level of distress after six months. **Findings:** As evidenced by a significant interaction ($p = .022$), cancer survivors with a poor physical condition who were not particularly sensitive to social comparison information benefitted the least of the treatment. **Discussion:** The results stress the need to pay more attention to this group of patients to also let them benefit from psychological interventions.

“Let’s have a drink together!” – Social setting and patterns of youngsters’ alcohol use across Europe

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Background: According to health behavior models, significant others determine behavior by modeling behaviors or providing norms. The purpose of this study is to evaluate the relationship of the social situation of drinking occasions (with peers or parents) and adolescent alcohol use patterns in order to find preventive factors and to analyze differences in these relationships across Europe. **Methods:** Self-reported data from 27653 12 to 16 year old alcohol experienced students from 25 European countries was analyzed using hierarchical logistic regression. **Findings:** Drinking beer, wine or breezers with their parents lowers the youngsters’ chance to be a problematic alcohol user (OR = 0.12). Thus, in countries like Armenia or Cyprus the proportion of problematic users is low whereas in countries where drinking with peers is more common it is high (e.g. Austria, Estonia). **Discussion:** Further research needs to clarify if drinking with parents is really protective, e.g. by learning responsible drinking.

Beliefs about medicines and medication adherence in patients with rheumatoid arthritis in Germany

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Background: Adherence to medication is crucial to achieve treatment control in chronic disease. We investigated the associations between beliefs about medicines and medication adherence in patients with rheumatoid arthritis (RA). **Methods:** Patients with physician-diagnosed RA completed the “Beliefs about Medicines-Questionnaire” (BMQ) and the “Medication Adherence Rating-Scale” (MARS). 262 patients were included in an interim analysis. In order to predict non-adherence multivariate logistic regression analyses were computed for each subscale. **Findings:** 66.9% of patients were non-adherent. Non-adherence was predicted by general beliefs about medication overuse by doctors (OR = 1.12; CI: 1.01-1.24), general beliefs about harm of medications (OR=1.12; CI: 1.00-1.25) and specific concerns regarding individual medications (OR=1.11; CI: 1.03-1.19). Beliefs about general utility and specific necessity were not associated with adherence. **Discussion:** The finding that negative, but not positive beliefs were weakly associated with adherence in RA may inform the development of targeted educational measures.

The importance of contributing to the community to maintaining a positive identity in later life

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Population ageing focuses on consumption of health services and ignores the contribution older people make to the community. Contribution is complicated by changing positions in communities, but older people seek to contribute despite changing resources. This interview study of 143 people aged 65 to 93 years found that older people valued making a contribution to the community in later life. This paper will discuss three types of contribution: giving donations, practical support, and volunteering. Being able to contribute in these ways supports a positive identity as fortunate, as able to reciprocate for help needed, and as engaged in the wider world. Inability to contribute in these ways has implications for a positive identity in later life. The ability to contribute in various ways is vital for social engagement, which promotes the health of older people. Support for appropriate community contribution should be understood as an important aspect of ageing successfully.

The serial role of affect and cognition in motivating health behavior

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Background. Kiviniemi’s behavioral affective associations model suggests that utility judgments like perceived severity elicit affect which then motivates behavior. **Methods.** Two experiments manipulated descriptions of HPV vaccine as preventing genital warts, one cancer, or two cancers,

with probability samples of US adult men (n=608) and US boys' parents (n=327). **Findings.** In both experiments, framing HPV vaccine as preventing cancer increased willingness to vaccinate (both $p < .001$). Perceived severity of disease partially mediated the association between disease outcome and HPV vaccination willingness in both experiments (Sobel tests, $p < .001$). Experiment 2 further revealed that fear of disability, dependence, and death mediated the effect of cancer framing on perceived severity. **Discussion.** The findings suggest affect precedes utility judgments, the converse of what Kiviniemi et al. hypothesized and demonstrated in a cross-sectional study. Additional experimental evidence is needed to clarify the role of affect in utility judgments and health behaviors.

The mediational role of burnout between job demands and suboptimal care behaviors

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Aim: The present research investigates the mediating effect of burnout in the relation between job demands and suboptimal care behaviors among healthcare professionals. **Method:** A sample of 461 physicians, residents and nurses working in a Romanian university hospital filled out the Maslach Burnout Inventory - General Survey, the Questionnaire on the Experience and Evaluation of Work, and a self-reported Suboptimal Patient Care Behaviors scale. All scales had good psychometric properties. Structural equation modeling with Bootstrapping analysis (a 95% bias-corrected interval confidence and 4000 trials) was used to test the hypothesized model. **Results:** Data fit the model well: $\chi^2(11)=70.282$, CFI=.931, NFI=.920, GFI=.958, and RMSEA=.108. Results confirmed that burnout fully mediates the relation between job demands (perceived workload, cognitive and emotional demands) and suboptimal care behaviors. **Conclusions:** Our results have implications for designing interventions focused on reducing burnout and suboptimal care behaviors among healthcare professionals.

The effects of mortality reminders on posttraumatic growth and finding benefits among patients with life-threatening illness and their caregivers

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Background: Individuals confronted with a life-threatening illness report posttraumatic growth (PTG) or finding benefits in disease. These positive evaluations of personal strength, perceptions may represent a defensive response (cf. Janus-face model). **Methods:** Three studies investigated the effects of mortality reminders on reports of PTG or benefit findings among 80 people living with HIV (Study 1), 164 breast cancer survivors (Study 2), 50 caregivers for a Huntington Disease's patients (Study 3) and were randomly assigned to the experimental (mortality reminders) or control conditions. **Findings:** Those exposed to mortality reminders reported lower PTG/ benefit finding than the controls. These effects were moderated by time elapsed since diagnosis: mortality reminders led to lower PTG/benefit finding among those who received the diagnosis more recently. **Discussion:** The results show the defensive character of PTG/finding benefits in illness and changes in the function of these beliefs over time elapsing since diagnosis.

Behaviour change techniques within diet, activity and smoking interventions for low-income groups: A systematic review

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Background: Across Europe, low-income groups engage in poorer health behaviours. We conducted a systematic review of randomised control trials (RCTs) of behaviour change interventions for low-income groups examining behaviour change techniques (BCTs) associated with effective interventions. **Methods:** Eight databases were searched (for studies published 2006-2011) and 31 RCTs (40 interventions) met inclusion criteria. Post-treatment intervention and control group differences were compared. The 93-item BCT taxonomy v1 (Michie et al. in submission) was applied to identify BCTs. **Findings:** Compared to controls, 21 interventions (53%) were effective post-intervention. Narrative synthesis suggests that effective interventions tended to apply techniques to change environmental context (e.g. providing fruit in a low-income workplace). Meta-analytic results will be presented. **Discussion:** Effective BCTs of interventions for low-income groups were identified. Findings imply that people of low socio-economic status may benefit from 'non-reflective' interventions with BCTs to prompt or cue behaviour change.

Functional food and health: A discursive approach

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Functional foods (FFs) are defined as food products with specific health benefits beyond their basic nutritional value. They have been marketed by the food industry as a means for consumers to actively engage in health protection, disease prevention and amelioration by including FFs into their regular diet. FFs thus operate between food and medicine. This research investigated women's understandings of FFs using a discursive approach. Three focus groups involving 15 women were conducted, with content recorded, transcribed and analysed using critical discourse analysis. Findings showed how the women continually constructed, deconstructed and reconstructed FFs in different contexts. FFs were conceptualised as 'personal', 'curative', and 'modern', and considered as fulfilling different dietary needs to non-FFs. These understandings of FFs were shaped by nutritional idealism, and constructions of health and the body, suggesting that FFs occupy a very specific place in dietary health.

The Hospital Anxiety and Depression Scale, factor analysis, and why health psychologists shouldn't care anymore

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Background. Recent controversy has surrounded the validity and structure of the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). We critique the HADS and explore its latent structure in a large cross-country sample. **Method.** Data from HeartQol project

participants (n=6241, 22 countries) who completed the HADS was analysed using 1) exploratory factor analysis (EFA) 2) Mokken scaling analysis (MSA) 3) confirmatory factor analysis (CFA). **Findings.** HADS items do not match depression or anxiety diagnostic criteria. EFA techniques were supportive of both a one-factor and two-factor solution, depending on output interpreted. MSA found a single dimension of distress. SEM supported a hierarchical bi-factor solution. **Discussion.** The HADS combined total score is the simplest and most practical solution to adopt. However, better measures of anxiety and depression exist and should be used. EFA was largely ambiguous, and should no longer be considered to assess dimensionality in the HADS.

Depression and future cardiovascular risk markers in children

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Background: Depression is a risk marker for cardiovascular disease (CVD) in adults. However, depression is also experienced by sizeable numbers of children. This study examines the question of whether CVD risk markers can be predicted in children with signs of depression. **Methods:** 850 children in their first school year were assessed at intake with standardized measures of depression and CVD risk markers. Repeat measures of all these variables were then made both 2 and 4 years after intake. **Findings:** Depression scores at both intake and 2 year follow-up predicted cardiorespiratory fitness and percent body fat at 4 year follow-up. Depression also predicted blood fats and insulin resistance over the same time periods. Depression did not usefully predict direct CV functioning though there was some evidence of a prospective association in girls. **Discussion:** Depression in childhood then clearly foreshadows emerging CVD risk. Interventions to reduce childhood depression, apart from having value in their own right, may have added value in reducing identifiable CVD risk later in life.

Social sharing of emotions (SSE) in HIV/AIDS patients: The importance of quality over quantity

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Research shows that chronic illness patients inhibit the SSE. Since most SSE studies focus on quantitative aspects, the following hypothesis was tested: the quality of SSE (QSSE) in HIV/AIDS patients (N = 101) is associated to the positive outcomes resulting from emotional expression. A questionnaire assessed: shame, guilt, anxiety, depression, physical symptoms and quality of life, SSE, and QSSE. Inhibited SSE was negatively correlated to shame and guilt; no association was found between inhibited SSE and anxiety, depression or physical symptoms. QSSE was correlated negatively to anxiety, depression, shame and guilt, and positively to physical well-being. A statistically fit pathway analysis ($\chi^2(9) = 16.34$; RMSEA = 0.090; GFI = 0.96; CFI = 0.097) evidenced the role played by QSSE in the prediction of HIV/AIDS' patients psychological and physical well-being and their quality of life. Findings suggest the importance of qualitative aspects when studying SSE in HIV/AIDS.

The impact of threat appeals on psychophysiological fear arousal responses and risky driving behaviour

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Threat appeals have been widely used in road safety advertisements. Research examining their effectiveness in reducing risky driving, however, has produced inconsistent findings. We suggest this is partly due to a lack of clarity surrounding the measurement of fear arousal in experimental studies. Following on from techniques employed in recent papers (e.g. Ordonana et al., 2009), guided by findings from a meta-analysis (Carey et al., submitted), and in order to provide an objective analysis of the impact of threat appeals on fear arousal and risky driving, two experiments were conducted. Study 1 (N=65) examined psychophysiological responses to threat appeals, and found differential response patterns to high-threat advertisements, compared with low-threat/neutral messages. Study 2 (N=80) examined behavioural responses to threat appeals, using a Video Speed Test. S2 results highlight the roles of perceived efficacy, severity and vulnerability in moderating risky driving. Findings have implications for researchers and practitioners in this area.

The impact of time span on the quality of life of HIV positive individuals

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The Acquired Immunodeficiency Syndrome (AIDS) and Human Immunodeficiency Virus Immunodeficiency Virus (HIV) is an international public health problem. With the advent of antiretroviral therapy, there was a significant increase the lifetime. As a consequence it is expected an improvement in the quality of life (QoL) of people living with HIV. This subjective concept (QoL) includes physical, psychological and social aspects. Time span is a fundamental dimension influencing the practices and representations used to cope with the disease and treatment. Data was collected from 50 French HIV positive patients. From a time perspective, it was measured: time since the discovery of disease, and time from the beginning of treatment (both separated in 3 groups: less than 1 year, between 1 and 2 years and more than 2 years). It was also evaluated self-efficacy, as well as the QoL. Between time since discovery and from the beginning of treatment, results show a positive correlation with QoL; as well as a negative correlation between time from the beginning of treatment and self-efficacy. This study shows that over time individuals adapt to the new situation, create new representations about the disease and as a consequence impact aspects of life, increase the QoL.

Size matters: Approach motivation towards healthy and unhealthy foods in low self-control conditions

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Background: While research shows that people make unhealthy food choices in low self-control conditions (LSCC), the underlying mechanisms remain unexplored. Accordingly, the current study

examined approach motivation as an underlying mechanism of self-control, hypothesizing that in LSCC people become reward-oriented, showing greater approach motivation towards unhealthy (reward-relevant) compared to healthy foods (reward-irrelevant). **Methods:** In a size perception task, 86 participants estimated the height of a healthy and unhealthy food product, where size estimations served as implicit measure of approach motivation. **Findings:** A significant food-type by condition interaction suggests that approach motivation towards unhealthy foods did not increase in LSCC; however, in the control condition people had an advantage of greater approach motivation towards healthy foods. **Discussion:** These results question whether approach motivation necessarily becomes reward-oriented or that it becomes less goal-oriented in LSCC. By better understanding approach motivation, it could be more accurately targeted to correct people's unhealthy food choices.

Using behaviour change theory to inform medical education: The Tent Pegs intervention

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Background: Medical schools should prepare students to discuss health-related behaviour change with patients. Empirical reports of effective education in this area are lacking and translation of behaviour change theory to medical education has been poor. We therefore developed health-related behaviour change education for medical students. **Methods:** A 3-hour educational intervention for medical students (n = 34) was evaluated using a mixed methods approach. Students completed pre- and post-intervention surveys assessing beliefs, intentions, and skills relating to discussing obesity with future patients. Tutor fidelity and student feedback were used to investigate intervention feasibility and acceptability respectively. **Findings:** Students' were more likely, post-intervention, to 1) discuss obesity with patients post-intervention and 2) use effective communication skills. The intervention was delivered consistently by tutors, and was highly valued by students. **Discussion:** Behaviour change theory can inform medical education that is feasible, acceptable and potentially effective in improving behaviour change talk by future doctors.

The influence of knowing someone with HIV/AIDS on preventive behaviors in Italy

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Background: The influence of knowing someone with HIV/AIDS on preventive behaviors has become increasingly relevant in the literature, with controversial findings. Aim of this study was to investigate the relationship between knowing someone with HIV/AIDS and preventive behaviors in a representative sample of the Italian adult population. Drawing on two socio-cognitive models, perceived threat and HIV/AIDS knowledge were proposed as mediators of this relationship. **Methods:** A sample of 1969 residents in Italy was interviewed. The interview included: socio-demographic information, knowing someone with HIV/AIDS, past sexual behaviours, HIV/AIDS knowledge, perceived threat, and preventive behaviours (HIV testing, condom use). **Findings:** The results of multiple mediation models showed that knowing someone with HIV/AIDS had an indirect effect on condom use through perceived threat. Knowing someone with HIV/AIDS showed a direct and an indirect effect on HIV testing, through HIV/AIDS knowledge. **Discussion:** Theoretical and practical implications for HIV prevention are discussed.

The family organization of a chronically ill child: A qualitative study

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A child's chronic illness is a complex and difficult experience for the whole family. Previous research focused on the impact of this illness on the family. We explored the family organization as a constituent aspect of the child's illness progression. To this aim we collected data from 20 families of a child in care at a hospice in northern Italy. We conducted semi-structured interviews with 33 parents, examined the medical records of their chronically ill children, and interviewed physicians, nurses, and psychologists who cared for the child. Data analysis was based on the grounded theory approach, and families were grouped on the basis of their illness experience: acceptance, denial, focus on illness, and rejection. We observed that different illness progressions corresponded to these different ways with which families experienced the illness. Interventions should involve the whole family and take into account their role in the construction of illness trajectories.

Examining psychosocial adjustment to lower limb amputation from a self-regulation perspective: A multilevel modelling approach

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Background: The aim of this study was to examine the influence of goal pursuit and goal adjustment on changes in positive affect and general adjustment among individuals with lower limb amputations (LLA). **Methods:** Participants completed the Tenacious Goal Pursuit/Flexible Goal Adjustment (TGP/FGA) Scales, Positive and Negative Affect Scales (PANAS), and psychosocial adjustment subscale of the Trinity Amputation and Prosthesis Experience Scales-Revised (TAPES-R) on admission to an inpatient rehabilitation programme, and at 6 weeks, 6 months, and 15 months post-discharge. Data of 98 individuals with LLA were analysed. **Findings:** Multi-level models indicated that increases in TGP were associated with increases in positive affect, while increases in FGA were associated with increases in general adjustment. **Discussion:** Using goal pursuit and goal adjustment as adaptive self-regulatory mechanisms appears to enhance positive psychosocial outcomes among individuals with LLA. TGP and FGA represent important targets for interventions to promote long-term adjustment in this patient group.

At first I was afraid: Disgust and embarrassment cause sexual health avoidance among some people

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Background: Delays and avoidance are common in healthcare but remain poorly understood. Emotions are cross-sectionally implicated but causality is unclear. The current study tested whether disgust and embarrassment cause delay and avoidance in decision-making and for whom. **Methods:** Ninety participants, aged 18-30, completed questionnaires assessing demographics, current health, and past health behaviors. Participants were gender block randomized to disgust,

embarrassment, or control conditions to complete decision-making sexual healthcare vignettes. **Findings:** Despite complexities in the manipulation, disgust and embarrassment caused delay and avoidance, but only among specific groups. Embarrassment caused help-seeking delays for embarrassment elicitors while disgust predicted delays involving disgust elicitors. However, embarrassment only caused delays among those reporting multiple sexual partners and disgust only predicted delay among persons reporting poorer health. **Discussion:** Embarrassment and disgust cause delays in sexual healthcare at least for some people. Incorporating emotions frameworks into efforts to reduce sexual healthcare delay may be beneficial.

The biopsychosocial model and quality of life deficits in people with iatrogenic Hepatitis C infection.

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Hepatitis C infection compromises quality of life, a comparison of health and lifestyle in a cohort with iatrogenic Hepatitis C and the general population set out to examine why?. A self-administered postal questionnaire was used for the hepatitis C cohort, with most questions being similar to those in a national population survey. Data from an age- and sex-matched sample of the national survey were used for comparison. When compared to the general population, the Hepatitis C cohort (n=720) were more likely to experience depression, rate their health as poor and report lower levels of emotional well-being and vitality. Furthermore, there was little difference in the quality of life between current RNA positive respondents and those who never developed chronic infection. People with iatrogenic hepatitis C infection experience deficits in quality of life compared to the general population. The poor perception of health maybe explained within a biopsychosocial model of health.

Aging outside or inside the state pension system: Psychosocial resources for positive aging in middle-aged Germans

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Nowadays demographic and economic changes affect the health and pension system, leaving people unprotected from illness and poverty in old age. The present study represents preliminary results of a larger ongoing research. Applying a mixed methods approach, it aims to identify resources that help middle-aged people become proactive in preparing for old age in an insecure social context. Semi-structured interviews were conducted with middle-aged people, with and without pension insurance and experts working for insurance and health sectors. Thematic analysis revealed self-efficacy, positive images of aging, planning, social networks and relations as resources for positive aging. These were further tested in a German representative sample (N=2072, 50,6% women, 49,4% men) aged 40-54. Hierarchical regression analysis showed social networks and positive images of aging as best predictors of health and positive emotions in both men and women. Findings can be used to develop an assets-mapping instrument, behaviour change interventions and policy.

Explaining differences in socio-economic status and intention to smoke among primary school children

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Background: This cross-sectional study explores whether cognitive or social environmental factors can explain the difference in intention to smoke between high and low socio-economic status (SES) children. **Methods:** Dutch primary school children (n= 2,612) completed a web-based questionnaire about their attitude, perceived subjective norm, self-efficacy expectations, modeling and intention toward smoking. Multiple mediation models were run using the joint significance test to identify the factors that mediate the association between SES and intention of smoking. **Findings:** Modeling mediated the association between SES (B= -0,09 (p< 0,01)) and intention to smoke (B= 1,06 (p< 0,01)). Smoking behavior of the parents and other family members were most influential. Analyses stratified by gender showed that girls' intention to start smoking was mediated through modeling whereas boys were most influenced through the opinions of their best friends. **Discussion:** This study shows that particularly factors in the social environment explain SES differences in smoking intention among children.

Different resilience resources moderate disease impact on dialysis patients' quality of life across cultures

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Resilience resources such as optimism, self-esteem, and perceived control are important predictors of outcomes in a range of chronic diseases. Their impact on the relationship between perceived disease severity and subjective health-related quality of life (HRQOL) was examined in a cross-sectional study with 144 Australian and 272 Taiwanese in-centre haemodialysis patients. Multiple regression analyses revealed no direct effect of resilience resources on physical health in the Australian sample. Optimism and self-esteem were found to moderate the impact of disease burden on physical health. In the Taiwanese sample, self-esteem and perceived control moderated the relationship between disease symptoms on a particular domain of physical health: bodily pain. This pattern of findings suggests that the moderating effect of each resilience resource varies across the two samples. The observed differences could be attributed to culture or healthcare-related factors. Future research should address cultural differences and design treatments sensitive to patients' resilience resources.

Perceptions of social support, quality of life and self-image related to adolescents' smoking behavior

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Our goal is to analyze the differences in adolescent's smoking behavior related to the perceived social support, self-appreciation of quality of life and the amount of time spent with

peer. The instruments were: the questionnaire based on the HBSC survey containing healthy lifestyle and social context's items (Aszmann 2002), Rosenberg Self-esteem Scale and SWLS (Diener 1985). Participants were 447 students from Romanian high schools, aged between 17-18 years (mean age 17.4 years) from XI-XII degree classes. Our results showed that hard smokers spent a significantly greater amount of time with friends, but they perceive a relevantly inferior level of social support from family, lower health status and quality of life. Frequent smokers proved unfavorable school attitude, lack of satisfaction with their physical constitution and lower perceived level of support from teachers. We discussed the results' usefulness in designing health prevention programs centered on smoking cessation and health behavior improvement.

Social support and desire for help in men with cancer: The mediating role of distress

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Background: Objectives were to examine relationships between social support, distress, lifestyle behaviours and desire for help, in men with cancer. **Methods:** A cross-sectional research study recruited men aged 18 and over with any cancer diagnosis (N = 127) through the health service and cancer charities. The questionnaire assessed social support (Social Provisions Scale), distress (Hospital Anxiety and Depression Scale and Distress Thermometer), health behaviours - smoking, alcohol, diet, exercise - and desire for support. **Findings:** Men reporting lower social support experienced higher distress, leading to a greater desire for help to improve lifestyle. Latent variable path analysis modelling confirmed that distress mediated the relationship between social support and desire for help for these issues. **Discussion:** Those with higher distress coupled with lower levels of support may be more willing to seek help. Those engaging in risky health behaviours may require more targeted interventions to motivate them and reduce service-related barriers.

Cardiac patients who completed a longitudinal psychosocial study had a different clinical and psychosocial baseline profile than patients who dropped out prematurely

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Background: Little is known about potential systematic differences between coronary artery disease (CAD) patients who complete a psychosocial study and those who drop out prematurely. **Methods:** We studied 1132 consecutive patients undergoing percutaneous coronary intervention (PCI). All patients completed the Hospital Anxiety and Depression Scale (HADS) to assess anxiety and depression, and the Type D Scale (DS14) to assess Type D personality. A total of 802 (70.8%) patients ('completers') completed both questionnaires at 12 month follow-up, whereas the remaining 330 ('drop-outs') did not. **Findings:** Drop-outs were younger, more often smokers, and they were less often being prescribed cardiovascular medications, as compared with completers. In addition, drop-outs more often had depression, anxiety, and negative affectivity, as compared with completers (all p-values <.05). After a median follow-up of 4 years, there were no

significant differences in mortality (adjusted HR=1.45; 95%CI [.89-2.34]). **Discussion:** A possible attrition bias occurred, as there were systematic differences in baseline characteristics and psychological risk factors between completers and drop-outs. Future prospective studies, using serial assessments of patient-reported outcomes, should pay attention to this phenomenon.

Emotional vulnerability in Inflammatory Bowel Disease (IBD) and Irritable bowel syndrome (IBS)

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Background: Inflammatory Bowel Disease (ulcerative colitis, Crohn disease) and Irritable Bowel Syndrome (IBS) are chronic illnesses related to stress. We investigated their psychophysiological specificity in order to develop appropriate treatment. **Methods:** 27 Crohn, 19 ulcerative colitis, 30 IBS patients and 27 controls filled psychological questionnaires measuring affectivity (state-anxiety, depressive symptomatology, alexithymia, empathy, somatosensory amplification). Physiological variables (heart rate variability and blood cortisol) were undertaken at rest. **Findings:** Differences were observed for state-anxiety ($F(3, 96)=7.0244, p=.00025$), depressive symptomatology ($F(3,96)=11.251, p=.00000$) with IBS patients scoring higher on these variables. The groups differed for alexithymia, empathy (subscale: personal distress) and somatosensory amplification with Crohn patients expressing higher scores on these variables. Groups differed for parasympathetic tone ($F(3, 93)=3.044, p=.03$) and blood cortisol ($F(3, 95)=2.633, p=.05$) where Crohn patients had the lowest parasympathetic tone and the highest blood cortisol. **Discussion:** These results highlight emotion vulnerability in these illnesses and provide good leads for further research.

Centralized, patient preference-based treatment for patients with acute coronary syndrome depression: CODIACS Vanguard RCT

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Background: Controversy remains about whether depression can be successfully managed after acute coronary syndrome (ACS). **Methods:** We performed a multicenter randomized controlled trial with 150 patients with depressive symptoms (Beck Depression Inventory [BDI] score >10) after an ACS. Patients were randomized to 6 months of centralized depression care (active treatment group; n=73) or to locally determined depression care after physician notification (usual care group; n=77). **Results:** Depressive symptoms decreased significantly more in the active treatment group than in the usual care group (differential change between groups, -3.5 BDI points; 95% CI, -6.1 to -0.7; $P = .01$). Overall health care estimated costs were not significantly different (difference adjusting for confounding, -\$325; 95% CI, -\$2639 to \$1989; $P=.78$). **Conclusions:** This kind of depression care is feasible, effective, and may be cost-neutral within 6 months; therefore, it should be tested in a large phase 3 pragmatic trial. Trial Registration: clinicaltrials.gov Identifier: NCT01032018

Disadvantaged black South African women's barriers and facilitators to cervical screening adherence

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Background. Cervical cancer is the second most common cancer among South African women, and Black African women have the highest risk. Unfortunately, the majority do not adhere to recommended regular cervical screening. This research explored the perceptions, experiences and knowledge of cervical screening amongst currently disadvantaged women residing in two South African peri-urban settlements. **Method.** The Health Belief Model (HBM) provided a theoretical framework. Four focus groups, with women between the ages of 21 and 53 years, were conducted. Data was analysed using thematic analysis. **Results.** The analysis revealed knowledge, time, age, health education, stigmatisation, and fear were identified as barriers to screening. Physical symptoms, symptom relief, HIV status, and health status were identified as facilitators of cervical screening adherence. **Conclusion.** This study identified several factors which are crucial for improving adherence and have the potential to inform healthcare policy and services in South Africa, particularly amongst underserved populations.

Effect of psychological factors variations throughout pregnancy on childbirth issues

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Background: Prenatal stress is associated with various obstetric complications (Roesch et al. 2004; Glynn et al. 2008). In addition, physical and hormonal changes alter her stress throughout her pregnancy. Therefore, changes into the prenatal stress model should be observable at different times of pregnancy and would affect pregnancy outcomes. **Method:** Women were recruited before the 10th weeks of pregnancy and were requested to complete trait-state anxiety (STAI-Y), perceived stress (PSS), perceived social support (QSSP), and coping (WCC) questionnaires at T0, T1 (5th month) and T2 (9th month). A multinomial-logit model was performed to determine the best model of prenatal stress outcomes on obstetric complications. **Results:** Among 167 women, 14,37% (n=24) had obstetric complications. Different perceptual factors have variations depending on personal factors including parity and BMI. The best explicative model, AIC = 214,11, LRT = - 44,19, $p < 0,05$, concerns primiparous whose perceived stress increased between T0 and T1, which used more emotional coping strategy between T1 and T2 and whose perceived social support decreased between T1 and T2. **Conclusions:** These results show that perceptual factors present in the first pregnancy trimester affect birth outcomes. This suggests that the psychological support should occur earlier in pregnancy.

Effects of a multidisciplinary pain treatment for chronic low back pain patients

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Background: The objective was to assess the effect of a multidisciplinary pain treatment on pain, fatigue, Quality of Life (QOL) and behavioral coping strategies in chronic low back pain

(CLBP) patients. **Methods:** 123 CLBP patients followed a multidisciplinary treatment of eight weeks; 107 patients were on a waiting list. Treatment primarily focused on the use of more adaptive behavioral coping strategies and a better balance in daily activities. Patients filled out self-report questionnaires with respect to pain, fatigue, QOL and behavioral coping strategies before (T1) and after treatment (T2). **Findings:** At T2, the intervention group reported significantly less pain, less fatigue, better Physical QOL, less endurance behavior and less all-or-nothing behaviour than the control group. No differences were found for Mental QOL and avoidance behavior. **Discussion:** A multidisciplinary pain treatment focusing on behaviour leads to decreases in the use of maladaptive coping strategies and has beneficial effects on pain-related outcomes.

Gender as moderator in the relationship between coping strategies and quality of life

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Quality of life (QoL) is a multidimensional concept that concerns physical and psychological health, social relationships, and environment. Coping strategies play a key role in fostering QoL. If research has investigated gender differences in QoL, to our knowledge no study has tested the effect of gender as a moderator in the relationship between coping strategies and QoL's dimensions. Investigating such effect was the aim of this study. 600 Italian adults (56% females, mean age = 42.73, sd = 13.02) were recruited. Data were gathered by a self-reported questionnaire including: WHO QoL brief Scale; COPE Inventory – short version (Carver, 1997); a socio-demographic section. Results showed that the effects of self-blame, humor and support on QoL are moderated by gender, whereas the other strategies play a significant role, regardless gender's participant. The gender perspective allows to address intervention considering the different ways that men and women have to deal with the health.

Stress, coping and addictive drug use among college students

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The use of substances and addictive behaviors among college students have been considered as a way of coping with the stressful conditions the students have to face. When considering the different forms of addiction among students, addiction to drugs has sometimes been identified but its relations with stress and coping remain unspecified. Then, this paper aims at testing the relations between stress and coping when predicting drug addiction among college students. One hundred and forty eight freshmen students participated in the study, completed questionnaires assessing stress, coping, and addiction to drug use. When trying to predict the intensity of drug addiction with stress and coping, regression analyses indicate a mediation effect of coping strategies on perceived stress. This result is discussed in order to precise the role of stress and coping for maladjusted students and to determine the specificity of addiction to drug in comparison to other addictions.

Changes in illness perceptions among carers of oesophageal cancer survivors predict changes in psychological distress

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Background: This study aimed to examine the extent to which changes in the illness perceptions of the carers of oesophageal cancer survivors explain changes in their levels of psychological distress relative to demographic and biomedical variables and coping strategies. **Methods:** Carers of oesophageal cancer survivors were mailed a questionnaire booklet twice (with a 12 month interval) containing questions about medical and demographic variables, the Illness Perception Questionnaire-Revised, the Cancer Coping Questionnaire and the Hospital Anxiety and Depression Scale. A total of 198 carers responded at both time points. **Findings:** Cluster analysis was used to identify groups of respondents who reported a similar profile of change in their illness perception scores over time. Regression models explained 22% of the variance in change in anxiety scores. **Discussion:** Enhancing control cognitions and encouraging a positive focus coping strategy may be important in improving the psychological wellbeing of carers of oesophageal cancer survivors.

The effects of repeated exposure to graphic fear appeals in smoker subgroups

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Objectives. Experimental studies on the effects of graphic fear appeals in smoking tobacco typically expose smokers in a single session, although in practice the exposure is always repeated. This study applied an improved study design. **Methods.** In this field-experiment, 118 smokers were randomly assigned to one of two conditions: 1) They were asked to stick graphic fear appeals on their cigarette packages for three weeks or; 2) not to change their packages, meaning that they were exposed to the default textual warnings. Disengagement beliefs was tested as a moderator. **Results.** Three weeks of exposure to the graphic fear appeals led to a stronger intention to quit and more self-reports of having cut-down on smoking, but only when smokers scored low on pretest disengagement beliefs. **Conclusions.** The effects of graphic fear appeals depended on smokers' characteristics. The moderators may explain the mixed findings in the literature.

Beyond medication beliefs: A comparative NIRT analysis of patients' beliefs on four back pain treatments

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Patients' treatment perceptions are known to influence health behaviours and outcomes. Research has focused on medication beliefs, however patients are often offered multiple treatments. For low back pain (LBP), current NICE guidelines recommend medication, exercise, manual therapy, and acupuncture. We report a comparative examination of the belief structure for these four

treatments. A cross-sectional survey of 439 LBP patients inquired about treatment beliefs via equivalent items measuring 4 dimensions identified as relevant in qualitative work: credibility, effectiveness, risks and suitability. We analysed responses via non-parametric item response theory (Mokken R). The medication beliefs items showed lower homogeneity ($H=.42$), and risk emerged as separate dimension at lower bounds (AISP, $c=.40$), in comparison to acupuncture, exercise, and manual therapy beliefs ($H=.50$, $.56$, and $.60$; $c=.55$, $.60$, and $.70$). The risk-benefit distinction appears more salient for LBP medication than for other treatments. Investigating treatment-specific dimensionality may inform tailoring of decision-making in clinical practice.

Influencing inhaled corticosteroid use in asthmatic adults: Systematic review of adherence determinants studies

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Non-adherence to inhaled asthma treatment is common. Interventions to improve adherence to inhaled corticosteroids in asthmatic adults would benefit from a detailed mapping of modifiable determinants and set constraints. We conducted a systematic literature search of observational studies on adherence determinants following recommended procedures. Two coders selected studies, performed data extraction and coded study quality. Forty studies investigated determinants in four domains: background (demographics, physical and psychological status, health behaviours), health care (prior and current treatment and organizational factors), individual (knowledge and beliefs, attitude and affect, skills and self-efficacy), and interpersonal factors (patient-provider relationship, social support). However, multiple methodological limitations present in most studies precluded the consolidation of knowledge regarding the strength and direction of causality of the relationships reported. Progress in this research area would be enhanced by a more theory-based and psychometrically-sound approach to construct definition and measurement, and a focus on longitudinal designs.

Performance feedback to healthcare professionals: What supports behaviour change?

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Research suggests that feedback on performance to healthcare professionals generally has a small to moderate effect on behaviour. Clinical units would benefit from understanding which characteristics of feedback support optimal use for service improvement. This qualitative study investigated perceptions of end-users on a feedback initiative in the Anaesthetics Department of a UK Academic Health Science Centre. 21 interviews were conducted with Consultant Anaesthetists and Post Anaesthetic Care Unit nurses. Interviews were semi-structured and transcripts analysed using constant-comparative methods in which psychological models were used to inform interpretation. Key findings were associated with the perceived ease of effectively translating 'data' into 'information' and 'information' into 'behaviour'. Participants also highlighted the need to draw a cognitive distinction between the perceived consequences of using feedback for improvement at the individual level, and for performance management at the departmental level. Theory of Planned Behaviour accounted well for the main categories emerging from the analysis.

Physical activity and weight loss: The role of eating styles

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Background: Current research shows that an increase in physical activity does not necessarily lead to weight loss. Eating styles might influence the effectiveness of physical activity as a method of weight management. **Methods:** Data for this study come from the second wave (2011) of the Swiss Food Panel, a population-based longitudinal study. Participants who were highly active and of normal weight were compared to participants who were highly active, but overweight (N=1,271). Food frequencies and eating styles, as assessed by the Dutch Eating Behaviour Questionnaire, were analysed. **Findings:** Compared to highly active, overweight individuals, highly active individuals with normal weights had lower scores for emotional and external eating, and ate more fruits and vegetables. No differences were found in the consumption of convenience foods or sweets and savouries. **Discussion:** Greater emotional and external eating seems related to a risk of becoming overweight, even if individuals are highly active.

Stroke 'Act FAST' campaign, remembered but not understood? Experimental evidence from a population-based survey

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Background: The stroke awareness raising campaign 'Act FAST' has been rolled out in multiple waves in England, but impact on response to stroke symptoms remains unclear. **Methods:** Population-based survey randomising individuals to receive a questionnaire and 'Act FAST' leaflet (n=2500), or a questionnaire only (n=2500). Campaign retention and stroke response measured through 16 scenario-based vignettes was assessed. **Findings:** Questionnaire return rate was 32.1% (n=1605), no differences between the two groups on return rate or demographics emerged. Participants receiving a leaflet showed better campaign recall (75.7% vs. 68.2%, p=.003) and recalled more FAST mnemonic elements (2.6/4 vs. 1.8/4, p<.001). However, there were no between-group differences on stroke response on any stroke-based scenario measures (ps>.05). Stroke responses overall were poor and varied across scenarios. **Discussion:** Despite the immediacy of the leaflet-based intervention and increased levels of recall of specific 'Act FAST' elements there was little impact on stroke response measures.

Could infertility-related stress and anxiety of both partners influence the success of infertility treatments?

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Background. The aim of this study was to investigate the link between both partners' state-anxiety, infertility-related stress, and the fertility treatment outcome, controlling moderating factors

(such as the ovarian response) during an In Vitro Fertilization (IVF) treatment. **Methods.** Fertility Problem Inventory (FPI) and State Scale of Trait-Trait Anxiety Inventory (STAI) were administered to 408 couples (816 patients) about to begin an IVF treatment at the ANDROS Reproductive Medicine Unit in Palermo, Italy, from March 2009 to December 2011. **Findings.** The clinical pregnancy rate was 38.4%. Logistic regression showed that the model was significant ($X^2 = 13.4$, $p < 0.05$). Female variables explained the 11.5% of the variance, and the duration of infertility was the only significant predictor ($\beta = -.25$, $p < 0.01$). The addition of male variables did not improve the model ($X^2 = 13.9$). **Discussion.** Mental health professionals should take into account this findings, to better address their psychological intervention for couples suffering from infertility.

Systematic review and individual patient data meta-analysis of sex differences in depression and prognosis in persons with myocardial infarction: A MINDMAPS study

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Background: We investigated sex differences post-myocardial infarction (MI) in the prevalence of depression, and the impact of depression on prognosis. **Methods.** Meta-analysis of individual patient data (IPD) from 16 prospective studies ($n = 10,175$ patients). **Findings.** 50% (1484/2975) of women and 36% (2559/7200) of men reported elevated depression levels (diagnostic interview or questionnaire; $OR = 0.64$, 95% CI 0.58–0.70). The risk for all-cause mortality associated with depression was higher in men ($HR = 1.38$, 95% CI 1.30–1.47) than in women ($HR = 1.22$, 95% CI 1.14–1.31). Low left ventricular ejection fraction (LVEF) was associated with elevated depression in men only (sex*LVEF interaction $B = 0.294$, 95% CI 0.090–0.498), which attenuated the sex difference in the association between depression and prognosis. **Discussion.** The prevalence of depression post-MI was higher in women than men, but the depression-prognosis association was worse for men. Depression in men post-MI may in part reflect cardiovascular disease severity.

Sexual health intervention for sexually active female rectal and anal cancer survivors: Preliminary findings

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Background: The Cancer Survivorship Intervention–Sexual Health (CSI-SH) was designed for female rectal and anal cancer (RAC) survivors and aims to improve their sexual health and quality of life (QoL). **Methods:** We report preliminary outcomes for a subgroup of sexually-active participants from the parent CSI-SH study. CSI-SH participants received four psycho-educational sessions, primarily by phone, followed by booster telephone sessions. Assessments were at baseline, about 4 and 8-months post-baseline and indexed QOL (EORTC-QLQ-C30), Sexual Functioning (FSFI) and psychological well-being (IES-R). **Findings:** Women averaged 54 years, were

predominantly Caucasian (85%), married (68%) and a median of four years post treatment. On the primary outcome, FSFI total score initially improved by 5.17 (CSI-SH) versus -1.96 (Usual Care (UC)) ($p < 0.01$, $d = 1.13$) and overall improved by 3.96 (CSI-SH) versus -2.13 (UC) ($p < 0.05$, $d = 0.82$). CSI-SH participants also reported gains in QOL and psychological well-being. **Discussion:** A brief psycho-educational intervention may improve QoL in sexually-active RAC survivors. Funding: National Cancer Institute, Grants. 5R21 CA129195-02 and T32CA009461-28

Predicting condom use in South Africa: A test of two integrative models

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Many theoretical models are used to predict behavior, but few studies exist that empirically test multiple models under similar circumstances. This study tested the Information-Motivation-Behavioral Skills model (IMB) and the I-Change model (ICM), to assess their motivational pathways for the prediction of condom use during last sexual intercourse. Students ($N = 1066$) from Cape Town, South Africa, filled out questionnaires at three different time points. Structural equation modeling demonstrated that self-efficacy did not predict behavior directly but indirectly via intention. Knowledge of how to use a condom and how STI's are transmitted directly predicted behavior when modeled as hypothesized by the IMB model, but indirectly when the factors attitude, subjective norms and self-efficacy were included as mediators, as hypothesized by the ICM. It is concluded that the ICM and IMB are similar in terms of model fit and explained variance, but that the ICM had a higher proportion of significant pathways.

Pain acceptance change processes in the context of the motivational model of pain self-management

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Background: Pain acceptance is a complex construct that is associated with improved outcomes in chronic pain. This study examined changes in pain acceptance within the framework of the Motivational Model of Pain Self-management, in which motivational changes precede and influence volitional/behavioural changes. **Methods:** 70 people with chronic haemophilia-related joint pain completed measures of readiness to self-manage pain, pain coping and pain acceptance at three time points over 12 months during a low intensity self-management intervention. Changes in pain acceptance (activity engagement and pain willingness) were tested as motivational and volitional/behavioural processes in longitudinal, cross-lagged regression analyses. **Findings:** Motivational changes (readiness to self-manage) predicted subsequent changes in activity engagement, and changes in activity engagement predicted subsequent changes in pain willingness, independently of other factors. **Discussion:** The findings provide insights into sequential change processes that inform pain acceptance theory and inform the design and delivery of acceptance-based interventions to improve pain self-management.

Development of a theory- and empirically-based health behaviour intervention for new university students

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Background: In order to maximise the effect of a health behaviour intervention for new university students, extensive formative research was conducted to construct theoretically- and empirically-based health messages. **Methods/Design:** Three questionnaire studies were conducted with prospective/new undergraduates to identify the key behavioral, normative and control beliefs (from the theory of planned behaviour) associated with fruit and vegetable intake. Parallel studies were also conducted for binge drinking, smoking and exercise. **Results:** Study 1 (N=21) elicited eight modal salient beliefs associated with fruit and vegetable intake. Study 2 (N=702) examined correlations between these beliefs and intentions two weeks before university and behaviour at university (at one-month). Study 3 (N=117) developed supporting messages for six belief correlates based on students' reasons for the beliefs. **Discussion:** This novel approach enables the development of health messages that have a strong theoretical and empirical base, and also ensures the relevance of the health messages.

The enabling effect of social support on vaccination via self-efficacy

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Background: In the context of a worksite influenza vaccination program, social support, action planning, and perceived self-efficacy were examined as predictors of participation. Mechanisms among these predictors were analyzed applying the enabling effect model to vaccination. Moreover, this model was extended by the inclusion of planning. **Methods:** In a large company in Germany two assessments took place, five months apart. N=203 employees participated. Using regression procedures, a sequential mediation model was examined, leading from social support via self-efficacy and planning to behavior. **Findings:** The three predictors accounted jointly for 47% of the vaccination participation variance. The enabling effect model was replicated, highlighting how social support may promote self-efficacy beliefs. Further analysis confirmed the extended model, revealing planning as a mediator between self-efficacy and subsequent behavior while the indirect path from social support via self-efficacy to behavior remained. **Discussion:** Multiple step mediation analysis underscored the relevance of social support and self-efficacy and revealed planning as a proximal factor that may facilitate participation in a worksite influenza vaccination program.

Perceived steepness; a contextual cue that deters increased stair climbing

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Background. Increased stair climbing during daily living, a current public health goal, is avoided more by women, the old and the overweight than their comparators. Three studies tests perceived

steepness as the cue that promotes avoidance. **Methods.** Participants judged the steepness of stairs in a train station (n=269), a shopping centre (n=249) and a public square (n=734). Sex, age, height and weight were recorded. In the shopping centre and square, stratified samples of pedestrians were recruited from those who chose the stairs and those who avoided them. **Findings.** In the station, stairs appeared steeper for women, older participants and the overweight. Pedestrians who avoided stair climbing reported the stairs as steeper both after they had chosen the escalator (shopping centre) and before the choice was made (square), even when demographic differences were controlled. **Discussion.** Perceived steepness is a contextual cue that pedestrians use to avoid resource depletion by stair climbing.

Good sleep and exhausting work: Efforts, burnout and insomnia in nursing profession

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Background: Prolonged shifts are weariness for nurses and night shifts leads to dysregulation of circadian rhythm. Rewards may protect against negative consequents at work. The aim of the study was to assess the relationship between occupational efforts, rewards and burnout on sleep difficulties among nurses. **Methods.** 247 nurses working on the 12-hour day-night shifts filled out following questionnaires: Effort Rewards Imbalance (Siegrist et al., 2004), Maslach Burnout Inventory (Maslach, 1996) and Athens Insomnia Scale (Soldatos et al., 2003). **Results.** Insomnia was explained by exhaustion, efforts and job insecurity ($R^2 = .26$). Indirect effect exhaustion on the relationship between effort and sleep difficulties and job insecurity and insomnia were observed. Esteem and job promotion were not related to burnout and sleep difficulties. Conclusion. The results have confirmed that exhaustion is a key component of burnout related to sleep difficulties in nurses. This is consistent with the view about bidirectional relationship between exhaustion and insomnia.

Can we detect vulnerable individuals facing end-of-life and death of their spouse after cancer? Results of a longitudinal study pre- and post-death

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Little is known regarding the display of grief reactions well in advance of death, and spread in long-term. This study aims at filling this gap of knowledge. In a cohort of spouses of palliative cancer patients (N =60), we study at T1 (1-6 months before death) predictors of socio-emotional adjustment at T2 (6-9 months after death). Attachment styles and strategies of coping are used to predict: depression, grief reactions, Post-Traumatic Growth, and social adjustment. We found three core bereavement patterns in 60 participants as evidenced in follow-up (40 men, m=63.4yrs). Recovery was evidenced in 32.1% of the participants, with decreasing symptomatology, whereas 53.6% experienced increasing symptoms of distress. 14.3% reported stable impairment persistence. Negative adjustment at follow-up is predicted by: anxious attachment, confrontation with loss. The data suggest that vulnerable spouses of cancer patients could effectively benefit from an early support program targeting coping styles in grief reactions.

Tronto's care model to understand nurses' self perception of their health condition

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Semi-structured interviews conducted with 16 nurses explore the blurred borders between health perceptions and professional behaviour. Using Grounded Theory, results from a thematic content analysis evidence that participants analyse their body symptoms by taking into account not only subjective theories of health and objective diagnosis of biomedical symptoms, but also additional components embedded on Tronto's theoretical model of care. Their decision-making process is related to caring about their colleagues, but with less concern for their own health condition. Due to feeling indispensable and responsible for the quality of care at their workplace, the nurses behave in such a way that they are seemingly fit to act at minima or at least not hindering or causing problems to the team's workload and care of patients. This presentation will demonstrate how this ethical position may help in understanding incomprehensible health behaviour of nurses.

Implicit and reflective predictors of food choices: A dual process model approach

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This study aimed to explore the relative role of implicit and reflective measures in predicting food choices. 138 adolescents aged 12-13years completed a questionnaire measuring implicit measures (temptation, access to cues and prototypes) and reflective measures (perceived behaviour control (PBC) and intention) for consuming fruit/vegetables(FV) and sweet/savoury(SS) snacks. The food choice was assessed through a Behavioural Choice Task. On step 1, reflective measures explained 22% of the variance in food choices (intention for FV and SS and PBC for FV were significant). On step 2, implicit measures accounted for an additional 13% of the variance, with temptation of FV and SS significantly adding to the prediction. Temptation fully mediated the predictive effect of intention and PBC was the only reflective variable that remained significant. On this age range a dual process approach provides a better understanding of food choices than a simple reflective model. Implications for research and practice will be discussed.

Risk perception of heart disease in healthy people: Which variables influence judgments?

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Background: Communication of personal risk information has been found to have only a small effect on health behaviour. The present study intended to help clarify how healthy individuals make judgments about risk for heart disease, investigating the influence of variables both of

hypothetical scenarios and of participants' own characteristics. **Methods:** 638 adults responded to vignettes describing risk scenarios. For each vignette a 2 x 3 x 2 x 2 between-subjects design varied according to sex, age, family history and smoking. A Linear Mixed Model was used to analyse the data in two levels. **Findings:** The differences between vignettes explained 40% of the variance of risk perceptions. There were significant main effects of the participants' characteristics for risk perception judgments. **Discussion:** The way people make health risk assessments seems to be influenced by a combination of variables of different levels, with implications for the perceived necessity of altering risk-related behaviours.

Psychosocial predictors of breast cancer survivors' supportive care needs at the end of radiotherapy

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Background: The end of radiotherapy is a transitional moment between active treatment and surveillance that warrants the reassessment of supportive care needs and the psychosocial factors that influence these needs. **Method:** 373 (89% response rate) breast cancer patients completed questionnaires assessing supportive care needs (SCNS-SF34), distress (HADS), attachment style (ECR), self-esteem (RSES), social support (SSQ) and satisfaction with care (PATSAT) during the last week of radiotherapy treatment. **Findings:** Mean age was 54.7(12.5), 55.3% were married, 20.7% had a mastectomy, 44% received chemotherapy. Health system and information (42.8%) and psychological (40.42%) needs were most prevalent, most reported "things you can do to get well" (54.43%). Preliminary analyses showed that 52% score variance of total needs were explained by younger age, greater distress, insecure attachment, lower self-esteem, low social support and dissatisfaction with care (all $p < .01$). **Discussion:** Results identify concerns requiring attention and those women likely to experience needs post-treatment, guiding care management.

"That is a blood disease somehow" – Russian-speaking migrants' hepatitis-related concepts and practices in Germany

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Background: Hepatitis C is a serious infectious disease which is frequent among intravenous drug users. An often very risky drug-consumption makes migrants from Russian speaking countries prone to hepatitis. Our study asks what migrants know about this disease, its transmission and treatments? Do they have access to adequate treatment? **Methods:** We interviewed about 30 migrants in episodic interviews about their addiction and hepatitis related illness experience and practices and about their experiences with professional help. Thematic coding was applied to the material for categorising it in a case sensitive and a typifying comparison. **Findings:** The interviewed migrants differ in their perception of the threat of hepatitis and in how they deal with this risk or an already existing hepatitis. Only few of the interviewees have the necessary resources for an active coping with the disease. **Discussion:** The target group's hepatitis-related awareness of the disease is very limited.

The influence of residential facilities' environmental features on elderly attitudes: An experimental study

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This experimental study aims at analyzing the effects of architectural and recreational features of residential facilities for the elderly on psycho-social dimensions, such as attitudes toward a relocation, psychological well-being, residential satisfaction, and feelings of broken home attachment. Participants (N=192 over-65 individuals) were randomly assigned to different conditions (including the exposition to scenarios composed by both visual and verbal stimuli) in an experimental between-subjects design, 3 (architectural style: home-like vs. hotel-like vs. usual-standard) X 2 (green areas in external spaces: presence vs. absence) X 2 (recreational activities: presence vs. absence). The task of respondents was to fill in a questionnaire including a set of measures. Main findings showed a significant preference both for home-like traditional residences and for the presence of green areas surrounding the residences. These outcomes provide empirical support to the importance of design quality for fostering health and wellbeing in the elderly population.

Which behaviour change techniques are most effective at increasing older adults' self-efficacy and physical activity?

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Background: Increasing self-efficacy is an effective mechanism for increasing physical activity, and may be even more important for older people. The aim of this review was to identify behaviour change techniques (BCTs) that increase self-efficacy and physical activity behaviour in older people. **Methods:** A systematic search identified 27 studies reporting self-efficacy towards engaging in physical activity following an intervention in samples of "healthy" community-dwelling adults over 60 years old. Moderator analyses examined whether changes in self-efficacy and physical activity were associated with whether specific BCT's (as defined by CALO-RE taxonomy) were included. **Findings:** Interventions with the BCT "providing instruction on how to perform behaviour" produced higher levels of self-efficacy; six BCTs (including "prompt self-monitoring of behaviour") were associated with lower self-efficacy. Interventions containing five BCTs produced higher levels of physical activity. **Discussion:** Many intervention techniques that are effective for younger adults do not appear to be effective for older adults.

Improving adolescents eating behaviour by changing prototype perceptions: An intervention study based on the Prototype/Willingness-Model

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Background: According to the Prototype/Willingness-Model, health behaviour among adolescents is influenced by intentional as well as social reactive processes. Studies show that influencing

determinants of the social reactive path (i.e. prototype perception) results in behaviour change. With regard to eating behaviour, this has not yet been tested. Thus, our study examined the predictive ability of the full model to explain eating behaviour. Furthermore, we conducted an intervention study (RCT) influencing the perception of different eater prototypes. **Methods:** For model testing, constructs of the PWM were assessed in 356 adolescents and structural equation models were calculated. In order to change prototype perceptions, manipulated study results of different eater images were presented to 223 adolescents. **Results:** The PWM sufficiently explained adolescents eating behaviour; prototype perception had a direct effect. The intervention showed favourable effects on prototype perception and fruit consumption. **Discussion:** Implications for health promotion and future research are discussed.

Resistance toward risk feedback: It's not the valence, it's the target!

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Background: Changing risk perception is a central topic in health interventions. However, inconsistent findings have been reported concerning the impact of absolute or comparative risk information. In the present experiment, both risk information types were manipulated in order to compare their impact on self- and peer-related risk perceptions. **Methods:** In a 2 x 4 experiment, 753 participants received feedback about their own risk that varied on the absolute (high vs. low) and on the comparative level (higher, equal, lower compared to an average peer, no peer information). **Findings:** Comparative risk information triggered a concurrent adaption in peer-related risk perception while self-related risk perception remained stable ($F(3,749) = 12.12, p < .001$). Absolute risk information neither affected peer- nor self-related risk perception. **Discussion:** People are sensitive to risk information but predominantly for others risk while preserving their self-related beliefs even in the face of unexpected good news.

Does psychoeducational program improve adherence, emotional state and quality-of-life in pre dialysis renal patients?

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Background: Lack of adherence, decreased quality-of-life (HRQL) and negative emotional states are a common problem in advanced-chronic-kidney-disease (ACKD). **Methods:** First, a systematic literature review was conducted to synthesize available information on the role that psychological variables have on HRQOL of ACKD. Secondly, an empirical study was conducted with ACKD patients (30 hemodialysis/31 peritoneal dialysis) to observe the relationship between adherence, depression, anxiety, perceived stress, and HRQOL. Finally, an intervention was conducted implementing a CBT psychoeducational program in 42 pre-dialysis patients. Outcomes after intervention were evaluated through adherence, depression, anxiety, HRQOL, and biochemical parameters. **Findings:** Little evidence about interventions promoting adherence, positive feelings and HRQL is current available. Adherence was associated to better Physical Function and lower Bodily Pain. Intervention improved levels of adherence and HRQOL, decreased depression and

anxiety, and biochemical parameters were better controlled. **Discussion:** Psychological variables are important predictors of well-being and health of ACKD patients. Individual psycho-educational intervention was able to improve outcomes in ACKD.

Reflecting on non-reflective action: A think-aloud study of self-report habit measures

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Background. Habit – the tendency to act automatically as a learned response to contextual cues – is a key social cognitive determinant of behaviour and behaviour change. Habit is most commonly measured using the ‘Self-Report Habit Index’ (SRHI), or combinations of self-reported behaviour frequency and context stability (BFCS). Yet, using self-report to capture habit is controversial. Little is known about how people interpret these measures. **Method.** 20 student participants provided narrative commentaries of responses to SRHI and BFCS measures, applied to alcohol consumption, active commuting, and snacking. Verbatim transcripts were analysed using thematic and content analysis. **Findings.** 10% of responses were problematic. Notable problems included participants lacking confidence in reporting automaticity, struggling to recall behaviour or cues, misinterpreting items, and raising impression-management concerns around alcohol habits. **Discussion.** Findings highlight potential difficulties when administering the indices, and question both the sensitivity of the measures and the dominant conceptualisation of habit within health psychology.

Exploring associations between socio-economic status in the healthcare access and quality of life in COPD

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Background: Socioeconomic deprivation is a determinant of health care access and quality of life in many diseases. Our aim was to establish whether socio-economic status (SES) was associated with healthcare access (HCA) and quality of life (QoL) in COPD. **Method:** Cross-sectional, interview-based survey in London with COPD patients. Measures: SES, QoL and HCA. **Findings:** 176 spirometry-confirmed COPD participants, mean age 69 years. Low SES was not associated with worse HCA. For certain outcomes, SES was associated with better HCA (e.g. higher smoking referral with lower income and IMD OR: 1.05; 95%CI: 1.01-1.08; p=0.006 and less frequent spirometry with higher education). Low SES (low income) was associated with poorer QoL (e.g. dyspnea r=0.22; p=0.003, depression r= -0.25; p=0.001). **Discussion:** More deprived COPD patients had HCA at least as good as affluent patients while higher deprivation was associated with poorer QoL. SES measures varied markedly in their relation to HCA and QoL in COPD.

Are illness perceptions and coping predictors of distress in breast cancer over time?

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Background: The present study assessed the impact of illness perceptions and coping within the Self Regulatory Model (Leventhal, 1970; Leventhal, Meyer, & Nerenz, 1980) on distress in women with breast cancer at diagnosis and one year follow-up. **Methods:** Women with breast cancer (N = 65) completed measures of illness perceptions (IPQ-R), coping (Mental Adjustment to Cancer Scale), anxiety, depression (HADS), and cancer-related distress (Impact of Events Scale) at diagnosis and one year later. **Findings:** At diagnosis, illness perceptions accounted for between 7-29% of the variance in distress, but did not account for any of the variance one year later. In contrast, coping predicted 5% of cancer-related distress at diagnosis, and 9% at one year follow-up. **Discussion:** Although illness perceptions are predictors of distress at diagnosis, the influence of coping was sustained over time, suggesting that coping-based interventions to reduce distress may be more beneficial than those focusing on illness perceptions.

Creation and validation of a cognitive appraisal scale – state

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Objectives. Available tools in the literature that assess appraisal are 1) often trait-like measures and 2) incomplete in that they assess only two or three aspects of appraisal. The aim is to present preliminary results of validation of a tool that assesses state appraisals including all aspects of appraisals: Stake/Centrality, Threat, Challenge and Resources (Peacock & Wong, 1990; Roesch & Rowley, 2005). **Methodology.** The state cognitive appraisal scale (CAS-S) consists of 3 open format questions asking for a description of a problematic situation and its consequences, followed by a 24 items scale assessing Stake and Appraisals. **Results.** A first version was given to a sample of students (n=77) that lead to good psychometrics properties except on 2 items of the Resource subscale. A second corrected version (with 5 items per dimension for paucity) was given to a second sample (n=250). Results showed good psychometric properties and coherent inter-dimension relations.

Effects of visuospatial processing and sequence order on images recall of “traumatic scenes”

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Holmes et al. (2009) show that a cognitive task requiring the processing of visuospatial information influences later recall of images of a “traumatic film”. Given these results, our hypothesis was that the order of presentation of the scenes, being more or less emotionally charged, could show a different impact on future intrusions. 130 subjects viewed the potentially traumatic scenes on a video display. For half of the subjects the emotional charge of the scenes increased across the presentation while it decreased for the other half of the participants. In addition, half of the participants were submitted to a visuospatial task. Afterward, subjects carried out a recall task.

Results show tendencies; subjects who did perform visuospatial task showed more intrusions than other. Results indicate that the most emotionally charged scenes are most remembered during the recall task ($t(86) = -1.76$; $p < 0.1$).

Testing the HAPA model as a stage theory using a complete match-mismatch design

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This study examines whether interventions are more effective when targeted at individuals' stage of change, using the HAPA model as its framework. A complete match-mismatch design was used with non-intenders ($n=107$) and intenders ($n=77$) regarding the recommended fruit and vegetable (FV) intake being randomly assigned to three types of health messages (targeted at non-intenders, intenders and control). All variables were assessed through self-report. Results showed that matching the content to the stage of change led to an increase in intention immediately after message exposure and stage progression among non-intenders, and to an increase in action planning, coping planning one week later, with differences in the expected direction, although not significant, for intenders and in FV intake for both stages. These results add converging evidence for the validity of stages in the health behavior change process, although more active interventions for intenders and extended measurement time frames might be required.

Self-affirmation promotes open-minded rejection of challenging health messages

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Self-affirming (e.g. reflecting on important values) facilitates open-minded appraisal of threatening health messages amongst those most at risk, but how does it affect those at low risk who are informed of inadequacies in their behaviour? In an experimental design, adolescents ($N = 125$) completed self-affirmation or control tasks before reading current advice about why and how they should be physically active for at least 60 minutes/ day. The 123 participants not meeting these recommendations were told that this increased their risk of heart disease. Responses to the information were assessed (e.g. perceived risk, self- and response-efficacy). Moderated hierarchical regression analyses revealed that self-affirmation was associated with higher self-efficacy and recall amongst relatively inactive participants, but with lower self- and response-efficacy, acceptance and recall amongst those moderately active. While self-affirmation can be beneficial, caution is needed in its use when it may be rational to be sceptical about needing to change.

ALGA: A computerized profiling tool for cancer patients

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Background: Patient's quality of life and satisfaction with treatment depend not only on clinical factors, but also on her psychological, psychosocial, cognitive and behavioral aspects. **Methods:** To investigate such aspects in breast cancer patients and to compare them with healthy

subjects, we developed the ALGA questionnaire, a computerized tool based on 86 questions, administered to the patient before her first clinical encounter. **Findings:** Compared to healthy subjects, patients showed higher level of perceived fatigue and anxiety and decreased physical abilities. Regarding cognitive aspects, the only difference we found regards risk behaviors: patients affirm they would risk less than healthy subjects. Interestingly, patients showed a higher score in the general self-rated health questions. **Discussion:** Such results confirm ALGA ability to discriminate between healthy people and cancer patients. This makes it a good tool to create a patient's profile that can be used by physicians to empower patient with knowledge about her health condition and to tailor communication and relationship with each specific patient.

How does illness severity influence health satisfaction in patients with cardiovascular disease? The mediating role of illness perception and self-efficacy beliefs

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The importance of psychological factors in improving conditions of cardiovascular disease-CVD patients is stressed by the guidelines for their prevention and rehabilitation, but very little is known on the impact of illness severity on patients' well-being, and on the psychosocial variables that may mediate this association. Aim of this study was to investigate the role of illness representations-IR and self-efficacy beliefs-SE on the relationship between illness severity and health-satisfaction-HS in CVD patients undergoing rehabilitation. Seventy-five patients (80% men; mean age=65.44, SD=10.20) were enrolled. Illness severity was measured in terms of left ventricular ejection fraction-LVEF; psychological factors were assessed at the beginning-T1 and at the end of the rehabilitation-T2. Results from path analyses showed that the relationships among LVEF and HS at T1 and T2 were partially mediated by IR and SE ($X^2(1)=0.21$, $p=n.s.$). Findings underlined the importance of working on IR and SE to improve well-being in CVD patients.

Facing the threat of a diagnosis of prostate cancer. What predicts men's quality of life?

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Background. This study examines predictors of quality of life in a group of men awaiting biopsy and in a group of men recently diagnosed with prostate cancer. **Method.** Men attending a new Rapid Access Prostate Clinic for a biopsy (N=115) and diagnosis (N=89) participated in the study. Psychological variables including stress, self efficacy and mood as well as Quality of Life were assessed by self-report. Medical and demographic data was also gathered. **Findings.** Hierarchical regression analyses demonstrated that for both groups, the set of predictors accounted for 6%-50% of variance on their quality of life with global stress explaining the greatest amount of variance. **Discussion.** Perceived global stress predicted global health, emotional and social functioning in both groups and predicted sexual activity in the diagnosed group. This is an important finding as global stress has rarely been examined in this context. Research and clinical implications are discussed.

How do health behaviours change after cardiac event? Inter-individual differences in intra-individual trajectories

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Objective. The aim of the study is to assess differential effect of cognitive, emotional and behavioural reaction to first acute cardiac syndrome (ACS) on intra-individual change of diet and physical activity after the event. **Methods.** A dietary index and physical activity were evaluated in 150 cardiac patients at three time points: during hospitalisation following an acute cardiac event, one, and six months later. Illness beliefs, current emotional state and coping strategies were also measured at each time point. Results. Latent class growth curve analyses revealed inter-individual differences in intra-individual change of diet and physical activity. For diet, a 2-class model was obtained with depression and problem-focused coping predicting class membership. For physical activity, number of classes depends on its intensity. An initial reaction to ACS was the strongest differentiator of medium activity class membership. **Discussion.** These findings can address new issues in effectiveness of promoting life style changes after ACS.

How social constraints affect general and cancer specific distress among spouses of cancer patients

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Background: Evidence indicates that caregivers/spouses of cancer patients experience high levels of distress. According to the cognitive processing model constraints on expressing emotions are associated with higher levels of distress. The aim was therefore to examine if social constraints from the cancer patients and/or friends were associated with higher levels of distress among caregivers. **Methods:** Caregivers/spouses of prostate cancer patients completed questionnaires assessing general distress (GD), cancer specific distress (CD) and constraints on emotional expression from spouse (CfromS) and friends (CfromF). **Findings:** Univariate analyses showed that both CfromS and CfromF were associated with higher GD and CD (p 's < .05). Lastly, there was a significant interaction between CfromS and CfromF in predicting GD, where CfromF was only a significant predictor for GD for those who experienced high levels of CfromS. **Discussion:** The cognitive processing model may provide useful information for developing interventions to reduce distress among caregivers of cancer patients.

The stability of social desirability among job-seekers with unhealthy alcohol use

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Background: Social desirability has been shown to be stable in samples with high school education. This study investigated the stability of social desirability among a more heterogeneous sample concerning school education. **Methods:** Job-seekers with unhealthy alcohol use ($n=1,243$)

were systematically recruited at three job agencies. Of these, 1,094 participated in at least one of the two follow-ups six and 15 months after baseline and constitute this study's sample. At both follow-ups, the Social-Desirability-Scale-17 was applied. Two latent change models were conducted: model 1 tested the stability of social desirability between both follow-ups, model 2 included possible predictors. **Findings:** Model 1 revealed a significant decrease of social desirability over time ($M=-0.03, p<0.001$). Model 2 revealed education to be a marginal significant predictor of stability ($b=-0.14, p=0.06$). **Discussion:** Social desirability may not be stable for individuals with lower school education, and may have to be considered at all measurement points in longitudinal studies.

Starting early to combat obesity: Examining parents' decisions for their young child's physical activity-related behaviours

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Background: Given inactivity is a major health concern and prevalent during early childhood, this research identified the motivations underlying parents' decisions to engage their young child in adequate physical activity and limited screen-time. **Methods:** Drawing on the Theory of Planned Behaviour, Study 1 (N = 20) interviewed parents of children aged 2-5 years to identify commonly held beliefs about these behaviours. The findings informed Study 2 (N = 204), a prospective quantitative assessment to determine the predictors of parental decision making in these contexts. **Findings:** Study 1 revealed parents' attitudinal beliefs, social influences, and control perceptions play an important role in guiding decisions for their child's health. Study 2 determined the mechanisms by which these processes operate. **Discussion:** Identifying key determinants of parental decision making for their child's health is integral to developing effective interventions aimed at improving active lifestyles in young children in a nation with growing obesity rates.

A qualitative study on sexuality concerns of men on androgen suppression therapy

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Background: Androgen suppression therapy (AST) is a mainstay therapy for the management of prostate cancer and results in a range of side effects including sexual dysfunction. No research has explored how AST affects men's sexuality and sense of masculinity, and how an exercise intervention may counteract such effects. **Methods:** Twenty men (exercise intervention, N = 10) receiving AST were interviewed and a consensual qualitative research approach was adopted to guide the study and interview methods. **Findings:** Analysis revealed that men had a sense of personal acceptance of their sexual dysfunction through partner support, understandings of AST therapy, and holding age-related beliefs about sex. The exercise intervention contributed to the acceptance of sexual dysfunction through masculinity reinforcement and peer support. **Discussion:** Understanding of the impact of AST will aid in the development of an intervention program designed to counteract the negative impact of AST on men's sexual health and general well-being.

Are intervention facilitator empathy and behaviour change technique use related to lifestyle change outcomes?

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Background: Outcomes of behavioural interventions may be influenced by communication style (empathy) of those delivering interventions, and behaviour change techniques (BCT) used by participants. **Methods:** We analysed data from participants (N=239; 40-69 years) with type 2 diabetes in the intervention arm of the Addition Plus trial, who received intensive diabetes treatment plus a facilitator-led theory-based intervention. At one year, participants rated their facilitator on Consultation/Relational Empathy and reported usage of nine BCTs taught in the intervention, and confidence in using them. **Findings:** Perceived facilitator empathy was unrelated to changes in behaviour and clinical outcomes, but predicted the number of BCTs used and confidence in using them (both $\beta = .20$, $p < .01$). Use of specific BCTs (e.g., goal setting, preparing for setbacks) was significantly related to achieving $\geq 5\%$ reduction in BMI. **Discussion:** Empathetic facilitators might improve participants' use of BCTs in daily life, whilst the use of specific BCTs enhances weight loss.

Text messaging to support smoking cessation in young people: A cluster randomised controlled trial

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Young people are unlikely to participate in smoking cessation programs. However, tailored text messaging (SMS) delivered via mobile phone might be a new technology to enhance participation and to support cessation.

In a cluster randomised design, classes from vocational schools were assigned to an intervention (84 classes) and a control group (81 classes). Students filled in an online questionnaire before and 6 months after the intervention. The intervention group received automated behavioural-change support based on the Health Action Process Approach. Hierarchical linear modelling was used to analyse participation and the effects of the intervention on smoking cessation as well as smoking reduction. Participation was high (75%). Students in the intervention group ($n=286$) smoked significantly less than students in the control group ($n=270$) and smoking cessation was slightly higher (6.3% vs. 5.5%; n.s.). SMS provides an attractive medium to deliver smoking cessation interventions to young people and is effective to support smoking reduction.

Genetic causal beliefs of morbidity, health behaviors and control beliefs during two decades in general population

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Background: The role and meaning of genetic information has increased during last decades considerably. We examine changes in different causal beliefs of morbidity and their association to

health behaviors and control beliefs from 1982 to 2002. **Methods:** Five population based health surveys (FINRISKI) from 1982 to 2002, aged 25 to 64 years (n=15,805). Participants were requested to choose the most important cause for morbidity from a list of ten alternatives. **Findings:** The prevalence of genetic causal belief was increased from 4% in 1982 to 10% in 1992. This group had more pessimistic beliefs of the outcomes of health behavior changes. Participants with worse health behaviors (smokers, inactive, obese) select less likely behavior and more likely genetic cause as a main cause for morbidity. **Discussion:** Relative importance of different causal beliefs of morbidity has changed since 1980's but associations of genetic causal beliefs to health behavior and attitudes remained same.

Intervening to improve wellbeing in retirement: The LiveWell programme

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Background: The LiveWell programme aims to develop pragmatic interventions to improve health and wellbeing through retirement transitions. Social relationships, physical activity and diet all influence wellbeing, but there is little evidence about how to effectively intervene in retirement, and which social components to target. **Methods:** Mixed-methods: (i) systematic review, (ii) qualitative study (n=52, focus groups, interview) using methods of grounded theory, (iii) co-design workshops (n=3). **Findings:** Provision of 'social roles' can improve wellbeing for those looking for structure and purpose in retirement. Resources such as good health, wealth, and rewarding social relationships underpin wellbeing. However the 'capability' to mobilise such resources to achieve outcomes was key in participants' accounts of wellbeing-in-practice. Identification of personal needs and the assistance of a mentor in planning and goal setting are emerging design themes. **Discussion:** Wellbeing in retirement can be promoted through role-provision and assistance with building capability to achieve desired outcomes.

Does relationship satisfaction protect against physical diseases in pregnancy?

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Background: Marital quality is known for its health protective effects. However, little is known about its effects on manifest physical diseases during pregnancy. The present study assesses the extent to which relationship satisfaction is associated with self-reported physical diseases and conditions during the first trimester of pregnancy. **Methods.** Pregnant women (n=82 480) completed questionnaires concerning relationship satisfaction, 38 different diseases and medical conditions as well as demographic characteristics, physical activity, depression, self-esteem and social support. Logistic regression analyses were provided separately for each disease or condition. **Findings.** Level of relationship satisfaction was significantly related to a number of diseases and conditions, including infectious diseases, pains in muscles and joints, pregnancy ailments, protein in urine and high blood pressure. **Discussion.** The findings may suggest that high relationship satisfaction can protect against infections and other medical conditions which previously have been linked to adverse maternal and fetal health.

Review of a common sense model-based patient information intervention in the context of rehabilitation

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Background: Patients are commonly dissatisfied with information they receive. Referring to the CSM and the role patients' perceptions play for the integration of medical information, we developed an intervention that tailors information to patients' illness and treatment perceptions. **Methods:** Using a sequential control group design the intervention was evaluated in a sample of N=409 chronically ill patients and N=42 health professionals. Intervention content was based on an assessment of patients' perceptions. Evaluation focused on patients' satisfaction with information and rehabilitation outcomes. **Findings:** Regarding patients' satisfaction with information and partial modification of illness perceptions the intervention has proved to be effective. An impact on rehabilitation outcome could not be proven. On the part of the health professionals the intervention was met with great approval. **Discussion:** Following a current issue in health care discussion the intervention implements a strong patient-oriented approach. Refining and optimizing the intervention is an objective for future research.

RCT of an intervention to reassure patients about test results in cardiac clinic

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Background: Most people referred to cardiac clinics have non-cardiac chest pain (NCCP). Those with cardiac chest pain (CCP) often receive medications, not surgery. Patients with negative beliefs may not be reassured they have the correct diagnosis or treatment. Petrie et al. (2007) reported that, for people with NCCP, discussing the meaning of potential results with a health psychologist before tests was more reassuring than discussing results afterwards. **Question:** In people with CCP or NCCP, is a brief discussion by nurses before tests more reassuring than a leaflet covering the discussion points? **Methods:** Randomised controlled trial (RCT) comparing intervention (discussion) with control (leaflet). 120 participants (60/arm). Primary outcome: reassurance questionnaire at post-clinic, one and six months. **Findings:** Unlike the Petrie study, there were no significant differences in reassurance between intervention and control at any timepoint. **Discussion:** The studies differed in: participants; clinical sites and health professions involved, which will be discussed.

Correlates of weight loss: An 18 month follow up

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Background: The study aimed to explore weight loss in individuals over 18 months and to determine which factors at baseline or follow up were the greatest correlates of weight loss. Leventhal's self-regulatory model of illness behaviour provides the theoretical underpinning to the

research with a focus of the individuals' beliefs and behaviour. **Methods:** Participants (n=266) completed a questionnaire at baseline and 18 month follow up concerning their beliefs about their weight problems, the brief illness perception questionnaire, diet and exercise behaviour along with help seeking and methods of weight loss. Multiple regression analysis was used to explore the best predictors of weight loss by follow up. **Findings:** The results showed that weight loss was not significantly predicted by either baseline demographics or baseline beliefs and behaviours. Follow up variables, however, were significant; in particular concern about their weight, endorsing a behavioural cause to their weight, eating healthy snacks and not having a high fat diet were associated with greater weight loss by 18 months. **Discussion:** Weight loss maintenance is hard to achieve. This study indicates that by 18 months the most important factors are not beliefs or behaviours at the start of weight loss attempts but those at the end. Interventions are therefore needed which can generate a shift in beliefs and behaviours towards those most likely to facilitate weight loss.

Ruminative brooding and physical symptoms in couples: Does disclosure buffer negative effects?

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Ruminative brooding is seen as maladaptive intrapersonal emotion regulation. In contrast, disclosure is supposed to be protective and to interrupt possibly repetitive negative thinking. The aim of this study was to investigate the effect of brooding on physical symptoms in couples and whether this effect is buffered by disclosure. 105 couples filled in an online-questionnaire assessing brooding, daily negative disclosure with the partner, and physical symptoms (PHQ15). 3 months later, PHQ15 was reassessed. APIM analyses were conducted controlling for baseline PHQ15. Own and partner's brooding predicted physical symptoms 3 months later. In males this effect was buffered by disclosure of the partner. In females own brooding was moderated by own disclosure. Maladaptive emotion regulation is a risk factor for health- for both, the ruminator and his/her partner. However, disclosure seems to buffer this effect. Further research is needed to shed more light on couple processes as moderators of risk factors.

Physiotherapists' physical activity intervention implementation and associated factors

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Background: There is lack of knowledge on the implementation of physical activity (PA) interventions. Therefore, this study aimed to investigate physiotherapists' PA intervention implementation fidelity and satisfaction, and influencing factors using a Theoretical Domains Framework (TDF)-based questionnaire. **Methods:** In this cross-sectional study, physiotherapists (n=187) completed an online questionnaire measuring the 14 domains of the TDF, self-reported implementation fidelity, and satisfaction with their implementation. **Findings:** Physiotherapists

reported on average high implementation fidelity, but were less satisfied with their implementation. Internal consistency values for the domains ranged from 0.6 to 0.9. All domains showed significant positive correlations with implementation fidelity and implementation satisfaction. Preliminary results indicate that the TDF domains together accounted for 26% ($p < .001$) of the variance in implementation fidelity and 42% ($p < .001$) of the variance in implementation satisfaction. **Discussion:** This study facilitates the understanding of PA interventions' implementation and its influencing factors. This may aid the development of effective implementation strategies.

Quality of life in neurodegenerative diseases: Are we asking the right questions?

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Background. Improving quality of life (QoL) is top of the agenda in neurodegenerative diseases, but commonly used questionnaires focus heavily on physical health and symptoms. The study explored factors patients with Parkinson's disease (PD) consider important to maintain a good quality of life. **Methods.** Forty-nine PD patients completed an interview-based assessment of QoL. Participants identified five areas of life which they ranked in order of importance. These personalised factors were content analysed to identify domains patients considered central to QoL. **Findings.** Eleven primary areas emerged as important for maintaining good QoL. 'Family' was most frequently reported followed by 'Health' and 'Hobbies/interests'. 76% ranked Family as the most important factor, with only 5% rating 'Health' as most important. **Discussion.** The results suggest that factors such as family are more important in determining QoL for most patients. Measures of QoL which focus on physical health may result in artificially low estimates of quality of life.

Quick to judge: Using experimental methods to explore implicit attitudes towards genetics and genetic conditions.

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Background: Given the availability of whole genome sequencing and implications for people's decisions and behaviours in relation to lifestyle choices, this study explored the impact of genetic information on people's implicit attitudes towards genetic conditions using experimental methods. **Methods:** 92 undergraduate students completed a word-association reaction time task capturing implicit and explicit attitudes towards genetics-related words, a series of vignettes incorporating four different levels of severity of genetic condition, and intention to undergo genetic testing. **Findings:** Participants reported more negative attitudes towards and less intention to pursue a relationship with individuals with more serious genetic conditions $F(1, 41) = 4.28, p = .007$. At the end of study, 75% of the sample stated that they would be likely to have a genetic test if available. **Discussion:** Further work will explore the potential role of experimental tasks in developing educational and attitude-change interventions for both the public and health professionals.

Swine flu: A comparison between the public sphere of Mexico and Spain

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The 2009 swine flu was a pandemic influenza involving H1N1 virus. This paper studies how the mass media have treated this issue by analyzing the largest circulation newspapers in Mexico and Spain. According to the Collective Symbolic Coping, when an object enters the public sphere grabbing the attention of the media, the public adopts it and share a common understanding. 167 news of the two newspapers from April 2009 to August 2010 were analyzed. First, a positive correlation between the coverage of the outbreak and influenza-infected people was found. Second, a positive correlation between the coverage of the flu in Spain and the representation of health as a problem for the Spanish was also found. Third, an ALCESTE showed five main classes. Implications for research on social representations and media coverage as well as on strategies resulting from media discourse to cope with threatening health crisis are discussed.

Operationalizing goal adjustment strategies

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Background: Adolescents facing cancer are likely to experience goal disturbance. Goal disturbance is related to psychological distress, which can be alleviated by goal adjustment. Relevant theories have identified several goal adjustment strategies (GAS), but their use has not been empirically tested. Therefore, this study aims to operationalize GAS. **Methods:** Adolescent cancer patients listed their goals 3 and 12 months post-diagnosis. All goals were scored on goal characteristics (importance, attainability and effort by patients; life domain and level of abstraction by two authors). The operationalization of all six GAS was based on the scores of the goal characteristics using mathematical formulas. **Findings:** All GAS could be feasibly operationalized using relevant goal characteristics. Cancer patients (N= 32, 56.3% female) used four out of six GAS. **Discussion:** Goal adjustment strategies can be feasibly determined using mathematical formulas based on goal characteristics. Future research could investigate which strategies are most adaptive.

Factor structure of the Birmingham IBS symptom questionnaire in non-target populations

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Background: The Birmingham-IBS symptom questionnaire was developed to assess the severity of Irritable Bowel Syndrome (IBS) symptoms. We translated it into German and examined its latent structure in two samples of participants not diagnosed with IBS. **Methods:** We compared the proposed 3-factor solution to nested factor models in a homogeneous internet sample of healthy adults (N=698) and a heterogeneous internet sample (N=105) of participants who suffered

from diverse medical/psychological conditions. **Findings:** A 3-factor model (pain/constipation/diarrhea) fitted best in our healthy (CFI=.97, RMSEA=.09) and diseased samples (CFI=.98, RMSEA=.08). Correlations of the latent factors with the sum scores of other questionnaires (e.g., pain sensitivity) supported the validity of our findings. **Discussion:** Although the questionnaire was developed to assess symptom severity for participants diagnosed with IBS, it is also useful in non-target populations. Given the high frequency of gastrointestinal symptoms in the general population, we propose to treat this construct as a continuum.

Metabolic syndrome and mental health: A study of Australian farm men and women

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Background: This study aimed to determine the predictive relationships between Depression, Anxiety and/or Stress and metabolic syndrome in farm men and women, a cohort that has poorer health outcomes than the general population and experiences unique psychological stressors. **Method:** A sample of 358 farm men (N=199) and women (N=169) participating in the Sustainable Farm Families program were assessed for metabolic status and depression, anxiety and stress at baseline and again at 12 months follow-up. **Results:** The results revealed that the prevalence of metabolic syndrome is greater in farm men and women than the general population, and that depression is related to the emergence of metabolic syndrome, whilst both depression and anxiety are involved in its maintenance. **Conclusions:** It is concluded that psychological evaluation and interventions should be included in the detection and treatment of metabolic syndrome.

Does effort-reward imbalance and overcommitment relate to real-time stress and heart rate in nurses?

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Background: Effort Reward Imbalance (ERI) and overcommitment in stressful work settings is related to cardiac dysfunction. Little is known about the acute effects of ERI and overcommitment on stress and cardiac reactivity in real life. This study examines the relationship between ERI and overcommitment on stress and heart rate. **Methods:** Nurses (n=150) working for the 24-hour telephone advice service NHS24 (Scotland) completed Siegrist's ERI and overcommitment scales, rated the stressfulness of each call and had heart rate (HR) measured continuously (Actiheart, Cambridge Neurotechnology) over 2 shifts. Multilevel modelling analysis was used (MLwiN). **Findings:** Effort and overcommitment were associated with higher stress ratings ($p < .001$) and overcommitment with higher HR throughout the shift ($p < .005$). Participants with high overcommitment showed less differentiation in HR between on and off call ($p < .001$). **Discussion:** Nurses who find their work effortful and cannot unwind are more stressed at work and may be at increased cardiac risk.

Measuring patient-centredness in healthcare: Development of the Valuing Patients as Individuals Scale (VPAIS)

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Background: Health care in Scotland strives to deliver high quality, person-centred care, however, there are few validated measures of patient centredness. This study aims to update and re-validate the VPAIS for routine use. **Methods:** A mixed methods study, including face validity focus groups and interviews with patient and healthcare staff stakeholders and exploratory factor analysis. A sequential cohort of 790 participants were sampled across 34 wards in two acute hospitals in one NHS Health Board during September 2011. **Results:** Exploratory Factor Analysis (EFA) on 219 complete data sets, using varimax rotation revealed a 31 item three factor solution (Nursing Care & Respect; Doctor Understanding & Engagement; Patient Concerns) with good reliability, concurrent and discriminant validity. **Discussion and conclusion:** Long and short scale versions of the VPAIS are sufficiently developed for routine evaluation of patient experience within secondary care.

Evaluation of the HOPE programme: Improving psychological well-being for parents of children with ASD/ADHD

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Background. This population group has shown significantly high levels of depression/anxiety. This study evaluates whether a self-management intervention, based on principles of behaviour change and positive psychology, improves psychological well-being and reduces psychological distress. **Methods.** Participant's (N=99) attended a 6-week, 2 hour, intervention in groups of 10, delivered by trained peers. Outcome measures were anxiety, depression, well-being, hope and gratitude. Focus groups were conducted with participants (N=12) to gather qualitative data of individual experiences. Data were analysed using thematic analysis. **Findings.** Related t-tests showed significant post-intervention improvements for anxiety (effect size = 0.73); depression (0.86); mental well-being (1.26); hope ($r = 1.19$) and gratitude (-0.41). Qualitative data found high acceptability, instillation of hope, positive attitude, good group cohesion and peer facilitators were received positively. **Discussion.** The intervention resulted in significant improvements in psychological outcomes. The intervention can be sustained with minimal costs. Online training videos are being developed for facilitators using behaviour change techniques.

Eat me if you can: The effect of proximal food on eating-specific motor-activations

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Background: This study examined the mechanism underlying increased consumption of proximal compared to distant foods. Previous research showed that proximal, but not distant objects activate object-specific motor-responses. Our aim was to test whether motor-responses are

activated in presence of proximal but not distant foods. We hypothesized that the activation of micro-affordances would be modulated by the distance at which foods are presented. **Method:** 53 participants were presented with images of food or toys at distance or proximity, followed by compatible and incompatible words (observation, eating, playing). Participants were requested to respond only to compatible trials. **Findings:** As expected participants responded faster to proximal than distant foods when presented with eating words but not when presented with observation words. The same pattern was observed for toys and playing words. **Implications:** These results suggest that the proximity of foods alone activates motor-responses to eat, which may facilitate mindless consumption of nearby foods.

How are obesity policies received by individuals who find it difficult to control their weight?

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Background: Obesity is a growing problem worldwide. A number of obesity policies have been introduced, however little is known about the impact of these policies on the motivation and behaviour of individuals. **Methods:** 17 individuals who find it difficult to control their weight took part in semi-structured interviews. Data were analysed using thematic analysis and interpreted using Self-Determination theory. **Results:** All participants felt that policy intervention was needed, but only participants who were autonomously motivated to lose weight perceived current policies as helpful to achieving their personal goals. Those who were not autonomously motivated did not take advantage of opportunities that obesity-related policies can provide (e.g. food labelling). Barriers to engagement with policy approaches included perceptions of uniqueness and a lack of social support. **Discussion:** The results suggest that despite theoretical support for obesity policies, individuals do not see policy as a source of motivation for change.

Sharing information about success and cardiovascular stress responses

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Social support is typically thought to protect people from bad events, whereas capitalization support augments people's reactions to good events. Successful capitalization can facilitate people's perception that they have high-quality relationships - a perception supportive in times of stress (Gable et al. 2012). We tested if the supportive function of capitalization pertains to cardiovascular stress responses. This laboratory experiment involved 120 couples aged 18-27 ($M=21.93$, $SD=2.07$). Person A completed a task and sent to Person B a short message about success (capitalization) or neutral (no-capitalization). Each round was followed by a 5-minute recovery period. Cardiovascular activity was recorded with an electrocardiogram. The capitalization group had lower heart rate in the recovery periods, $F(1, 146) = 2.99$, $p = .05$. Enthusiastic partner's responses decreased low frequency heart rate variability (sympathetic activity). The results suggest that sharing success information and receiving enthusiastic responses from the partner influence physiological aspects of stress compared to neutral interactions. This finding supports theories that focus on positive aspects of social support.

Illness representations as mediator in the relationship of cardiac patients' personality to their health

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Background: The aim of this prospective study was to examine the indirect effects of illness representations on the relation of personality on patients' subjective health. **Methods:** One hundred and fifteen chronic cardiac patients participated. Personality was assessed in the first phase of the study; illness representations in the second (45 days later); subjective physical and psychological health was assessed in the first and the final phase (90 days later). **Findings:** Personality traits were associated with illness representations, which in turn were related to health. Personality predicted health mainly through three representations: illness consequences, personal control, and the attribution of illness to emotional causes. **Discussion:** Personality, probably because it reflects the typical ways of understanding self, as well as the usual ways of processing information, seems to be involved in the understanding of "self within the illness" (i.e., illness representations) and through this in adaptation to illness.

Predicting maintenance of attendance at walking groups: Testing three leading maintenance theories

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Background: Little is known about the factors that account for maintenance. This study aimed at testing how well theoretical constructs derived from the HAPA, Rothman's theory and Verplanken and Orbell's approach to habit predicted continued maintenance at walking groups. **Methods:** 114 participants replied to a postal questionnaire. An objective assessment of attendance was gained. Multilevel modelling was used to predict maintenance, controlling for clustering within walking groups. **Findings:** Recovery self-efficacy predicted maintenance, even after controlling for habitual behaviour and accounting for clustering. Both satisfaction with social outcomes and overall satisfaction predicted maintenance after controlling for habitual behaviour but not after accounting for clustering. Satisfaction with health outcomes had a trend towards predicting maintenance after controlling for habitual behaviour, and significantly predicted maintenance after accounting for clustering. SRHI did not predict maintenance. **Discussion:** There is a need for intervention studies to boost recovery self-efficacy and satisfaction to assess impact on maintenance.

An underlying mechanism of change: How prostate cancer survivors make sense of dietary changes?

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Background. Dietary behaviour and actions are believed to be influenced by both social and personal factors while how breast cancer survivors make sense of their relationship with food is

believed to be divided into stages. The aim of this study is to explore how prostate cancer survivors make sense of any changes in their diet after diagnosis. **Methods.** This is a Qualitative study using semi-structured interviews with 8 men diagnosed with prostate cancer and analyzed using Thematic Analysis. **Findings.** Overarching themes were “determinants ” and “perceived results of change”. Seven themes focusing on attitudes, beliefs and relationships explained the two overarching themes. We hypothesize that they form an underlying mechanism used by participants to determine and explain lifestyle change especially related to diet. **Discussion.** The processes of dietary change have a social, interpersonal and intrapersonal nature. The schema we suggest derives from how prostate cancer survivors make sense of meanings, experiences and relationships.

The role of implicit measures of motivation in health, relationships, and well-being

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Research into motivation underpinning health and well-being has traditionally adopted explicit, self-report questionnaires. Recently, there has been growing support for the role of implicitly measured motivation on health, relationships, and well-being. Dual-systems models have been proposed to account for the roles of both explicit/reflective and implicit/impulsive processes on a range of behaviours. This presentation will outline a program of research (N = 70 to 162) that shows the role of implicit and explicit motivation on health behaviours, relationships, and well-being. Across several studies, dual-systems models were tested, and the unique contribution of implicit measures of motivation assessed. Analyses indicate that implicit motivation offers additive prediction of a range of health behaviours and relationship factors; however, consideration of the outcomes shows that implicit motivation may better predict spontaneous or unplanned behaviours. This provides support for some of the patterns of interaction hypothesised in dual-systems models. Future research and implications are also outlined.

Phone application driver monitor acceptance and effectiveness in reducing young driver risk-taking: A systematic review

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Road traffic collisions represent the leading cause of death for those under the age of 25. With the increasing manufacture of GPS enabled Smartphones, applications providers have begun to offer ‘Phone Application Driver Monitors’ (PADMs) to this demographic. PADMs provide real-time feedback for monitored driving behaviours, and online summary reports to improve technique. However, the extent to which young drivers deem PADMs acceptable for use, or how effective they are if adopted, is unclear. A systematic review of the monitoring literature was conducted to examine this. The perceived accuracy and accessibility of a monitor, and the extent to which usage was perceived as personally beneficial or costly were identified as factors influencing young driver acceptance. In-vehicle monitoring was found to improve young driver speeding, extreme driving manoeuvres and seatbelt use. Although more PADM-specific research is necessary, the findings of this review extend the current driver monitoring and technology acceptance literatures.

Remote personalized familial cancer risk communication as a tool to motivate colonoscopy: A randomized controlled trial

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Background: The study's goal was to evaluate the efficacy of a personalized risk communication intervention for improving colonoscopy screening among at-risk relatives of patients with colorectal cancer (CRC). The intervention was based on a fear management theoretical model, and incorporated motivational interviewing and implementation intention strategies. **Methods:** Study candidates were not up-to-date with risk-appropriate screening, not eligible for genetic testing, and were recruited using population-based approaches. 481 enrollees were randomly assigned by family unit to an active intervention that included telephone counseling and tailored print materials or a "one-size-fits-all" educational brochure. **Results:** For intent-to-treat analysis of the primary outcome, medical record-verified colonoscopy at 9 months, the tailored intervention group was almost three times more likely (odds ratio=2.83; 95% confidence interval=1.87-4.28; $P<0.001$) to get screened than the brochure-only group. **Conclusion:** Theory-guided, personalized risk communications that incorporate evidence-based behavior change techniques may improve prevention practices among at-risk relatives of CRC patients.

Effects of a 12-week endurance training on the stress-health relationship and the physiological stress response

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Background: Stress is a major threat for physical and mental health. The present study tests whether physical exercise buffers detrimental effects of stress on health and whether this effect is linked to exercise-induced physiological adaptations. **Methods:** N=149 inactive men were randomized to two 12-week intervention groups (endurance training, relaxation training) and a waiting list control group (RCT-design). Before and after intervention we assessed the physiological stress response (cortisol, heart rate variability) to the Trier Social Stress Test, physical fitness (lactate threshold test) and self-reported health and stress. **Findings:** Only endurance training reduced negative effects of stress on health and increased fitness ($t(36)=-4.38$, $p<0.001$, $d=.39$). Moreover, exercisers showed a reduced cortisol response ($F(2,97)=3.43$, $p<0.05$, $\eta^2=.07$), and an increased heart rate variability ($F(2,93)=5.12$, $p<0.01$, $\eta^2=.10$) post intervention. **Discussion:** Our results suggest that a 12-week endurance training has a stress-buffering effect and that this might be due to a more beneficial physiological stress response.

An improved measure for medication adherence: The development of a medication adherence scale using the Rasch methodology

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Current self-report measures for medication adherence often fail to reveal the non-adherence rates that are reported based on objective measures (e.g., pharmacy refill data). One of the main

limitations of the existing self-report measures is that they do not consider the wide range of non-adherence behaviors. In this study we designed a new adherence self-report measure that systematically assesses the different types of non-adherence behaviors and their likelihood of occurring (e.g. skipping one dose or taking a drug holiday). The questionnaire was administered to 898 elderly receiving medication for chronic conditions, together with the two most commonly used self-report measures of medication adherence (i.e., the MARS and Morisky scales). The data was analysed using the Rasch methodology. The questionnaire measures medication adherence rates that more closely resemble non-adherence rates as measured by objective methods (e.g., pharmacy refill data). We conclude that the Rasch-based adherence questionnaire provides a more reliable measurement of the medication non-adherence level of an individual and allows for a meaningful interpretation in terms of the different types of non-adherence than the self-report measures that are currently used for measuring non-adherence.

Can social support work virtually? The impact of an interactive on-line tool on health outcomes and quality of life among chronically ill patients

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Background: Although numerous studies confirm the beneficial effects of social support, there is little evidence on whether this support can be delivered through on-line social interaction. Our theoretical framework considers social interaction as the foremost influence on health outcomes (Schulz & Nakamoto, 2005). In this study, we examine the impact of interaction using an online social support tool on key outcomes: quality of life, empowerment, health literacy and acceptance.

Methods: 160 rheumatoid arthritis patients participated interactively on a purpose-built Internet health communication tool. On-line pre- and post-test questionnaires were used to evaluate the impact of this social support. **Findings:** Those participating in social interactions showed statistically significant ($p < 0.05$) increases in mean levels of empowerment, knowledge, acceptance behavior and quality of life. Participation was significantly positively correlated with health outcomes and self-management activities. **Discussion:** Internet interactive applications are a promising and economical means of providing social support within the health system.

Psychological correlates of prostate cancer

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Background: Previous studies about personality correlates of cancer patients led to inconclusive results mainly because demographic and medical factors were not controlled. The study was done in the framework of the Cognitive Orientation theory of health behavior and wellness. The objective was to identify a coherent set of personality tendencies in prostate cancer patients. **Methods:** The 275 participants included 126 with prostate cancer, 88 with benign prostatic hyperplasia, and 59 healthy controls. They filled a questionnaire assessing personality dispositions identified in pre-tests. The data was analyzed by anova, discriminant analysis and logistic regression. **Findings:** The groups did not differ in demographic characteristics, but in most personality dispositions, e.g., control, denial, conscientiousness, perfectionism, and anger expression. These tendencies were correlated with medical characteristics. **Discussion:** There exists a specific set of psychological

correlates of prostate cancer that has not been identified previously and could serve as basis for adjuvant psychological interventions

Resilience and cognitive orientation

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The objective is to present a study on predicting resilience in individuals wounded in car accidents. The study was done in the framework of the cognitive orientation (CO) theory which enables identifying the motivational components underlying manifest behaviors. The hypothesis was that high scorers on the CO of resilience questionnaire will manifest higher levels of resilience. Participants were 120 individuals of both genders (18 to 65 yrs) who have been wounded in car accidents over 18 months earlier. They were administered questionnaires assessing the CO of resilience, personal growth, PTSD, and coping with health injuries and problems. The CO questionnaire predicted who of the participants scored high on resilience on all measures. The best predictors were goal beliefs concerning relations between the self and reality. The conclusions are that resilience is a personality disposition with many manifestations and deep motivational roots, amenable potentially to promotion by means of systematic intervention.

Impact of the transition to palliative care disclosure on quality of life among patients with cancer

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Background: The aim of the study was to explore the impact of the transition to palliative care and end-of-life disclosure among patients suffering from cancer. **Methods:** Patient responses were compared according to three scales assessing the satisfaction with communication (HCCQ), quality of life (SF-36) and psychological distress (HADS). The independent variable (IV) was type of disclosure: 1) disclosure to the patient, 2) disclosure to the relatives (without talking to the patient) and 3) no disclosure. **Findings:** Results showed an impairment for all dependent variables (DVs) when the information was disclosed to the patient. However, these results remained the same or were improved when the information was disclosed to the relatives or not disclosed at all. **Discussion:** The prognosis disclosure can have a very harmful impact on the patient's quality of life. Further studies are needed to improve current knowledge on how to disclose such information.

Body dysmorphic disorder and body image in patients with dental aesthetic dissatisfaction

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Background: Body Dysmorphic Disorder (BDD) can be considered as the most severe form of body dissatisfaction and result in common seeking for aesthetic enhancement procedures. As a

rule, surgical treatments seem unlikely to benefit to patients suffering from BDD. Currently, there is no data concerning the prevalence of BDD among French patients consulting in dental surgery.

Method: 130 patients were asked to complete several questionnaires assessing BDD, body image and the level of insight (for those presenting body dissatisfaction; N=44). **Finding:** 88 patients (66%) reported physical concerns, 16% excessive body concerns impairing their psychosocial functioning, 4% met diagnostic criteria of BDD. BDD Patients had the lowest scores of insight.

Discussion: The high prevalence of body dissatisfaction and BDD (generally associated to psychosocial disturbances) should engage dentists in a more systematic screening of these disorders to avoid unnecessary or harmful treatments.

The association between job strain and change in common mental disorders: A follow up study

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Background: The aim was to examine the association between job strain and change in common mental disorders (CMD) among female employees. **Methods:** The Helsinki Health Study baseline survey data 2001-2002 and follow up data 2007 (N=3621, response rate 83%) among 40-60-year-old female employees of the City of Helsinki were used. Mental health was measured by the General Health Questionnaire (GHQ-12) and job strain by Karasek's job content questionnaire. Socio-demographic and psychosocial working factors were included as covariates. Logistic regression analysis was used to examine the associations between job strain and change in CMD.

Findings: High strain was associated with an increase in CMD (OR 1.49, 95% CI 1.18-1.87.) Further adjustments for socio-demographic and psychosocial working factors only slightly attenuated the association. **Discussion:** High job strain is a risk factor for worsening mental health. Preventive actions to decrease job strain might help employees maintain their mental health.

Improving public health: Training health and social care practitioners in skills to support behaviour change

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Background: Public health policy stresses the potential of cumulative, small changes in individual behaviour to produce significant changes in population health. Health and social care practitioners were trained to facilitate health behaviour change during routine contact with clients. **Methods:** 148 practitioners completed training. Change in staff practice was assessed at three time points up to a year post-training using questionnaires, interviews and observation. **Results:** Practitioners demonstrated increased use of skills to support behaviour change at all time-points. A year post-training, they were observed to be using the skills significantly more often than a comparison group of practitioners who had not been trained. **Discussion:** This study demonstrates that frontline health and social care practitioners can be trained in skills to support behaviour change and that changes to their practice persist. Health psychologists should consider delivering behaviour change interventions through training frontline staff since they have the potential to reach large numbers of individuals cheaply and sustainably.

Self-esteem and HRQoL after MI: A 10 years follow-up based on the HUNT Sstudy, Norway

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Background: Self-esteem may predict health related quality of life (HRQoL) after myocardial infarction (MI). **Methods:** MI-survivors (n=1846) and MI-free participants (n=53407) in HUNT Study, Norway, were followed-up after 10 years. Hierarchical regression analyses were conducted. Self-esteem (Rosenberg's Self-Esteem Scale) at HUNT2 (1995-1997) was used as a main predictor. Three positive (self-rated health, general life satisfaction, positive affect) and three negative (everyday life impairment, anxiety, depression) HRQoL indicators at HUNT2 and HUNT3 (2006-2008) were outcomes. **Findings:** Self-esteem predicted all HRQoL indicators after MI controlling for age, gender, other demographics, health-status and lifestyle. Higher self-esteem was associated with higher positive and lower negative HRQoL indicators both in cross-sectional and prospective analyses. MI was not a significant moderator of the self-esteem-HRQoL relation, but age and gender were in many cases. **Discussion:** Self-esteem significantly predicts HRQoL for patients surviving MI.

A qualitative study of the determinants for vaccination uptake among health care workers

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Background: Influenza vaccination rates of health care workers (HCWs) are below health authority's recommendations. The current study investigated the determinants for and against vaccination uptake among German, Dutch and Belgian HCWs. **Methods:** Data was collected by means of 123 interviews, which were processed with QSR NVivo 9.0 and analysed using a mix of a deductive qualitative analysis and the general inductive approach. **Findings:** The main reasons for influenza vaccination uptake were self-protection and protection of patients and the family. The main reasons against influenza vaccination were a low risk-perception, fear of side-effects and doubting the effectiveness of the vaccine. **Discussion:** Together with previous findings from quantitative studies and this qualitative study, we were able to identify the most important determinants for and against vaccination uptake. Future health promotion programs should focus on these determinants, as well as the misconceptions and lack of knowledge that still exist among HCWs.

The consequences of caregiving: Distress in coronary artery bypass graft (CABG) surgery partners

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Background: Partners of CABG surgery patients are at risk of distress following surgery which may be partly explained by their caregiving role. This study aimed to determine the role of

caregiver burden for psychological, physical and social distress in CABG partners after surgery. **Methods:** In this prospective, longitudinal study 106 partners of CABG surgery patients completed questionnaires of depressive symptoms, anxiety, physical health status, marital functioning, social support and caregiver burden at two time points: 1 – 3 weeks before surgery (T1) and 6 – 8 weeks after surgery (T2). **Findings:** Partners did not experience worsening psychological and physical distress after surgery and anxiety levels improved. However, positive marital support and social support significantly worsened after surgery, and the decline was significantly predicted by increasing levels of caregiver burden. **Discussion:** Increases in caregiver burden predicted the deterioration of social well-being in CABG partners. Partners could benefit from increased support during the period of the patients' convalescence.

Depressive symptoms of childless older men and women in Europe

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Background: Individual and country-level differences in depression of childless older men and women in Europe were examined. **Method.** Depressive symptoms (EURO-D index) were assessed of 24,511 respondents to the Survey of Health, Ageing and Retirement in Europe (age 50+) in 13 European countries participating in waves 1 (2004) or 2 (2006/7) and wave 3 (2008/9), of which 2,935 respondents (51.3% female) reported never having had children. Logistic regressions were applied. **Results.** Country-specific prevalence of depression in childless respondents ranged from 16% (Denmark) to 52% (Poland). Childlessness predicted increased risk of several depressive symptoms, although gender, marital status and health were more important predictors. Childless respondents in Southern Europe and living alone had increased risk for depression at older ages, compared with younger ages. **Discussion.** Cultural factors in the association between childlessness and depression are important to understand risk of depression in childless older men and women.

Reversed message framing effect on accelerometer-assessed physical activity among Chinese older diabetic patients

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Background: Gain-framed messages are more effective than loss-framed messages in promoting low-risk health behaviors such as physical activity (PA). Because PA participation may become riskier among diabetics (e.g., lead to hypoglycemia, foot complications), this study examined whether the framing effect may reverse in this population. **Methods:** Participants included 220 Chinese type-2 diabetic outpatients aged 60 or older (52% being women) recruited in a hospital in Hong Kong. Participants were randomly assigned to read gain- or loss-framed PA messages and wore an accelerometer to objectively monitor their PA for the following 14 days. **Findings:** Participants who read loss-framed messages were found more physically active than those who read gain-framed messages ($\beta = -.13$, $p = .04$) in a regression, controlling for demographic and health factors. **Discussion:** Gain-frame-favoring effect on PA may not be universal. PA promotional messages should be tailored according to the perceived risks of PA in a particular population.

The influence of advertisements on health-related implicit attitudes and behaviour

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Background: Contemporary alcohol research suggests that implicit attitudes are important predictors of drinking behaviour and there is growing interest surrounding factors influencing them. Research suggests that evaluative conditioning (EC) influences implicit attitudes and at a population level the most obvious and prolific use of EC is advertising. **Methods:** Participants (n= 51, mean age= 22.43) completed alcohol- and chocolate-related Implicit Association Tests (IAT) before viewing an advertisement for either chocolate or beer. Participants then completed post-test IATs before being provided with chocolate and beer products and asked to consume as much as they wanted. **Findings:** Viewing a beer advertisement produced a significant positive shift in alcohol-related implicit attitudes from pre- to post-test. No other significant effects on implicit attitudes or behaviour were found. **Discussion:** Alcohol advertisements are effective in changing alcohol-related implicit attitudes; however the influence on behaviour requires further investigation. Implications for the manipulation of alcohol-related implicit attitudes are discussed.

Video game addiction/engagement and mental health: Mediating role of coping

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This study examined the mediating role of coping between video game addiction and video game engagement and mental health (stress, anxiety and depression). An international sample of 497 adult participants (M age 25.3 years) completed a cross-sectional online survey including the computer engagement/addiction scale (CEAS), Brief Approach-Avoidance Questionnaire (BACQ) and Depression Anxiety Stress Scale (DASS-21). Multiple mediation analysis showed partial mediation of coping between video game addiction and mental health but full mediation for video game engagement. Lower levels of approach coping and higher levels of diversion and withdrawal coping were related to poorer mental health. This is the first study which shows that coping is important in the relationship between video game addiction and mental health. Also, the findings provide validity for the distinction between engagement and addiction. Highly engaged video gamers with a maladaptive coping repertoire may be more vulnerable to developing video game addiction.

The interplay of dyadic invisible social support and gender in the context of smoking cessation

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Background: Received social support can have emotional costs. Recent research suggests that the most effective support is unnoticed by the receiver (i.e., invisible). Moreover, support provided by women seemed to be more effective than support provided by men. This study aimed at

analyzing whether invisible support is differently related to smoking and positive affect for women and men. **Methods:** Overall, 106 smokers with their nonsmoking partners completed a baseline and a three-week follow-up questionnaire on smoking behavior, received and provided social support and affect around a self-set quit date. **Findings:** In contrast to our assumptions, for men invisible support was associated with an increase in cigarettes smoked and a decrease in positive affect over time, but not for women. **Discussion:** Results do not confirm the benefits of invisible support for women and men. Further research should clarify the effectiveness of invisible support in the context of smoking cessation.

Stigma, disclosure, coping, and treatment adherence among people living with HIV/AIDS in Northern Tanzania

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Background: Several studies show that stigma, disclosure, or coping influence each other and HIV treatment adherence, but these factors have not been examined in combination. **Methods:** Trained interviewers collected data on disclosure, stigma, and self-reported adherence among 158 patients treated for HIV in Tanzania. Reliability, correlational and regression analyses were conducted to examine the relationship between these factors. **Results:** Reliabilities varied from poor to satisfactory. Actual and suspected HIV-status disclosure predicted perceived and self-stigma. Religious coping seemed to buffer the influence of perceived stigma on self stigma, and predicted HIV-status acceptance. Perceived stigma predicted HIV-status denial. Adherence was primarily influenced by maladaptive rather than adaptive coping strategies. **Discussion:** The issue of HIV-related stigma remains a considerable problem. Interventions should focus on replacing maladaptive with adaptive coping strategies in order to support adherence and patient well-being.

The impact of prison on health: What women say?

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Women in prison are described as having more health risk behaviors and a more weakened health status, becoming a group with greater and specific health needs. This qualitative study explores women's perception of the impact of prison on their health. Fifteen women participated in three focus groups and Thematic Analysis was used. They spoke about their views concerning what is to be healthy, the most common health problems and health needs of imprisoned women, and the impact of prison on health risk behaviors and health. Participants demonstrated adapted concepts of health and a good knowledge of the most common health problems and health needs in a women's prison. Regarding the impact of imprisonment on health and the health care provided in the prison, there are divergent views. Previous history of consumption and existence of mental and/or physical illness contribute to the belonging of discriminant groups.

Financial incentives for changing habitual health-related behaviours: A systematic review and meta-analysis.

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Background: Financial incentives could change habitual health-related behaviours, but the conditions under which they achieve sustained changes are uncertain. This review assesses i) the sustained impact of financial incentives on smoking cessation, physical activity, healthier eating and relevant biomarkers; ii) the extent to which impacts are modified by (a) target behaviour, (b) incentive value and/or attainment certainty and (c) recipients' deprivation level. **Methods:** Multiple electronic databases were searched for RCTs assessing outcomes at a minimum of 6-months from baseline. Dichotomous data were extracted and subjected to meta-analyses and meta-regressions grouped by timed endpoints. If unavailable, continuous data were extracted and dichotomised. **Results:** Thirty-nine trials met inclusion criteria. Financial incentives improved smoking cessation, with changes sustaining up to >2-3months after their removal (2.57, CI95% 1.20-5.54), but not thereafter. Weight-loss improvements disappeared post-incentive-removal. Incentives didn't improve other behaviours/outcomes. Their sustained impact wasn't modified by the pre-specified variables. **Conclusion:** Although financial incentives improve habitual health-behaviours, impacts are not sustained beyond 3-months after their removal, necessitating consideration of complementary methods for promoting change maintenance.

Family-based systems of achieving health and coping with illness: A Māori cultural perspective

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Background: This research explores Māori (indigenous population of Aotearoa/New Zealand) cultural perspectives of health and illness to consider how their health behaviours are influenced by their collective and collaborative worldviews. **Methods:** To understand their perspectives on health and illness, sixteen Māori patients participated in two semi-structured interviews, with a photo-storytelling component. Data were analysed using inductive thematic analysis. Themes were elicited and collated from each interview to provide a group of overall themes. **Findings:** Findings indicate Māori cultural concepts of health and illness are understood within the dynamics of the extended family system. For instance, maintaining health can involve group activities such gathering seafood together. Coping with illness can involve extended family members providing additional support and the cultural meaning of these activities are discussed. **Discussion:** The implications of family-based cultural concepts of health and illness for health psychology such managing health and illness collectively within extended families are discussed.

Long-term results of a self-regulation based physical activity intervention for chronic fatigue patients

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Background: This study analyzed the efficacy of a brief self-regulation based program for unexplained chronic fatigue patients targeting (balanced) physical activity, the "4-STEPS" program.

Methods: Forty-four patients were randomly allocated to either the intervention condition (4-STEPS) or the control condition. 4-STEPS combined motivational interviewing and self-regulation skills training. Patients in both groups were assessed at baseline (T1), post treatment (12 weeks-T2) and 1 year follow-up (T3) for fatigue severity, physical activity (number of daily steps, leisure-time physical activity and personal goal progress) and health-related quality of life (HRQoL). Self-regulation skills were assessed at T2 and T3. **Results:** Significant group x time effects of the intervention were found on fatigue severity, all physical activity related variables and HRQoL. Personal goal progress and self-regulation skills at T2 mediated the treatment effect on fatigue severity at T3. **Discussion:** This brief self-regulation intervention looks promising for chronic fatigue management.

Perceptions of erectile dysfunction in Slovak men: Focus groups

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Year 1998 saw the arrival of oral therapy for erectile dysfunction which had significant impact on discourses related to erectile function. The objective of this research was to analyze perceptions of erectile dysfunction and changing attitudes toward this method of treatment. The target group were men over 35 years of age in Slovakia recruited into our research by a poll agency. Data were collected in focus groups and by questionnaires. Overall 25 focus groups with men and 5 focus groups with women or specialists were conducted in 2000, 2003, 2008 and 2012, with the total number of 248 participants (of that 209 men). Principles of Social Representations Theory were applied in data analysis. Perceptions of erectile dysfunction in this group were analyzed and contrasted with terms and concepts used by experts (physicians, psychologists); differences were found in perception of this diagnosis by men and by professionals. Main conclusions concern perception of this diagnosis and related topics in men from the target group. Discourse was greatly influenced by social and economical contexts, messages of marketing campaigns by pharmaceutical industry, and shifts in perceived gender roles. The contribution also discusses some advantages and pitfalls of the focus group method when used in this context.

Effect of depression on ventricular tachyarrhythmia's and mortality in implantable cardioverter defibrillator patients

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Despite the demonstrated medical benefits of implantable cardioverter defibrillator (ICD) therapy and the high overall patient acceptance rate, 20-25% of ICD patients suffer from anxiety and depression. There is a need to know whether this has consequences above and beyond its impact on well-being and quality of life. The aim of the current study was to examine whether depression is independently associated with ICD therapy for ventricular tachyarrhythmia's (VT) and mortality in ICD patients. The study sample comprised a consecutive cohort of 430 patients implanted with a first-time ICD at a Dutch hospital. 108 patients (25.1%) were depressed (HADS-D ≥ 8) at time of implantation. Depression was not associated with an increased risk for VTs, but almost doubled the risk for all-cause mortality (HR 1.88; 95%CI [1.04-3.40], P = 0.037) during a follow-up of 3.8 years, after adjusting for demographic and clinical characteristics.

Patient-directed services, empowerment and quality of life in haemodialysis

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Background. The maintenance of an adequate of quality of life represents a critical issue in the management of patients in haemodialysis. The Consumer Directed Theory of Empowerment (CDTE) implies that greater patient direction in policy formulation and services delivery, together with an increased community integration, endorses an empowerment process which leads to a better quality of life. Aim of the study was to test a contextualized version of CDTE in an ambulatory for patients in haemodialysis. **Methods.** 69 patients completed a questionnaire measuring the following variables: patient direction, family integration, self-efficacy in managing the disease, mental and physical health. **Findings.** The results showed that patient direction and family integration have an indirect effect on mental and physical health, through self-efficacy. **Discussion.** Findings support the potential of CDTE in the context of health services for haemodialyzed patients. Implications for the implementation of health programs aimed at improving quality of life are discussed.

Home visiting intervention to improve birth outcomes for a disadvantaged community: A randomised control trial

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Background: Pregnancy, labour, and delivery involve risk for mothers and children. The aim of this randomised control trial was to test the effectiveness of a prenatal home-visiting mentoring and education programme (Preparing for Life), provided to disadvantaged women, at improving labour and birth outcomes. **Methods:** 233 pregnant women from a disadvantaged area of Dublin, Ireland were randomly assigned to a treatment (n=115) and control group (n=118). Treatment group participants received, on average, 6 home visits between programme entry and birth. The primary outcomes were infant outcomes (Apgar scores, birthweight) and labour outcomes (labour onset method, delivery method). **Findings:** Prenatal home visits were associated with a reduction in caesarean section rates (Mcontrol = 0.26, SDcontrol = 0.44; Mtreat = 0.15, SDtreat = 0.36, p<.05). There were no differences in infant outcomes or other labour outcomes. **Discussion:** Pre-birth home visiting programmes may be an effective strategy for reducing the rates of C-section.

A longitudinal study of quality of life among people living with a progressive neurological illness

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Background: This study investigated predictors of quality of life (QOL) of people with progressive neurological illnesses. **Method:** Participants were 257 people with motor neurone disease (MND), Huntington's disease (HD), multiple sclerosis (MS), or Parkinson's. Participants completed questionnaires on two occasions, 12 months apart. **Findings:** There was an increase in severity of symptoms for people with MND, negative mood for people with HD and Parkinson's, and social support satisfaction for people with MS. Predictors of QOL were severity of symptoms

for people with MND, HD and MS; negative mood for people with MND and Parkinson's; and social support satisfaction for people with MS. **Discussion:** These results demonstrate the importance of illness severity and mood in predicting QOL, but also indicate differences between illness groups. The limited role played by social support and relationship is a surprising finding from the current study.

Using patient scenarios to assess general practitioners' decision difficulty and quality: A systematic review

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Background: Primary healthcare quality depends largely on General Practitioners' (GPs) decisions. This systematic review assessed the use of patient scenarios (clinical/case vignettes) to assess perceived decision difficulty and decision quality. Scenario methodology was also reviewed. **Methods:** Five databases were searched; 152 studies met inclusion criteria. Relevant data were extracted and the numbers of studies assessing decision difficulty and/or quality were calculated. Decision difficulty and scenario methodology data were descriptively synthesised; decision quality data were synthesised using Chi-squared analyses. **Findings:** Of 152 studies, 5 assessed decision difficulty; 66 assessed decision quality; 1 assessed their relationship, which was negative. Significant associations were found between decision quality and decision type, scenario presentation and response format, and decision quality assessment standard. **Discussion:** Scenario-based research into GPs' decisions rarely considers the relationship between decision difficulty and quality. Research synthesis would be facilitated by systematic development and description of scenarios, and by uniform methodological terminology.

Prediction of mixed, formula and breast feeding intentions and behaviour: Findings from Born in Bradford

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Background: Scant research has explored motivations for mixed-feeding. Here, factors predictive of breast (BFI), mixed (MFI) and formula (FFI) feeding intentions and their influence on subsequent behaviour were explored. **Methods:** N=476 women completed a Theory of Planned Behaviour questionnaire at 28weeks gestation, and reported length of breastfeeding at 6 months. Regressions explored factors predictive of feeding intention group (BFI, MFI and FFI) and prospective breastfeeding. **Findings:** MFI and FFI intenders reported worse attitudes towards breast-feeding compared with BFI. MFI also reported stronger descriptive norms to mix-feed and breast-feed, and higher self-efficacy to mix-feed. MFI stopped breastfeeding at 1.5 months, BFI at 2.5 months and FFI at 3 days. Breast-feeding duration was associated with negative formula and positive breastfeeding intentions, negative attitudes to formula-feeding, and perceived pressure from families to mix-feed. **Discussion:** MFI are at risk of terminating breastfeeding early. Understanding predictors can inform appropriate interventions for this distinct group.

The need for comprehensive cardiovascular rehabilitation following stroke: Findings from the ASPIRE-S study

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Background: Provision of stroke rehabilitation remains suboptimal in Ireland, with a primary focus on restoration of physical function. This study aimed to explore the psychological sequelae of stroke in order to provide evidence for multidisciplinary stroke rehabilitation and secondary prevention initiatives. **Methods:** 260 home assessments at six months post-stroke were conducted. Patients were assessed on stroke knowledge, cognition, service provision and psychosocial measures as part of a clinical assessment. **Findings:** Sixty-two percent did not receive enough psychological support. Thirty percent could not name any stroke risk factors post-stroke, with 32% unable to define a stroke and 73% unable to define a Transient Ischaemic Attack. Results indicate a moderate prevalence of depression (25%), anxiety (32%) and cognitive impairment (50%). **Discussion:** Multidisciplinary rehabilitation and secondary prevention for stroke is required, even in the absence of physical impairment, given the emergent profile of significant psychological difficulty and poor knowledge post-stroke.

Parental mental well-being is worse with dialysed adolescent patients and lower socioeconomic status of the family

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Background. The aim of this study was to assess parents' mental well-being in association with treatment modality of adolescents with end-stage renal disease (ESRD) and whether their well-being was affected by the family's socioeconomic status (SES). **Methods.** Parents (mean age 41.1 years; 79.3% mothers) of all adolescents (n=29) in Slovakia treated with dialysis or after kidney transplantation (ages 11-19 years, mean 6.0±2.63; 27.6% girls), answered questions on stress (PSI, GHQ-12), anxiety and depression (HADS), affluence (FAS), age, gender and SES (household income, education). Data were analysed using linear regressions with the bootstrap procedure. **Findings.** All parents of adolescents with ESRD experienced moderate levels of stress and relatively good psychological well-being, although parents of dialysed adolescents reported worse well-being. Parents' highest education affected their level of anxiety. **Discussion.** Parental mental well-being is worse if adolescents are treated by dialysis rather than after transplantation. Support should therefore be targeted at these parents.

Longitudinal changes in psychological distress in childhood cancer survivors

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Background: We aimed to: 1) describe psychological distress in childhood cancer survivors at two time points; 2) evaluate predictors for significant distress. **Methods:** We included 754

childhood cancer survivors aged <16 years when diagnosed, who had survived ≥ 5 years and were aged 16+ years at time of study. They received two questionnaires (3 years apart). Psychological distress was measured with the Brief Symptom Inventory-18 (BSI-18) assessing somatization, depression, anxiety and a global severity index (GSI). Participants with a T-score ≥ 57 were defined as significantly distressed. We analyzed change over time using chi2-tests, t-tests and generalized multilevel regressions models. **Findings:** Mean psychological distress was higher at time 2 than time 1 ($p < 0.001$), and more survivors were significantly distressed ($p < 0.001$). Adjusted multilevel regression analyses showed a higher risk for: females, survivors with a migration background, reporting late effects or attending psychological care. **Conclusion:** Regular psychosocial screening should be included in long-term follow-up.

The relationship between exercise goals and body image concerns: From the self-determination theory perspective

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Background. Self-determination theory posits that people exercise either for relatively extrinsic or intrinsic exercise goals. The aim of the study was to examine the relationship between exercise goals and body image concerns in fitness centers' exercisers. **Methods.** Exercisers from 18 to 59 years ($N = 238$) participated in the study. Exercise goals were assessed using Motives for Physical Activity Measure Revised (MPAM-R, 1993) with the five scales included: Interest/Enjoyment, Competence, Social, Fitness (all intrinsic) and Appearance (extrinsic). Body image concerns were measured by Appearance Orientation (AO) and Overweight Preoccupation (OP) scales from Multidimensional Body-Self Relations Questionnaire (MBSRQ-AS, 1990) and Social Physique Anxiety Scale (SPAS, 1989). **Findings.** Appearance and Social goals significantly predicted higher AO, OP and SPA. Intrinsic goals were not related to AO, but Interest/Enjoyment goals significantly predicted lower OP and Competence significantly predicted lower SPA. **Discussion.** Understanding relationship between goals of exercising and body image concerns should foster health psychologist to induce intrinsic motivation in exercisers.

Utilising inductive approaches and service-user consultation to develop a model for diagnostic communication in mental health

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Background: Transparent diagnostic communication is widely accepted and modelled in oncology. This is practiced less frequently in mental health, and service-user involvement in the development of diagnostic communication models is lacking. **Method:** An Australian two-part study utilising inductive design examined the elements considered to be best practice when communicating psychiatric diagnosis. The first was a thematically analysed semi-structured qualitative interview conducted with service-users ($n=45$). The follow on study ($n=100$) utilised a 91-item questionnaire. **Findings:** Study 1: Key themes identified that health professional personal qualities were paramount, as were open information sharing, holding hope, utilising collaborative approaches, incorporating individualised and holistic supports, and encouraging peer support. Study 2: Established further support for the initial findings and identified gaps in current practice. **Discussion:** A model for communicating diagnosis has been produced; this, in turn, has informed

different stakeholder studies. At a macro level, incorporating service-user viewpoints can be a key tool to generate best-practice within mental health and health-psychology communications research.

A systematic review with meta-analysis of the association between conscientiousness and medication adherence

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Background. Approximately a quarter to a half of all people fail to take their medication regimen as prescribed i.e. (non-adherence). Conscientiousness, from the five-factor model of personality, has been positively linked to adherence to medications in several recent studies. **Purpose.** This study aimed to systematically estimate the strength and variability of this association across multiple published articles and to identify moderators of this relationship. **Method.** A literature search identified 16 studies (N=3,476) that met the study eligibility criteria. Estimates of effect sizes (r) obtained in these studies were meta-analysed. **Results.** Overall a higher level of Conscientiousness was associated with better medication adherence (r = 0.15; 95% CI 0.09, 0.21). Associations were significantly stronger in younger samples (r =0.26, 95% CI 0.17, 0.34; k=7). **Conclusion.** The small association between Conscientiousness and medication adherence may have clinical significance in contexts where small differences in adherence result in clinically important effects.

Implementing action research in hospital settings: A review

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Background: Action Research (AR) represents a collaborative and participatory methodological approach suitable for generating knowledge and practical solutions in specific settings. This narrative review synthesizes the findings of studies, which attempted to improve patients' quality of care (QoC) or bring organizational changes in healthcare settings, using AR. **Methods:** Studies were identified by means of a systematic search in academic databases from 2000 up to 2012. **Findings:** Eighteen studies satisfied the inclusion criteria. The review revealed the heterogeneity of the studies in terms of objectives and methodology. Similarities and differences across studies emerged in every stage of AR process; namely problem identification, planning, and implementation. Limitations and enablers of AR implementation are discussed and suggestions for improvement proposed. **Discussion:** The new knowledge derived from the research synthesis suggests that AR can be a promising strategy for promoting organizational change and QoC in health care settings.

Constructing the health doctor: Critical reflection of media representation of women in historical Lifebuoy advertising

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Background: This paper discusses the historical narrative found at the nexus of the gender, health and media discourse during the critical discursive analysis of Lifebuoy advertising campaigns

during the 1920s. **Methods:** 24 Lifebuoy “Mother as Health Doctor” advertisements were identified using purposive sampling. These advertisements were extracted directly from Lifebuoy’s archives or through web based searches. Influenced predominately by a Foucauldian approach to discursive analysis complementary to Critical Health Psychology, threads from linguistic and semiotic discursive analysis were also incorporated. Though deriving from divergent theoretical paradigms, a mixed method discursive analysis proved a pre-requisite to remaining sensitive to the data genre being analysed. **Findings and Discussion:** The results provide a historical mis-en-scene that can be traced to discourses that shape and infuse the brand’s contemporary hygiene interventions in developing countries. Longevity of the socio-political discourses manifest in the prescription of gendered responsibility and protection of child health in the construction of mothers is consistently evidenced.

Qualitative and quantitative evidence for finding compassion after cancer

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Background: Many psycho-oncology studies use posttraumatic growth (PTG) measures designed for general trauma experiences, and as such they may not take into account life changes associated with a health-related context. **Method:** Study 1, a thematic analysis of written narratives (N = 209), emphasised cancer survivors’ newfound compassion. Study 2, with 504 prostate cancer survivors, measured the Posttraumatic Growth Inventory including five additional items derived from Study 1 to represent increased compassion. **Findings:** A Principal Components Analysis revealed a six-component structure after deleting eight items. Components related to compassion, new possibilities, relating to others, personal strength, appreciation of life, and spiritual change. Compassion accounted for 48.9% of variance, with the overall model accounting for 79.9% of variance. Strong factorability, internal consistency, and convergent validity were demonstrated. **Discussion:** The salience of newfound compassion after cancer was demonstrated. This research has important implications for accurately assessing the post-diagnosis trajectory of adjustment after cancer.

High-fat snacking in Greek high-school students: A prospective application of the theory of planned behaviour

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Background: Given the very limited data, this study aimed to determine the applicability of the Theory of Planned Behaviour (TPB: Ajzen, 1991) in the study of high-fat snacking in Greek high-school students, whilst taking into consideration gender and culture-relevant factors. **Methods:** Predictor variables were measured at Time 1 (N=147), and actual high-fat snacking a week later (N=129). Additionally, three focus groups (N=28) were conducted to elucidate culture-relevant factors influencing high-fat snacking. **Findings:** The TPB variables predicted 19.6% of intended high-fat snacking, with attitudes being the strongest predictor ($\beta = .40$, $p < .001$). Moreover, the model predicted 35% of subsequent high-fat snacking. Gender did not influence intended or subsequent high-fat snacking. Of the culture-relevant influences, the involvement of

grandmothers and the 24-hour easy access to snacks at kiosks were particularly salient. **Discussion:** The TPB can be used to study high-fat snacking among Greek students, whilst accounting for culture-relevant influences.

The role of subjective well-being in healthy eating behaviours

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Background: Poor diet is associated with obesity, cardiovascular disease and cancer; which are among the leading causes of death worldwide. A causal relationship between subjective well-being (SWB) and positive health outcomes (including longevity) has been established, although little is known about the underlying mechanisms. Further, few studies have specifically focused on the relationship between SWB and eating behaviours. This research examined the role of SWB in the prediction of fruit and vegetable (FV) and saturated fat (SF) consumption, within a Theory of Planned Behaviour (TPB) framework. **Methods:** Two predictive studies were conducted. In study 1 (n=72) measures of SWB, TPB variables and FV consumption were administered. In study 2 (n=96) measures of SWB, TPB variables and SF intake were administered. **Findings:** SWB contributed significantly to the variance explained for FV consumption (4.3%). Perceived behavioural control and happiness were found to be significant unique predictors of FV consumption. While subjective well-being variables were not significant unique predictors of SF consumption, these variables contributed an additional 2% to prediction, and this model was significant. **Discussion:** The addition of SWB to the TPB is novel and the results partially support the potential of SWB to improve the prediction of these behaviours. Implications for the role of SWB in eating behaviours, as well as for the inclusion of strategies to enhance SWB in interventions are discussed. Future research avenues are needed to replicate and extend these preliminary findings before such a framework may be translated into an intervention are proposed.

HPV and vaccine-related perceptions among men who have sex with men (MSM): A systematic review

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Background: Human Papillomavirus (HPV) vaccine could prevent HPV-related cancers and genital warts among MSM. Consequently, it is crucial to understand which psychological factors contribute to HPV vaccine acceptability. **Methods:** A search of ten databases identified 26 articles examining HPV-related perceptions among MSM. Thirteen papers were excluded due to duplication or insufficient MSM subjects. **Results:** Thirteen studies involved 4539 MSM. Subjects were mainly over 26 years old, had little HPV knowledge and low to moderate risk perceptions of developing HPV-related diseases. HPV vaccine acceptability ranged between 36% and 86%, with moderate intentions for uptake reported. Around 78%-93% would be willing to disclose their sexual orientation to healthcare providers to enable them to receive the vaccine. **Conclusion:** MSM are largely receptive to HPV vaccination. Further research is needed, using theoretical frameworks, to examine which factors contribute to vaccine acceptability and how best to target young MSM, who would benefit most from HPV vaccination.

Predictors of quality of life enjoyment and satisfaction among HIV positive individuals in South Africa

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Background: A key objective was to determine the predictors of the quality of life of individuals who are HIV positive and on anti-retroviral treatment or being prepared for it. **Methods:** The study was a quantitative, cross-sectional one using a purposive sampling technique. 121 participants were recruited from a community clinic. The following assessments were administered: a Demographic Questionnaire, the Hospital Anxiety and Depression Scale, and the Quality of Life Enjoyment and Satisfaction Questionnaire. **Findings:** The sample characteristics were: mean age of 31.6 years, predominantly female (74.4%), co-existing medical conditions (28.5%), on ART (66.7%), psychological distress (50.4%), and poor scores on the work, school work and leisure domains of the Q-LES-Q at 10.80%, 4.57% 19.05% respectively. Significant predictors of quality of life were: taking ART, having a co-existing medical condition and psychological distress. **Discussion:** Mental health care should be an essential component of the treatment for HIV positive individuals.

Evaluation of a tailored smoking cessation tool in primary care: The iQuit in Practice trial

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Background: Objectives: to assess the acceptability and short-term effectiveness of the iQuit intervention, a self-help smoking cessation programme initiated by nurses/healthcare assistants. **Methods:** Smokers receiving pharmacotherapy-orientated smoking cessation support at their GP surgery (N=602) were randomised to receive either the iQuit intervention (tailored advice report plus 90-day programme of tailored text messages) or usual care only. Abstinence (self-reported 2-week point prevalence abstinence) and acceptability was assessed at 2 and 6-months follow-up respectively. **Results:** Most iQuit arm participants found the advice report (79.2%) and text messages (64.1%) useful. A minority stopped the text support prematurely (18.9%). There were no significant between-group differences in abstinence (control: 40.3%, iQuit: 45.2%; odds ratio 1.22 [95% CIs 0.88–1.69]). **Discussion:** While the iQuit programme demonstrated acceptability, its impact on abstinence is unlikely to be substantial over and above usual care. However, a small increase in abstinence in line with that observed could have clinical significance.

Using exercise equipment in public spaces: Observations and survey assessing use and perceptions

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Background: Municipalities around the world have erected exercise equipment in residential areas in recent years as an intervention availing exercise resources to citizens. The study

examined behaviors and perceptions using both observation and survey methodologies, working within the Leisure Constraints and Negotiation Models in the literature on leisure time physical activity. The study focused on the type of constraints - personal, interpersonal and structural, motivation, self efficacy, and TTM stage. **Methods:** Observations (N=115) were carried out in residential and city-wide parks located in 20 Jewish and Arab communities in Israel. Number of equipment users and non-users was recorded, as well as gender, age of users and time of day. Self-administered questionnaire was administered to 278 exercise equipment users in a cross sectional survey, tapping constraints, motivation, self efficacy, TTM stage, and characteristics of physical activity. **Results:** The observations showed more users in Arab than in Jewish communities, more users in the afternoons and evenings than in other timings, and no differences in gender or age as a function of the location of the parks. Constraints, efficacy and TTM stage predicted the use of the exercise equipment. Intra-personal constraints were bigger than interpersonal or structural, with men and older people having more intra-personal constraints. Motivation was higher among women and people higher in their TTM stage. TPB and constraint constructs predicted behavior with similar degree of success. **Conclusions:** The public availability of exercise equipment is more crucial in poorer Arab communities. The more predictive type of constraint is intra-personal, considering the removal of financial and proximity constraints by placing exercise equipment in residential areas. Focusing on the constraints variables gives policy and decision makers input on effectiveness of the intervention.

A theory-based online intervention to promote health behaviour in new university students: One-month follow-up data

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Background: Too few young people engage in behaviours that reduce the risk of morbidity and premature mortality. An online intervention, based on self-affirmation, the theory of planned behaviour and implementation intentions, targeted fruit and vegetable consumption, binge drinking, smoking and exercise during the transition to university. **Methods/Design:** New students (N=1448) were randomly allocated to an online health-behaviour intervention (U@Uni) or a measurement-only control condition two weeks before starting university. Participants were followed-up one month after starting university. **Results:** At follow-up, participants in the intervention group ate more fruit and vegetables, $F(4, 883) = 24.52, p = .05$, and were less likely to attend a freshers' drinking event, $B = .386, Wald(1) = 3.90, p = .048$, than participants in control group. No significant effects were found on exercise and smoking. **Discussion:** The findings highlight the potential of online interventions targeting students during their transition to university.

Cost-effectiveness of adherence enhancing interventions: A systematic review

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Background: In the light of the acclaimed costs of non-adherence to medical regimen and the pressure to reduce unnecessary healthcare expenditures, a systematic review that assesses

experimental evidence for cost-effectiveness of adherence enhancing interventions would be timely. **Methods:** Randomized controlled trials were included that performed a full economic evaluation of adherence interventions. **Results:** Fourteen studies were included, conducted in the US (n=6) or Europe (n=8). Four used a societal perspective and ten narrower perspectives. The quality of economic evaluations was moderate and the risk of bias varied considerably between trials. Ten studies interventions were more costly and more effective than usual care, and four were less costly and more effective. **Conclusions:** There was only tentative evidence of potential cost-effectiveness of adherence programs, probably because most interventions examined were not effective, had methodological limitations, and used a narrow perspective or a brief time horizon.

Improving adherence to medication in stroke survivors: A pilot randomised controlled trial

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Background. This pilot randomised controlled trial aimed to increase adherence to preventive medication in stroke survivors using a brief, personalised intervention which addresses both non-intentional and intentional non-adherence. **Methods.** Sixty-two stroke survivors were randomly allocated to either: a two-session intervention aimed at increasing adherence via a) introducing an implementation intentions plan to help establish a better medication-taking routine and b) eliciting/modifying any mistaken patient beliefs regarding medication/stroke; or control. Primary outcome was adherence to anti-hypertensive medication measured objectively over three-months using an electronic pill-bottle. **Findings.** Fifty-eight people used the pill-bottle and were analysed as allocated; 54 completed treatment. The intervention resulted in 10% more doses taken on schedule (Intervention 97%; Control 87%, 95% CI for difference (0.2-16.2), p=.048). **Discussion.** A simple, brief psychological intervention in stroke survivors can improve medication adherence, and thus patient outcomes. This effect was over and above any effect of mere measurement or increased contact.

A brief psychological intervention to reduce stress-induced eating: The self-generated volitional help sheet

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Background. Stress may indirectly contribute to cardiovascular disease risk by producing deleterious changes in diet such as increasing high fat food intake. This study, using a randomised controlled, daily diary design, tested the efficacy of a modified Volitional Help Sheet (VHS) to reduce stress-induced eating. **Method.** Two hundred and two participants were randomised to complete a self-generated VHS with explicit instruction to link stressful situations with healthy snack alternatives (experimental condition) or a VHS without a linking instruction (control condition). Daily diary reports of unhealthy and healthy snacks were completed for 7 days post-intervention. **Findings.** As predicted, hierarchical linear modelling found a cross-level interaction indicating that the effects of daily stressors on unhealthy snack intake was significantly reduced in the experimental but not in the control condition. **Discussion.** The self-generated VHS appears to be a promising intervention that may help to protect against the effects of stress on health outcomes.

What does 'place' in 'ageing in place' mean for informal caregivers?

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Background: Do informal caregivers of community-dwelling and institutionalized elderly differ and what are determinants of their quality of life? **Methods:** 476 pairs of informal caregiver and care recipient provided caregiver information on: quality of life (CarerQol-7D, VAS), objective burden (care tasks), self-rated subjective burden, and care recipient information on: (I)ADL problems, formal homecare use, and living arrangements. **Findings:** Caregivers of community-dwelling elderly provide more often household and personal care, and have more mental health problems. Only for this group, caregiver satisfaction ($b=.306$; 95%CI=.023 – .590) and providing personal care ($b=-.200$; 95%CI=-.386 – -.014) are related to higher and lower quality of life, respectively. For both caregiver groups mental and physical health problems are related to lower quality of life. **Discussion:** Because of differences in determinants of caregiver quality of life, support programs aimed at increasing quality of life and sustaining informal care should be tailor-made for living arrangements of the care recipient.

Short-term effects of statutory total smoking ban in Finnish schools

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Background: Schools are central actors in smoking prevention. Underage smoking in Finnish schools was prohibited 1977. In 2010, smoking in school premises was completely banned. We study ban enforcement and short-term effects of total ban. **Methods:** National School Health Promotion Study for secondary (SS:14-16yrs), upper secondary (USS:16-18yrs) and vocational school (VS:16-20yrs) students, from 2008/2009 (N=199757) to 2010/2011 (N=192414). **Findings:** Daily smoking increased slightly in VS (39% to 40%) and USS (10->11), no change in SS (15). Perceiving smoking allowed in school decreased significantly (VS:86->62, USS:75->65, SS:9->8), as did perceiving restrictions rarely supervised (USS:52->48, VS:51->45, SS:22->18). Among weekly smokers, smoking daily in school premises decreased (VS:74->61, USS:39->37, SS:38->37), as did reports of personnel smoking (VS:46->33, USS:11->10, SS:15->13). **Discussion:** Schools differ in smoking prevalence and enforcement of bans. Total ban had positive effects on student and personnel smoking in school area and student perceptions of smoking bans and their supervision.

Sexual health and Alzheimer's disease: Distress among the caregivers

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Sexual health has become a new social requirement in aging. In this paper, we try to understand the representations of healthcare professionals, in regard to the sexual expressions of Alzheimer patients. This research draws upon data from ten semi-structured interviews with healthcare professionals. The transcripts were analyzed using a qualitative approach inspired by the grounded

theory. The coding procedures produced five thematic categories: couple, heterosexuality, fidelity, reciprocity, intimacy. In institutions, Alzheimer's patients often have sexual behaviors that challenge these norms that healthcare professionals abide by. These behaviors, called for example "hypersexuality" are seen as inappropriate and create distress among healthcare professionals. That may explain why they are controlled and reduced through a process of medicalization of sexuality. These practices can create professional and moral dilemmas: how to conciliate protection against abuses and behaviors considered as threatens to human dignity, and the liberty to choose their partner and their sexual preferences?

A questionnaire study on the work and power of acute care managers in quality of care

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Background: Little is known about the work and contributions of managers within the context of quality care. This study identifies their activities and its contextual factors with theoretical constructs. **Methods:** A questionnaire exploring managerial quality and safety-related activities, attitudes, learning and power was completed by 100 middle managers and 60 clinical staff from 10 UK acute Trusts. **Findings:** Responses showed many quality/safety activities regularly undertaken by managers, yet revealed that they sometimes prioritise finance over patient safety (35% self reports/84% staff reports), have low reinforcing powers, little formal learning, and spend less than half of their time on quality. Nonparametric comparisons showed that staff rated their managers' safety (attitudes/actions) score significantly lower (mean rank=33.32) than reported by the managers (mean rank=66.12), $U=221.500$, $P<.001$. **Discussion:** This study indicates that managers can contribute to quality care, but are not provided with sufficient resources and powers to do so. **Findings** suggest how managers can improve patients' experiences.

Can the extended parallel process model predict attention to health information? Suggestions for health campaigns

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Background: The Extended Parallel Process Model (EPPM) has been used to demonstrate the importance of perceived efficacy in moderating the relationship between perceived risk and preventative health behaviours. However, the use of this model to predict attention to health messages has received little consideration. The aim of this research was to test the utility of the EPPM in predicting attention to health information. **Methods:** Community participants ($N=330$) read information about the threat of car crash or coronary heart disease before completing a surprise recall task. Participants also responded to questions about perceived risk and efficacy. **Findings:** Contrary to expectations, the EPPM variables were not related to recall of information for either health threat (all p 's $>.05$). **Discussion:** Affective measures of vulnerability may be more suitable in predicting attention to health messages. In addition, the relationship between perceived efficacy and attention needs further investigation and has implications for the design and dissemination of health campaigns.

The psychosocial adjustment process after spinal cord injury: Empirical examination of adjustment models

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Background: The objective of this study is to examine the adjustment process after spinal cord injury (SCI) by testing and comparing several adjustment models in relation to different adjustment outcomes. **Methods:** Cross-sectional data collection within Swiss Spinal Cord Injury Cohort (SwiSCI) with a sample size of N = 507. Measures used included: General Self-Efficacy Scale, Purpose in Life Scale, Brief COPE, Appraisal of Life Events Scale, WHO-QOL, Hospital Anxiety and Depression Scale and the USER-Participation. Data was analyzed using structural equation modeling. **Findings:** Higher self-efficacy and purpose in life are associated with better adjustment after SCI. Coping plays a minor role in the adjustment process. Direct and indirect effects of psychological resources on adjustment outcomes were identified in the models. **Discussion:** Results indicate that psychological resources might play a key role in the SCI adjustment process. Further examination of the adjustment process with longitudinal studies is needed to infer causality.

Motivational interviewing effect on ischemic heart disease patients: A literature review

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Background: Usual counseling methods seeking healthy life for ischemic heart disease patients are insufficiently effective. Motivational interviewing (MI) has been found effective in fostering change across a wide range of health behaviors. The objective of this literature review is to find out if MI is effective for cardiac patients. **Methods:** Papers published from 2003 onwards were reviewed with regard to scientific context. **Findings:** MI has been successfully applied with cardiac patients. There is reliable evidence that heart failure patients who received MI had better outcomes for the amount and type of physical activity than those who were given advice only. The evidence is less convincing for the use of MI in smoking cessation. MI should be considered for patients with cardiac disease, in particular for those who need to make lifestyle changes such as diet, exercise, alcohol and medication adherence. **Discussion:** Could MI change patients' reactions to stress?

A longitudinal cohort study on the association of surgical complications with patients' psychological well-being and psychosocial factors

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Background: This study aimed to identify the impact of surgical complications on patients' psychological well-being and to test the clinical and psychosocial factors that predict this impact.

Methods: A prospective, cohort, longitudinal design was used. Patients undergoing major surgery completed a questionnaire on their emotional well-being and various psychosocial factors before and after their surgery. Complications and other clinical information were recorded from medical records. **Findings:** Longitudinal linear mixed models showed that after controlling for baseline well-being and clinical parameters the occurrence of any complications (minor or major) significantly predicted higher levels of depression when patients returned home ($p < .05$) while the occurrence of major complications significantly predicted higher levels of anxiety at the same time ($p < .05$). Patients' coping strategies and perceptions of support significantly improved the prediction of post-operative anxiety and depression ($p < .05$). **Conclusions:** The findings provide evidence that surgical adverse events compromise patients' post-operative well-being above and beyond other factors and demonstrate the importance of patients' coping and perceived social support as predictors of these psychological effects.

Introducing new biotechnology into society: Canvassing parent's opinions to possible newborn DMD and FXS screening

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Background: Increased technological possibilities make it possible to early identify 'untreatable' childhood-onset conditions, e.g. DMD and FXS. This could prevent the diagnostic odyssey, and provide timely genetic counselling. Consequently, parents might not be able to enjoy the first symptom-free period. This study investigated the opinion of (prospective) parents about possible expansion of the newborn screening program with DMD or FXS, and assessed developmental worries during the first year. **Methods:** Cross sectional study, using a structured Internet questionnaire. **Findings:** 998 respondents filled out the questionnaire, 107 had a child with FXS, and 77 a son with DMD. Parents favoured testing newborns for FXS and DMD. Parents of affected children had significantly more developmental worries during the first year. Parents of FXS children worried most. **Conclusions:** A true carefree period for parents of affected children seems not to exist. 'Good parenting' by far outweighed the possibility of enjoying a carefree period.

A longitudinal approach of time perspective among young women with breast cancer

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In the context of cancer, time perspective represents an important tool for estimating how disease experience affects several dimensions of life. **Methods:** A sample of women included in the French National Health Insurance Fund file with a diagnosis of primary non-metastatic breast cancer, aged 18-40 were asked to participate in a 5-year follow-up program. **Results:** 101 women answered both time perspective questionnaires, and no significant evolution was found between 16 and 28 months. Older age and perceiving follow-up visits as a source of relief were both associated with a higher future time perspective score. **Conclusion.** These longitudinal data on time perspective highlight the fact that certain characteristics of the women included affected two time

perspective dimensions. Moreover, disease experience, particularly in terms of seriousness of disease and patient-provider relationship, was associated with time perspective changes. These results provide important information about optimizing follow-up of women with breast cancer.

Linking research and intervention: A methodological toolkit for researchers and community actors willing to engage in research collaboration

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Background: Emerging issues in HIV prevention research and strategic orientations such as a stronger focus on most-at-risk populations progressively led to greater interest in community-based research (CBR) and more globally in researcher/community actor (CA) collaborations. Beyond CBR definition issues, an increasing number of researchers and CA are now looking for practical guidance to work together. The objective of the project was to develop a toolkit for collaborative research. **Methods:** Qualitative data was collected through interviews with various stakeholders involved in collaborations (researchers, CA, donors, and technical partners) and observations of several research projects in various countries. **Findings:** The toolkit targets researchers and community actors engaged or willing to engage in collaboration. It explores the issue of collaboration in biomedical and social science research and in interventional research. **Conclusions:** From theory to implementation, the toolkit should support researchers and community actors to engage in collaboration in order to inform policy programs and develop tailored field interventions. Increased support from donors and technical partners is needed to encourage the development of this kind of research.

Factors shaping condom use among South African university students: A thematic analysis.

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Background: This study explored culture and context-relevant factors shaping condom use in South African university students. **Methods:** Twenty one-to-one, semi-structured interviews were conducted (15 female, five male, aged between 18 and 25, representing six racial/cultural backgrounds). Data were coded using NVivo and thematically analysed, following guidelines of Braun and Clarke (2006). **Findings:** Condom use was transient and often unrelated to disease prevention. Condom use was impeded by: intimacy concerns, whereby condoms were seen as obstacles to closeness; gender-based power imbalances; stigma attached to planning for intercourse and sexuality; religious dogmas advocating (female) sexuality and (premarital) intercourse as shameful; context of emotionality and significant other influence; government policies regarding condom and pill pricing/ promotion, as well as religious toleration. **Discussion:** South African condom promotion efforts need to address issues of intimacy, gender, and religion/religiosity. This notwithstanding, interventions focusing on the individual may have little impact if the wider structure remains unchanged.

Substance abuse prevention in Cape Town's informal settlements: Local trainers' perspectives

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Background: Alcohol and other drug (AOD) abuse is rife in South Africa. This study focused on understanding local barriers and facilitators to AOD misuse and prevention. The findings combined with reviewed literature could create a more effective AOD misuse prevention programme for Cape Town's peri-urban youth population. **Methods:** Focus groups were used for data collection, and transcribed data was analysed using thematic analysis. **Findings:** The main themes which emerged were: Status, Stress Relief, Government, Community, Safe Recreation, Gender, Safe Spaces, HIV/AIDS Stigma, and Exposure. **Discussion:** For the production of adequate health and social care there is a need for proactive development and use of local psychosocial knowledge alongside the prudent use of culturally appropriate external models. Despite the general processes common to illness experiences in different global contexts it is important to pay particular attention to the processes rooted in South Africa's current realities (such as health and social inequalities).

Resilience in men with prostate cancer: Relationship between resilience, social support, and distress

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Prostate cancer (PCA) is one of the most frequently diagnosed cancers. While heightened levels of distress have been reported among PCA patients there is a group of patients that show low levels of distress. Therefore, it is important to find out what protects those men. In this research, we examined if resilience and social support were protective factors for distress. Participants were comprised of 44 PCA patients. Baseline questionnaire assessing resilience, social support and distress was administered around the time of diagnosis, and distress was assessed again three and six months later. Repeated measures ANCOVA showed that PCA patients higher in resilience reported less distress at both the three and six months follow-up assessments. High social support was not associated with less distress. Result suggests that resilience is protective factor for distress among PCA patients. This finding raise the possibility that intervention aimed at increasing resilience might help PCA patients.

Patients' drawings of blood cells reveal patients' perception of sickle cell disease

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Background: Sickle cell disease (SCD) and thalassemia are rare but chronic diseases. Currently, there are no data available on the illness perceptions of these patients. We therefore aimed to explore the illness perceptions of patients with SCD and thalassemia in relation to other chronic

disorders. Furthermore, we aimed to explore relations between the novel drawing test and illness perceptions. **Design and methods:** We conducted a cross-sectional study including 17 patients with either SCD or thalassemia. Patients' illness perceptions were assessed by the Brief Illness Perception Questionnaire (IPQ) and the drawing test. Brief IPQ scores were compared with reference groups (i.e. patients with asthma or lung cancer). **Results:** Patients with SCD and patients with thalassemia perceived their blood disorder as being more chronic and as having more severe symptoms than patients with either asthma or lung cancer. In the drawings of these patients, a greater number of blood cells drawn was negatively correlated with perceived personal control ($p < 0.05$) indicating that a greater quantity in the drawing is associated with more negative or distressing beliefs. **Conclusions:** Patients with SCD or thalassemia perceive their disease as fairly threatening compared with patients with other chronic illnesses. Drawings can add additional insight into how patients perceive their illness by offering free-range answers.

The influence of coping modes on preclinical atherosclerosis

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Objective: To examine the influence of coping on cardiovascular health. Previous findings suggest that repressive coping could be associated with cardiovascular diseases. **Methods:** Participants were 124 healthy individuals. Cognitive avoidant and vigilant coping was assessed via questionnaire, thus allowing to deduce different coping modes. Individuals who score comparably high on cognitive avoidance but low on vigilance are deemed repressive copers. The intima media thickness (IMT) as a surrogate marker of preclinical atherosclerosis was measured by means of high-resolution duplex sonography. Hierarchical regression analyses were calculated to predict IMT by biological, demographic, lifestyle and coping variables. **Results:** After controlling for blood lipids and other potential confounds, IMT was unrelated with repressive coping. However, participants showing both vigilant and avoidant coping strategies (so-called high-anxious copers) exhibited higher IMT as compared to other individuals. **Conclusions:** Repressive coping was unrelated with preclinical atherosclerosis. Conversely a high-anxious coping disposition may increase risk for cardiovascular diseases.

Acceptability of very low energy diets in type 2 diabetic individuals: A systematic review

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Background: Very low energy diets (VLED) represent the most rapid, non-invasive way of losing weight and have been shown to assist reversal of type 2 diabetes (T2DM). This review aimed to explore patient experience, adherence to and efficacy of interventions to support adherence in T2DM individuals on VLED. **Methods.** Databases, reference lists and authors in the field were consulted. Controlled trials comparing different intervention packages including VLED or comparing VLED with other conditions were included, as well as qualitative studies of obese individuals with T2DM undergoing VLED. Results. Four randomised and 3 non-randomised controlled trials of various methodological qualities, involving 311 participants were included. Attrition rates in VLED conditions (0-16%) were similar to, or smaller than in other conditions (11-16%). **Conclusion.** VLEDs are acceptable among individuals with T2DM. However, qualitative evidence

is scarce and generalisability of attrition rates or efficacy of interventions supporting adherence beyond controlled research studies is uncertain.

Self-regulatory variables predict physical activity among older Costa Rican adults

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Background: Several volitional self-regulatory variables, such as Self-efficacy, Planning and Action Control, have been proposed to explain health behavior change. **Method:** A longitudinal study was conducted among Costa Ricans (≥ 50 years old, $N=58$) who took part in Educational Programs. The contribution of self-regulatory variables to explain physical activity was examined. Action Planning (T1) and Action Control (T2) were specified as sequential mediators between Action Self-Efficacy (T1) and frequency of Physical Activity (T2). **Findings:** A significant regression model provides support for the self-regulatory mechanism that accounts for changes in physical activity. **Discussion:** Several volitional self-regulatory variables contribute to explain health behavior change in a Costa Rican Sample.

Psychological functioning and quality of life in Colombian caregivers of individuals with dementia

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Background: The aim was to examine psychological factors and quality of life (QOL) in caregivers with dementia. **Methods:** 102 Colombian caregivers and 107 controls completed the Satisfaction with Life Scale (SWLS), Patient Health Questionnaire (PHQ-9; depression), The Zarit Burden Interview (ZARIT), Interpersonal Social Support Evaluation List (ISEL-12), and QOL (SF-36). **Findings:** 42% of caregivers experienced mild to severe depression and 65% had mild to severe burden, but 88% were satisfied or extremely satisfied with life. Controlling for gender, education, and socio-economic status, caregivers experienced worse QOL than controls on all the sub-scales of the SF-36, as well as higher depressive symptoms and burden ($p's < 0.001$). **Discussion:** Regression models for caregivers, controlling for socio-demographic characteristics, indicated that depressive symptoms predicted worse QOL for all sub-scales ($p's < 0.001$). Psychological problems are common in Colombian caregivers, and especially in the case of depression, can affect QOL. Cognitive-behavioral strategies to improve depressive symptoms in this population might enhance QOL.

Factors associated with healthcare utilisation among British Chinese

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Background: The Chinese are known underutilisers of formal health services in the UK. The present study examines use of traditional Chinese medicine (TCM) and Western medicine (WM) among Chinese migrants, and the impact of health behaviours on the utilisation of formal health

services. **Methods:** A mixed methods approach was used. 272 participants completed a questionnaire measuring health behaviour, cultural attachment and theory of planned behaviour constructs. Seventy three respondents completed in-depth interviews. Findings were analysed using regression and grounded theory analysis. **Findings:** Most respondents reported using WM, only 25% of respondents reported using TCM in the UK. Although respondents had little experience of TCM in the UK, they reported receiving TCM packages from relatives overseas, which may go some way to explain the medical pluralism of Hong Kong Chinese migrants in the UK. **Discussion:** Better understanding of the influence of traditional cultural and health beliefs could enable more culturally appropriate and effective health provision.

Coping with symptoms of colorectal cancer: Socio-demographic differences in strategies that influence care seeking delay

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Colorectal cancer (CRC) symptoms can be vague and vary in severity, intensity, type, and timing. To describe coping and examine socio-demographic differences prior to seeking care, 244 recently diagnosed CRC patients were administered semi-structured interviews (analyzed using grounded theory) and Brief COPE questionnaires. Common coping responses were to wait-and-see, self-treat, and rationalize symptoms. Females were more likely to seek medical care, while males 'wait-and-see' and engaged in self-treatment. African Americans were more likely to self-treat, especially via lifestyle changes and dietary supplements, as were those with lower incomes and/or on Medicaid. Self-treatment was associated with greater time to see a physician (appraisal delay; AD), as was rationalizing, avoidance, distraction, or denial. Higher Brief COPE planning subscale scores were associated with younger age and longer AD (all p 's<0.05). Multiple, diverse coping strategies are employed to deal with CRC symptoms and influenced by socio-demographic characteristics. Some are associated with care seeking delays.

Bidirectional relationships among depression, anxiety, and quality of life in Colombian cardiac patients and controls

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The prevalence of coronary heart disease (CHD) is rising in many developing countries. In order to determine predictors of depressive and anxiety symptoms and quality of life (QOL) over six months in a sample of Colombian patients suffering a myocardial infarction, 114 patients admitted to a cardiovascular clinic and 107 healthy controls were administered the Patient Health Questionnaire (PHQ-9; depression), State-Trait Anxiety Inventory (STAI), and SF-36 (QOL) at baseline and six months. In CHD patients, baseline PHQ-9, vitality, and social functioning scores predicted six-month physical functioning and general health scores (r 's=-0.44-0.34; p 's<0.05), while pain predicted vitality and social functioning (r 's=0.37-0.38; p 's<0.01). In controls, baseline pain and general health scores predicted six-month PHQ-9, STAI-T, and vitality scores (r 's=-0.40-0.36; p 's<0.05), while STAI-T predicted physical functioning (r =-0.26). Mental health appears to be a more powerful predictor of physical health in CHD patients, while the opposite is true for controls.

The influence of individual and dyadic coping on spouses' well-being

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Background: The aim of the present study was to investigate a model of mediation for explaining the relationship between individual coping, dyadic coping and partners' well-being. **Methods:** Structural equation modeling was used to analyze the responses of 358 married people on self-report measures regarding cognitive emotion regulation coping, dyadic coping and well-being. **Findings:** Using Actor-Partner-Interdependence Mediator Model we demonstrated that positive dyadic coping mediates the relationship between adaptive individual cognitive coping strategies (acceptance, rumination, positive refocusing, planning refocusing, positive reappraisal and putting into perspective) and well-being at the dyadic level. Also, negative dyadic coping mediates the influence of individual non-adaptive cognitive coping strategies (catastrophizing and other blame) and spouses' well-being. **Discussion:** The findings indicate the benefits of adaptive individual cognitive coping strategies and positive dyadic coping on the spouses' well-being, and have implications in couple and family therapy.

Burden of care and health of caregivers of patients with schizophrenia

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Background: Caregivers of patients with Schizophrenia may experience burden that can affect their health. Most studies of care giving burden have been conducted in developed countries. Current study has examined this relationship in a developing country like Pakistan. **Method:** Data stems from 100 caregivers of patients who were accompanying them at the public mental health facilities of Lahore, Pakistan. A longitudinal Study was conducted to assess health of caregivers over a period of nine months using Burden Assessment Scale, General Health Questionnaire-12 and Psycho-physiological Health Checklist developed by the researcher. **Results:** Caregivers who experience high levels of burden also report increase in health problems after 9 months period. Females especially mothers reported higher burden and more health problems. **Discussion:** Pakistan, where few public mental health and rehabilitation facilities available for families with Schizophrenia. Results strongly suggest for provision of more mental health facilities and psychosocial support for such families.

RCT of an online intervention to improve gluten free diet adherence in coeliac disease

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Introduction: The Bread n' Butter...Gluten Free of Course! program is a theory of planned behaviour-based intervention designed to improve gluten free diet (GFD) adherence in coeliac disease (CD) via theory-relevant pathways and the reduction of psychological symptoms. **Method:** 189 CD participants completed the baseline assessment and were randomised to the intervention

(n=101) or waitlist-control group (n=88). Follow-up data was collected at immediate post-intervention, and three and six-months. Data was analysed on an intention-to-treat basis. **Results:** The intervention group had significantly improved GFD adherence at post-assessment relative to the control group. The improvement was associated with a small-to-medium effect size ($d=0.35$), which increased to medium-to-large ($d=0.69$) amongst the subsample of participants with inadequate adherence. For intervention completers, improvements were maintained at follow-up. **Conclusions:** The online program was highly effective in improving GFD adherence and represents a cost-effective and evidence-based resource for individuals who are struggling to achieve or maintain adequate adherence.

Illness perceptions and social support in patients with chronic conditions and their partners

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Background: The study examines 1. similarities (concordance) and differences (discordance) between patients' and partners' perceptions of chronic conditions and 2. how perceived social support and satisfaction with support (on the patient's side) is affected by dyadic concordance vs. discordance. **Methods:** 116 patients (M: 55 years) and their partners (M: 57 years) completed the Illness Perceptions Questionnaire – Revised (IPQ-R), an adapted partner version of the IPQ-R and a measure of social support (Berlin Social Support Scales). Couples were categorized via median split on the basis of concordance/discordance of illness perceptions. **Findings:** Concordance vs. discordance regarding perceptions of timeline, personal control and treatment control have a significant impact on perceived emotional, instrumental and informational support as well as on satisfaction with support. **Discussion:** Differences in patients' and partners' perceptions of chronic conditions affect the perception of social support. These effects should be taken into account when tailoring interventions for couples coping with chronic conditions.

“When the going gets tough, who keeps going?”: Measuring individual differences in sensitivity to ego-depletion

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Background: Self-control research assumes that all people deplete their self-control at the same rate. We developed the Depletion Sensitivity Scale (DSS) to assess whether individual differences in depletion sensitivity may account for subsequent self-control. **Method:** In Study 1, 75 participants completed the DSS and several self-control scales. In Study 2, 103 participants completed the DSS, were exposed to an ego-depletion manipulation, and subsequently completed a cognitive performance task to assess self-control. **Findings:** Study 1 shows good construct/discriminant validity of the DSS. Study 2 shows that depletion sensitivity moderates the ego-depletion effect: depletion sensitive participants performed worse on the cognitive performance task. **Discussion:** For the first time, we were able to demonstrate that individual differences in depletion sensitivity may affect self-control performance. This finding has important implications for health promotion as people who are sensitive to depletion may learn to avoid depleting tasks that can affect engaging in health behavior.

Changes in problem drinking and subsequent sickness absence

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Background: Problem drinking is a major threat to employee health and work ability in Finland. Less is known, how changes in drinking affect work ability. **Methods:** Problem drinking (CAGE questions= cut, annoyed, guilt, eye-opener) was measured by postal surveys in 2000-02 and in 2007 among the City of Helsinki employees aged 40-60 at baseline. Short (1-3 days) and long (3 + days) sickness absence spells of 3215 women and 682 men were followed from the employer's register from 2007 to 2010. **Findings:** Stable problem drinking increased the rate of both short (Rate Ratio=RR 1.41, 95% Confidence Interval= CI 1.27-1.56) and long (RR 1.21, CI 1.05-1.39) sickness absence among women and short (RR 1.38, CI 1.02-1.87) sickness absence among men. Also new and former problem drinking were associated with sickness absence among men. **Discussion:** Problem drinking increases sickness absence. By decreasing adverse drinking it might be possible to prevent work disability.

News media portrayals of men's communication about their depression: Reproducing and challenging stigma

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News media articles may reproduce or challenge stigma of health issues, which can be a barrier to men's mental health help seeking. The current paper uses a discursive analytic approach to investigate the portrayal of men's depression in news media articles published over a five-year period. Men depicted as open about depression were frequently portrayed as experiencing outcomes such as recovery. Men depicted as not communicative were often portrayed as experiencing outcomes such as alcohol abuse and suicide. Such constructions may challenge stigma associated with men's discussion of mental health concerns. However, there are potentially problematic implications of such portrayals, such as positioning individual depressed men as primarily responsible for defying stigma. We use these findings to make recommendations about the kinds of language that could be used by media, mental health campaigns, and health service providers to mitigate the impact of stigma on men's mental health help seeking.

Why do mothers encourage their children to control their weight?

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Maternal encouragement of their children to control their weight is problematic as it is associated with children's body dissatisfaction and weight concerns. **Objectives:** To identify factors associated with maternal encouragement to control weight. **Methods:** Mothers of 1658 schoolchildren (50.4% boys, 7.1±0.6 years) participating in the Baden-Wuerttemberg-Study received a questionnaire. Children's height and weight were measured. Data were analysed via logistic regression.

Findings: Significantly more girls than boys (32.4% vs. 25.6%) were encouraged to control their weight. Encouragement of boys was simultaneously associated with boy's BMI, migrant status, and low maternal self-efficacy to increase child's physical activity. Girls' encouragement by mothers was associated with girl's BMI, migrant status, maternal body dissatisfaction and low perceived influence on health. **Discussion:** Results suggest gender differences in the related factors. Yet, regardless of gender, mothers perceiving themselves less influential towards health or health behaviours are more likely to encourage their children to control their weight.

Effectiveness of a CBT-based program versus progressive muscle relaxation for medically unexplained physical symptoms

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Background: A short cognitive-behavioral group program was developed for people suffering from medically unexplained physical symptoms (MUPS). The aim was to examine whether this program was effective in improving the number and intensity of bodily symptoms, depression, anxiety and physical and mental well-being. The effectiveness was tested in a randomized controlled trial. **Methods:** Participants (N = 134) were recruited by advertisements in local newspapers and randomly allocated to either the CBT group or a progressive muscle relaxation group (PMR) or a wait list control (WLC). Assessment took place before and after intervention as well as 6 months after the end of intervention. Repeated measures (group x time) MANOVA's were performed. **Findings:** Participants of the CBT group improved significantly compared with the WLC condition, but CBT did not result in better outcomes in comparison with PMR. **Discussion:** Both CBT and PMR appear to be effective in improving psychological health in people with MUPS.

The H1N1 pandemic: Risk perception affects brain responses to real-life risk communication

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Background: During global health crises, such as the recent H1N1 pandemic, the mass media provide the public with timely information regarding risk. The present study measured brain responses to a naturalistic presentation of risk information. **Method:** Participants differing in their pre-existing perceptions of H1N1 risk (low vs. high) viewed an entire TV-documentary about H1N1. Inter-subject correlation (ISC) of neural time courses was used to assess how similarly the brains of viewers responded to the report. **Results:** We found enhanced inter-subject correlations in the anterior cingulate among viewers with high risk perception which is involved in evaluating stimulus salience and personal relevance. By contrast, neural responses in sensory-perceptual regions were similar across all viewers and not affected by risk perception. **Discussion:** These results support affective theories of risk and demonstrate a novel methodology for understanding how real-life health risk messages are processed.

Posttraumatic growth: Cognitive processes and emotion in cancer patients' narrative accounts

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Lately there's an increased interest in debate on posttraumatic growth's nature (PTG): reality or illusion? (Sumalla, 2009). Tedeschi & Calhoun (2004) suggest to look into the role of cognitive processes and emotion associated with trauma in autobiographical narratives. The aim of this research is verify the existence of different narrative accounts of PTG in a group of cancer patients (N=30). Narrative accounts were analyzed by two different coding systems: Life story model of identity (McAdams, 2001) and Summed emotion model (Pennabaker & Francis, 1996). 44% showed PTG; 33% used more negative emotions, 17% used more positive emotions and 50% used both positive and negative emotion. Consistently with Pennabaker & Francis' model (1996) cognitive processes were more in group characterized by balanced use of positive and negative emotion (M=32; SD=13,65) (real growth) and cognitive processes are less in group characterized by greater use of positive emotions (M=18; SD=12,73) (illusory growth).

Disturbed eating patterns, glycemic control and quality of life among diabetics

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Objective: The aim of present research was to explore the relationship among disturbed eating patterns, glycemic control and quality of life (QoL) in patients with diabetes. **Methods:** Correlation research design was adopted. A sample of 60 (30 males, 30 females) diabetics, including both Type-1 (n=30) and Type-2 (n=30) patients, was collected from Jinnah Hospital, Lahore, Pakistan. A self-constructed Demographic Questionnaire, Eating Inventory (EI), Eating Attitude Test (EAT-26) and Quality of Life Index (QLI) were used for assessment. **Findings:** No significant correlation was found among variables. Family subscale of QoL measure was negatively correlated with glycemic control ($r=-0.37$, $p<0.05$) and disturbed eating patterns ($r=0.22$, $p<0.05$). Significant differences were observed in the terms of glycemic control between Type-1 and Type-2 diabetics ($t(58)=-2.41$, $p=0.02$) but no significant gender differences were found. **Discussion:** Awareness can be given that by improving eating patterns quality of life can be improved as well.

Individual and dyadic coping processes and psychological distress among couples undergoing infertility treatment

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Background. This study investigated the association between individual and dyadic coping processes and psychological distress among couples seeking treatment for infertility. **Methods.** Infertile couples completed questionnaires assessing coping (Brief COPE), infertility specific- and

generalised-distress following an initial consultation to undergo infertility treatment. Multilevel modelling using the Actor–Partner Interdependence Model was used to examine the couple as the unit of analysis. **Findings.** Women reported greater distress and overall use of coping strategies than men. Participants' own approach coping was associated with increased stress for both genders, and increased infertility-specific distress for men. Participants' own avoidance coping was associated with increased generalised- and infertility specific-distress for both genders. At a dyadic level, partner's approach coping was associated with reduced depression for women, but increased depression for men. **Discussion.** These findings highlight the systemic-transactional nature of coping and lend support to the utility of providing systemic interventions with infertile couples seeking treatment.

Systematic review of internet-based interventions providing individualised feedback for weight loss in overweight adults

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Background: To assess the effectiveness of individualised feedback in internet-based weight loss interventions for overweight adults. **Method:** Systematic review of randomised controlled trials recruiting adult participants with BMI>25kg/m². Interventions targeting diet and/or physical activity for weight loss, delivered at least in part via the internet using individualised feedback, were included. Comparator groups included standard care or an alternative intervention without individualised feedback. **Results:** Ten studies were included (n=2230). At three months, interventions providing individualised feedback showed significantly greater weight loss (Mean difference (95% CI) = -2.53 (-3.06,-2.01); p<0.00001), reduced BMI (-1.12 (-1.38,-0.87); p<0.00001), reduced waist circumference (-3.90 (-4.96,-2.83); p<0.0001) and a higher proportion of participants reaching 5% weight loss (24.30 (3.34,176.89); p=0.002), compared to comparison groups without feedback. Subgroup analysis explored the effectiveness of different types of feedback. **Discussion:** Incorporating individualised feedback may be a key behaviour change technique for effective interventions delivered via the internet.

Predicting physical and mental health at old age: The role of the hostile-world scenario

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The Hostile-World Scenario (HWS) refers to one's beliefs regarding potential threats to one's life or integrity (e.g., anticipated death, social rejection, familial hardships). We studied the role of the HWS in predicting physical and mental health in the Israeli component of the Survey of Health, Ageing and Retirement in Europe (SHARE). Out of a nationwide sample aged 50+, 1261 participants were assessed in two waves, four years apart, and completed the 14-item HWS measure. Employing hierarchical regression designs, HWS at Wave 1 predicted changes in physical and mental health outcomes at Wave 2 beyond effects of baseline levels and sociodemographics.

Predicted outcomes included instrumental activities of daily living, chronic medical conditions, physical symptoms, and depressive symptoms. These predictions were stronger among older participants. Corroborating Shmotkin's (2005) model, the results suggest that the HWS serves as a psychological monitor, which senses approaching functional declines in later life before they actually occur.

Self-affirmation enhances open-mindedness in smokers: An ERP study on early attention allocation

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Self-affirmation has been found to reduce defensive responding to threatening health information, but little is known about how early in the process of responding to such information it makes a difference. We examined whether effects of self-affirmation were visible in early attention processes, that is, attention disengagement in response to threatening health information, in 39 smokers. A variant of the Posner Cueing Task in combination with ERP measurement was used. Non-affirmed smokers had higher P300 amplitudes in response to low-threat as opposed to high-threat invalid trials, indicating more efficient disengagement processes. However, self-affirmed smokers did not show that pattern, indicating no disengagement process from high-threat trials. Furthermore, self-affirmed smokers showed a tendency to perform better on the task, indicated by overall higher amplitudes compared to non-affirmed smokers. These findings provide new neuroscientific support that self-affirmation facilitates open-mindedness to threatening information, but also suggest that self-affirmation promotes better task performance.

Improving wellbeing through service design for people with long term neurological conditions

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Background: The wellbeing of people with Long Term Neurological Conditions (PwLTNCs) was studied to help prioritise wellbeing within person-centred healthcare service design. **Methods:** A participatory qualitative approach explored the experiences of PwLTNCs as they transitioned through care pathways. 50 semi-structured interviews with PwLTNCs (25 re-interviewed 3 times) and 45 semi-structured interviews with service providers were conducted. Interviews focused on health, wellbeing and quality of life in relation to service provision, access and delivery. **Findings:** PwLTNCs reported that effective physical care was provided in hospitals but often terminated on return to the community despite on-going need. Moreover, physical health dominated professional agendas with wellbeing not often considered. In hospital/community settings, service providers indicated they lacked the support/resources to provide continuous and socially-oriented care, with PwLTNCs reaching 'crisis point' before referral to specialists. **Conclusions:** Findings show that dis-connections between services disrupt quality care and feelings of depersonalisation/disempowerment hinder the achievement of wellbeing outcomes.

Well-being and emotional exhaustion among teachers: Relations with school context

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Purpose: The purpose of this study was to examine how emotional exhaustion, job satisfaction, and engagement among teachers were related to central aspects of the perceived school context. **Method:** Participants in a cross-sectional survey were 2569 Norwegian elementary and secondary school teachers. Data were analyzed by means of SEM-analysis for latent traits. We tested five SEM-models with good fit to the data. **Findings:** The school context variables most strongly related to emotional exhaustion were workload (standardized regression coefficient = .44), and discipline problems (.14), whereas positive relations with parents (.21) and colleagues (.10), value consonance (.18), autonomy (.10), and discipline problems (-.13) were most strongly related to a combined job satisfaction and engagement variable. Also the combined job satisfaction and engagement variable was strongly related to exhaustion (-.50). **Discussion:** The study shows that there are multiple sources of teachers' psychological well-being as well as emotional exhaustion.

Alcohol use in the Canadian forces: The roles of depression and coping

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Background: Studies suggest that exposure to military stressors may contribute to poorer health and alcohol consumption. It was hypothesized that stress would mediate the association between stress and alcohol consumption among Canadian Forces members and that the association would be moderated by coping. **Method:** A path analysis was conducted to examine a moderated mediation model among military personnel (N=628). **Findings:** Coping played an important role in psychological health both moderating the impact of stress (emotional coping) and directly predicting decreased depressive symptomatology (active coping). The indirect effect of stress on alcohol consumption (via depression) was moderated by emotional coping such that this association was strongest among individuals high in emotional coping. Finally, the results demonstrated that the stress model explained alcohol use among male but not female military members. **Discussion:** Potential implications for the prevention of problem drinking among male military personnel are discussed.

eHealth literacy: German translation of the self-reported measure eHEALS and development of a skill-based measure

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Background: The objectives were to evaluate the German translation of the eHEALS, to test the content-derived hypothesis of two eHEALS subscales (information seeking, information appraisal), and to develop a skill-based measure covering the same subscales. **Methods:** For the

eHEALS, a cross-sectional survey among 327 18-year-old students was conducted. A confirmatory factor analysis compared the 1-factor model based on Norman and Skinners' analyses with our 2-factor model. For the skill-based measure, 12 participants aged 18 to 25 years followed a think-aloud protocol while the screen was recorded. **Findings:** The results indicate a better fit of the 2-factor model (χ^2 difference of 82.018, $p < .0001$) supporting the division into subscales. Participants showed variability regarding number and type of websites, search terms employed, and informed choice. **Discussion:** The German translation of the eHEALS demonstrated to be a consistent, reliable and valid instrument. The skill-based measure is a useful extension to eHealth literacy measurement.

Can cognitions, self-regulation and environmental-variables explain differences in vegetable consumption between high- and low-educated adults?

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Background. Low-educated adults eat fewer vegetables than high-educated. In order to decrease this difference it is important to have insight in variables that may explain this difference. **Methods.** A cross-sectional study using online questionnaires was conducted (N=1.107; 758 high-, 349 low-educated). Multiple mediator analyses were performed using the joint-significance test to establish mediation (path-a: SES-mediator, path-b: mediators-consumption). Potential mediators are: intention, attitude, self-efficacy, subjective norm, self-regulation, action-planning, coping-planning, perceived availability and price of vegetables and availability of vegetables at home. **Findings.** Lower-educated participants had a more negative attitude and lower self-regulation than higher-educated and these variables mediated the relation between SES and vegetable consumption: attitude (path-a: Beta=-0.086, $p=0.011$; path-b: Beta=0.193, $p<0.001$); self-regulation (path-a: Beta=-0.084, $p=0.016$; path-b: Beta=0.071, $p=0.007$). **Discussion.** This study shows that attitude and self-regulation can explain differences in vegetable consumption. Targeting these variables in interventions may contribute to a reduction in differences in vegetable consumption between educational groups.

Supplementing written information with video material to increase accessibility among people with less health literacy: A controlled evaluation of benefits for health-related quality of life

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Background: Low health literacy/education can be an obstacle for initiatives which promote self-management and quality of life. Evidence suggests that knowledge and health behaviours can be improved by both DVD and booklet interventions and questions have been raised as to whether a DVD plus booklet may provide greatest improvement to patients with less education. **Methods:** A longitudinal evaluation of an information booklet vs. information booklet plus DVD was carried out among 107 people with haemophilia-related chronic joint pain. The primary outcome was health-related quality of life, measured using the RAND-36 (SF-36). **Findings:** The DVD improved mental quality of life at follow-up among participants with high-school only education, whereas participants with higher (university) education benefitted from the booklet even in the

absence of the DVD. **Discussion:** DVD/Video materials can ensure the benefits of written health self-management information are available to groups with less education.

Does acculturation shape the prediction of Turkish migrants' eating behaviour? An application of the prototype-willingness model

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Turkish migrants are at high-risk for unhealthy eating among adolescents in Germany. It is yet unknown if this issue was brought from Turkey or arose in Germany as a result of acculturation. The present study compared the prediction patterns for eating behaviour of adolescent Turkish migrants to Germans and Turks using the Prototype-Willingness-Model. Prototype-Willingness-Model-variables were assessed via questionnaire and compared longitudinally across Turkish migrants (n = 131) and Germans (n = 303) as well as cross-sectionally across Turkish migrants (n = 102) and Turks (n = 270) using multiple-group SEM. Turkish migrants' eating behaviour was less favourable than Germans' and likewise with Turks. However, Turkish migrants' behaviour was predicated via the reasoned action pathway, whereas Germans' and Turks' was predicted via the social-reaction pathway. Thus, the issue of unhealthy eating also exists in Turkey. Nonetheless, the prediction pattern might change by acculturation. Implications for theory and interventions are discussed.

Carers' capabilities for health: Using internet forums for research with informal caregivers

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Background: Sen's capability approach to health provided the theoretical framework for a participatory study of the wellbeing of informal caregivers of older people. **Methods:** Participants in an internet forum contributed to discussions based on weekly topics (developed from the capability framework). Participants introduced additional topics. Over three months, 60 carers discussed caring for spouses, parents, and non-family members. **Findings:** Thematic analysis of carers' contributions revealed a set of capabilities for health. The contradictory importance of emotions was highlighted across this set of capabilities. Carers described emotional attachment that influenced decisions to provide care and also affected the freedom to fulfil their own needs. **Conclusions:** The focus on emotions in the caregivers' stories has led to the next stage of the research. The use of an online method provided the opportunity to contextualise caregiving and to test the internet as a vehicle for participatory research with a difficult to reach population.

Defining the factors affecting adults' subjective well-being levels

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Well-being is one of the core concepts of psychology. Subjective well-being is a self-evaluation about individual life satisfaction and positive-negative feelings. This descriptive study aims to

define the factors affecting adults subjective well-being levels by using CHAID (Chi-squared Automatic Interaction Detection) analysis. The study group consisted of 432 adults selected by snow-ball sampling technique from different regions of Turkey. As data collection tools, a questionnaire about socio-demographic and cultural characteristics of participants, and the 'Subjective Well-being Scale' developed by Dost (2005) were used. Results showed that the average subjective well-being level of adults is $165,04 \pm 25,09$ (71.7% of the maximum value). Factors such as age and educational level were found to be effective for subjective well-being. Furthermore, the participants who stated that they practiced regular physical exercise, healthy nutrition habits, and non-smoking behaviour had higher subjective well-being levels. Our results support the activities in positive psychology towards the improvement of well-being.

Coping with HIV: The influence of God locus of health control and religious coping in enhancing HIV patients' quality of life

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The study aimed to examine the interaction effect God Locus of Health Control (GLHC) and Religious Coping (RC) in quality of life (QoL) among HIV patients in Malaysia where large number of them are not medically adhered. Data were gathered with questionnaires containing GLHC scale, RCOPE Brief, and HAT-QoL where 117 patients participated through snowball sampling. Nine two-way ANOVAs were used to analyze the interaction effect of GLHC and positive RC in nine dimensions QoL respectively where the findings showed significant interaction in overall functioning. While another nine were used to analyze the interaction effect of GLHC and negative RC in nine dimensions of QoL where interaction effects found in two dimensions (financial worries and disclosure worries). The implication is that healthcare providers and counselors could promote coping with religious elements especially to patients who attribute health outcomes to God as it was found to be able to influence well-being.

Do people make different risk-based decisions for their children than for themselves?

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Background. People tend to be unrealistically optimistic about personal health risks, yet parents are often highly sensitive to risks when making health-related decisions for their children. This study explored whether parents are more likely to vaccinate their children than themselves in hypothetical risk scenarios. **Methods.** A within-subjects online survey design was used. 245 parents chose whether to vaccinate in nine fictional influenza scenarios, which varied by risk level associated with non-vaccination (low, medium, high), and risk target (self, child, own parent [control]). Scenarios were presented in one of three set sequences. **Findings.** Controlling for risk level, participants were more likely to vaccinate their child than themselves, but only where the task sequence began with a scenario relating to themselves or their parent ($F[4,14] = 4.49, p < .001$). **Discussion.** People may be more risk-averse in decisions for their children than for themselves. This warrants further investigation in more methodologically robust studies.

The use of the EMDR to care people with breast cancer

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Objective: The aim of this paper is to show the results of a randomized controlled pilot study about EMDR therapy in the care of breast cancer patients. All patients met in the Hospital and the treatment was performed in a private office with two EMDR. The measures were realized by an independent psychologist different of the two psychotherapists. **Subjects:** A total of 20 subjects were randomly allocated to eye-movement desensitization and reprocessing (EMDR) .n = 10 versus waiting list (WL) (n = 10) in a primary care setting. **Methods:** The subjects had to answer questions from the IES-R, BDI and STAI scales. These different measures were administered to all of the subjects before beginning the therapy (T1), after six sessions of sixty minutes of EMDR (T2), six months later (T3) and eleven months later (T4). **Main results:** The data were processed with non-parametric tests. Results indicate that the group that received psychological care has less PTSD score, depression, anxiety and quality of life score than waiting list and less PTSD score, depression and anxiety then at the beginning of treatment. The initial results were maintained at the 6 and the 12-months follow-up.

Social representations of alcoholism and gender alcoholism: Influence of optimism and practices

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The aim of our study is twofold: 1) studying social representation of alcoholism and gender alcoholism and 2) assessing the influence of comparative optimism and practices of alcohol consumption. In order to study social representations, comparative optimism and practices, 288 women and 148 men had to perform a free associative task with hierarchical evocation, a comparative optimism scale, and QHPBA and AUDIT scales to assess practices. Data analysis consists in Multiple Correspondence Analysis (MCA) and mediation analysis. Results show that social representations of “alcoholism” are each one associated with negative beliefs and only alcoholism is perceived like a disease. Social representation of “masculine alcoholism” is associated with aggressiveness whereas “feminine alcoholism” is associated with shame. We showed that age, gender, comparative optimism level and practices of alcohol consumption influence the construction of each Social Representations. We discussed the implication of these results for prevention and for therapeutics care for alcohol dependence.

Persistent negative disease perceptions despite long-term biochemical control of acromegaly: Novel application of the drawing test

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Context and objective: Patients with acromegaly have persistent complaints despite long-term biochemical control of the disease. Drawings can be used to assess perceptions of patients about

their disease. We aimed to explore the utility of the Drawing Test and its relation to illness perceptions and quality of life (QoL). **Design:** Cross sectional study. **Subjects:** We included 50 patients after long-term remission of acromegaly. Patients completed the Drawing Test (with drawings on their body perception before acromegaly, during the active phase of acromegaly, and after long term biochemical remission of acromegaly), the Illness Perception Questionnaire-Revised, the Physical Symptom Checklist, the EuroQoL-5D, and the AcroQoL. **Results:** Patients perceived a dramatic change in body size during the active state of the disease compared with the healthy state prior to the awareness of acromegaly. Patients reported that their body did not completely return to the original proportions in the healthy state after long term biochemical control of acromegaly. In addition, there were strong correlations between the size of the drawings and the perceived negative consequences of acromegaly ($P < 0.05$, larger drawings indicated more negative consequences). Emotional representations and illness identity were also correlated with the size of the drawing. Larger drawings indicated a higher score on emotional representations ($P < 0.05$) and larger drawings also indicated more perceived symptoms that were attributed to acromegaly ($P < 0.01$). The association between the Drawing Test and QoL was less apparent. **Conclusion:** The Drawing Test appears to be a novel and relatively easy tool to assess the perception of patients after long-term remission of acromegaly. The assessment of drawings may enable doctors to appreciate the perceptions of patients with long-term remission of acromegaly, and will lead the way in dispelling idiosyncratic beliefs.

Are student nurses educated on personal holistic self-care strategies for nursing practice?

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Background: The ability of nurses and other healthcare professionals to self-care is vital for their own health and well-being. Numerous studies, however, continue to highlight high levels of stress, burnout, and attrition among undergraduate nursing students. In addition, the students appear to struggle with finding appropriate self-care strategies to cope with frequently identified stressors such as family, finance, and academic and practice situations. **Method:** This integrative review evaluates current literature on the education of student nurses in relation to personal self-care. **Findings:** Findings from this review highlight, firstly, a lack of a clear definition of self-care, secondly, a greater focus on behavioural rather than holistic approaches to self-care, and thirdly, a paucity of research on the preparation and education of nursing students in self-care strategies for themselves. **Discussion:** This review concludes by highlighting a strong need for more education that focuses on the development of holistic personal self-care strategies for undergraduate nursing students.

Family well-being when work and family collide: Gender differences

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Using an experimental design, this study investigates the preference for the professional role or the family role and its implications for the well-being. 414 participants choose a role or another after reading one of our 4 vignettes presenting two competing tasks, a professional one and a

family related one, with two levels of pressure (low and high). Also they fill in several measures regarding motivation to get involved into work and family life, strategies adopted to balance work and family and family well-being. Results depict significant gender differences when perceived pressure from the family domain is higher and professional pressure is lower, women being still more inclined to "sacrifice" career to better deal with the family tasks, in comparison with men. The results contribute to existing knowledge of how men and women face the collisions between work and private life, for preventing the decrease of the quality of life.

Detecting depression in chronic ill patients by home nurses: Effects of a minimal intervention

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Background: Chronic ill patients have an elevated risk to develop comorbid depression. Most primary care providers however have little training to detect patients at risk. The capacity of a minimal intervention to help home nurses detect depression in these patients was therefore evaluated. **Methods.** Home nurses (N=93) in three Flemish regions were assigned to the intervention (consisting of information, skill training and discussion) or to a control condition. The Depression Attitude Questionnaire and the Morris Confidence Scale were completed before the intervention and two months afterwards. For four months the number of detections in each region was monitored. **Findings.** No significant changes were found in attitude or professional competence. However, home nurses who followed the intervention detected significantly more depressed patients compared to controls, $X^2(1, N = 92) = 4.71, p = .030$. **Discussion.** A minimal intervention might especially (and sufficiently) motivate home nurses to detect symptoms of depression in chronic ill patients.

Predicting blood donation maintenance: The importance of planning

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Background: Interventions to retain blood donors need to target the most influential and changeable factors. This study tested antecedents of three successive donation decisions. **Methods.** Participants were donors who had donated for the first time one year previous (N=1,018). We measured intention to continue donating, vasovagal reactions, deferral, anxiety and planning failure. We analysed determinants of three consecutive donation decisions. **Findings.** Three logistic regression analyses showed that the first donation decision was influenced by intention (OR = 1.70; 95%CI = 1.30 – 2.21), number of previous donations (OR = 2.35; 95%CI = 1.81 – 3.06), vasovagal reactions (OR = 0.92; 95%CI = 0.87 – 0.97) and planning failure (OR = 0.81; 95%CI = 0.70 – 0.95). The second and third decisions were influenced only by planning failure (OR = 0.85; 95%CI = 0.73 – 1.00). **Discussion.** Results show that interventions focussing on decreasing planning failure could yield long term positive results in blood donation retention.

Identifying the 'if' for 'if-then' plans: Combining implementation intentions targeting unhealthy snacking habits with cue-monitoring

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To successfully change unhealthy snacking habits, implementation intentions (if-then plans) require specification of the cue triggering the behaviour in the 'if'-part. Identification of such cues, however, is not straightforward. To increase insight into one's snacking behaviour and to tailor implementations intentions accordingly, we combined planning with cue-monitoring. Participants (N=174) monitored their snacking behaviour and its triggers using a cue-monitoring diary (vs. control) and formulated implementation intentions (vs. goal intentions). Snacking behaviour was measured using a seven-day snack diary. Both analyses yielded a main effect of cue-monitoring. Cue-monitoring either or not combined with implementation intentions effectively reduced number of snacking situations ($p=.006$; $p=.03$, respectively) and caloric intake ($p=.03$; $p=.08$) compared to control. Findings emphasize the effectiveness of cue-monitoring when fighting snacking habits. Results suggest that in short term, cue-monitoring might be sufficient to decrease unhealthy snacking. However, implementation intentions might still be required to establish automatic behaviours supporting behaviour change maintenance.

Preventing overweight and improving parenting skills from birth to age 3 years: Preliminary results.

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Background. Parenting has been associated with child weight status. This study aims to evaluate the effects on parenting skills and BMI-SDS of the BBOFT+ overweight prevention program, compared to care-as-usual (CAU). **Method.** In a cluster-randomized trial, 2500 parents participated. Parent-reported weight and length were used. Parenting was measured with subscales control and reinforcement of the parenting strategies for eating and activity scale (PEAS) and the warmth subscale from the Child Rearing Questionnaire. **Results.** The first univariate analyses show that at age 15 months, no statistically significant differences in BMI- SDS, parental control, reinforcement or warmth were found between the BBOFT+ and the CAU group. Further cluster analyses need to be conducted. Results from age 36 months will be presented during the conference, which will include all subscales of the PEAS and an assessment of parenting styles. **Conclusion.** The intervention does not seem to have an effect on BMI-SDS or parenting.

Efficacy of an online intervention to promote uptake of the Human Papillomavirus (HPV) vaccine in women

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Background: Educational interventions are fundamental to increasing knowledge of HPV. Educational interventions have focused on HPV as a sexually transmitted disease (STI) or as a

causal factor in development of the illness. Gain-framed messages are more effective in promoting acceptance of the HPV vaccination (Gerend & Sheperd, 2007). **Methods:** A 3 (cervical cancer focused, cervical cancer/STI focused, and control) x 3 (baseline, immediate and one month follow-up) design was used to test the impact of an online intervention using positively framed messages on knowledge, PBC and intention to get HPV vaccine. **Results:** A significant interaction effect was found for knowledge about risks. Those in the cervical cancer condition displaying the greatest increases ($F(4, 186)=2.54, p=.04$). These differences did not, however, translate to intentions. **Discussion:** The study suggested that a focus on cervical cancer risk in educational interventions cervical for HPV may be more effective in increasing risk awareness.

The essential role of awareness in eating in moderation among Dutch adults

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Background: Awareness is considered to be an essential first determinant of complex health behaviours. The aim of this study was to examine the role of awareness regarding eating in moderation by identifying differences in psychosocial determinants between aware and unaware Dutch adults. **Methods:** Determinants were assessed at baseline (N = 483) and behaviour at six month follow-up (N = 379) using self-reports. Multiple regression analysis was used to identify determinants of eating in moderation. **Findings:** Participants who were aware of their dietary behaviour had a lower energy intake (835.1 kcal) than those who were unaware (983.4 kcal) and only among aware participants, motivational factors were associated with eating in moderation. **Discussion:** Awareness seems to play an important role for eating in moderation. It is important that people first become aware of their behaviour, since this is a prerequisite for other determinants such as motivational factors to come into play.

Thinking you're "old and frail": A qualitative study of older adults' beliefs regarding frailty

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Background: This qualitative study explored older adults' attitudes towards and experiences of ageing and frailty. **Methods:** Thirty South West England residents recruited through different organizations, aged 66-98, and varying degrees of frailty participated in semi-structured interviews, which were analyzed using Grounded Theory and Thematic approaches. **Findings:** Identifying as "frail" was felt by participants to be related to health and participation in an active life. Respondents discussed how others' feedback and comparisons with other older adults informed their self-perceptions and attitudes of ageing and frailty. Being categorized by others as old and frail was felt to encourage attitudinal and behavioural confirmation of that identity, including a loss of interest in participating in social and physical activities, poor health, stigmatization, and reduced well-being. **Discussion:** This study gives insight into the role of social psychological variables in older adults' health and activity. Self-perceptions and identification should be considered in further research.

Healthy living intervention for people with recent onset psychosis: Randomised controlled trial.

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Background: People with psychosis often experience rapid weight gain which places them at increased risk of cardiovascular disease, diabetes and early death. We designed and tested a healthy living intervention including individualised goals and action plans to encourage physical activity and healthier eating. **Methods:** One hundred and five service users with recent onset psychosis and a BMI of 25 or more were randomized to the intervention versus treatment as usual. Primary outcome was change in body mass index (BMI). **Findings:** Ninety-three patients (89%) were followed up at 12 months. The between group difference in change in BMI was not significant (-0.31 vs. 0; effect size 0.11), although mean BMI of participants in the intervention group continued to reduce during the 6-12 month follow up period. **Conclusions:** The particular challenges of designing and implementing a healthy living intervention in this group, and the potential role of antipsychotic medication, will be discussed.

The past predicts the future? The influence of past behaviour on action plans and intervention effects

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Individuals' specifications of situations/responses in action plans are presumably influenced by their experience with the target behaviour. In this study, the extent to which past behaviour is reflected in plans for fruit and vegetable intake (FVI) was assessed, and used as predictor of behaviour change following planning. In a RCT, 152 participants of sport classes were randomly allocated to an action planning (PC) or control condition (CC) and completed 2-week daily diaries of FVI at baseline and follow-up. Ratings compared past FVI with action plans and post-intervention FVI in diaries. The PC consumed significantly more FV at follow-up than controls ($d=.16$). 71% of plans reflected previous FVI (situation/ response). The more plans corresponded with past FV, the less effective they were for behaviour change. Content analyses shed light on the working mechanism of action plans in field settings. Plan novelty seems more relevant for changing behaviour than reliance on preferences.

Subjective age in health behavior change: Predicting changes in physical activity and dietary behavior

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The present longitudinal study investigated whether subjective age measures and chronological age are significantly interrelated with changes in physical activity and dietary behavior. Regression analyses with enter method were used to predict behavior changes between baseline

predictors and follow-up behavior 4 weeks later ($n = 672$). Subjective physical age and subjective cognitive age were highly interrelated with chronological age ($r = .71 - .83$; $p < .01$). Subjective physical age predicted physical activity change ($b = -.09$, $p < .05$). Chronological age ($b = .08$, $p < .05$) and subjective cognitive age ($b = .07$, $p < .05$) predicted dietary behavior change. All age measures were significant predictors until baseline behavior entered the model at the final step. The results suggest that different age measures are important for different health behavior change processes. These findings might be especially useful for tailoring health promoting interventions toward specific age groups.

Exploring British primary caregivers' experiences of supporting a partner with Parkinson's Disease

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Background: Parkinson's Disease is a challenging neurodegenerative condition characterised by motor difficulties and other challenging symptoms typically affecting older adults. In Britain most individuals with Parkinson's are cared for at home by family members. Yet theory and research about these caregivers' experiences is currently limited. **Methods:** Extended semi-structured interviews were undertaken with eleven married caregivers (seven wives and four husbands). Data were analysed using interpretative phenomenological analysis. **Findings:** Participants described reconfiguring gender relations and related challenges. They became protective and hyper-vigilant to ensure the safety of their spouses but mourned a loss of intimacy and a narrowing of their social worlds. They were critical of interventions from healthcare professionals unless a genuinely biopsychosocial approach to the couple as a dyad informed care. Involvement from support agencies was valued if appropriately timed. **Discussion:** Implications for developing more effective interventions for patients and caregivers in both clinical and voluntary contexts are considered

Stroke survivors' beliefs about walking more and an intervention to promote increased walking: Qualitative study

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Background: To adapt an existing TPB-based intervention to increase walking the salient beliefs of stroke survivors about walking were elicited and the intervention's feasibility explored. **Methods:** Semi-structured interviews with a purposive sample of 14 South London Stroke Register participants, eliciting salient beliefs about walking and exploring intervention feasibility, including use of pedometers. Data was analysed using Framework analysis. **Findings:** Salient behavioural outcomes included increased health, fitness and travel to desired places but also increased pain. Key normative referents were participants' families. The most salient control factors were the weather, health problems and using walking aids. Regarding pedometers, less active participants were unsure while more active participants said pedometers provided impetus for improvement. Participants felt that action plans should be tailored to individuals' local urban environments. **Discussion:** Stroke survivors' salient beliefs about walking reflect their high level of comorbidities. Planning seemed acceptable to most but pedometers need careful presentation to motivate adherence.

Using a diabetes-specific measure to predict disordered eating in adolescents with Type 1 Diabetes

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Background: Disordered-eating in adolescents with Type 1 Diabetes presents a serious problem for healthcare professionals. It is associated with suboptimal glycaemic control, yet there is a lack of research (using diabetes-appropriate measures) investigating how best to identify and address disordered eating in this population. **Methods:** Adolescents (n = 99) from UK Type 1 Diabetes clinics completed the Diabetes Eating Problems Scale (DEPS-r) and the Diabetes Distress Scale (DDS). Demographic and medical data were collected from hospital records. DEPS-r data were regressed on DDS, demographic and medical data. **Findings:** The regression model (R² =.61, p<.05) indicated that significant predictors were; female gender, suboptimal glycaemic control and elevated BMI. Furthermore an interaction effect indicated that diabetes-specific distress was a significant predictor in females. **Discussion:** Healthcare professionals should screen for disordered eating in adolescents who have suboptimal glycaemic control and/or are overweight and in females experiencing diabetes-specific distress.

Proactivity moderates the dietary intention–planning–behavior path

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Background: Dietary planning is assumed to mediate between intentions and dietary behaviors. However, among low proactive individuals, this mediation might fail. Therefore, an extension of the model by including proactivity is examined. **Methods:** Psychometric scales were administered at two points in time, three months apart, to 240 young Chinese participants. Intentions, outcome expectancies, risk perception, action self-efficacy, and proactivity were assessed at Time 1, whereas planning, coping self-efficacy, and dietary behavior were measured at Time 2. **Results:** Structural equation models replicated previous evidence on the validity of the HAPA. Moreover, the inclusion of proactivity yielded no main effects, but an interaction between intentions and proactivity on dietary planning. The intention – planning – behavior chain was moderated by proactivity which means that this connection operates only well when individuals are proactive. **Conclusions:** A combination of proactivity and the motivation to eat healthy foods facilitates dietary planning which, in turn, benefits corresponding behaviors.

Identifying distinct trajectories of benefit finding among cancer patients receiving psychosocial care

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Background: This study aims to (1) identify distinct trajectories of benefit finding among cancer patients receiving psychosocial care (2) examine the predictive value of these trajectories of

benefit finding for the course of psychological outcomes. **Methods:** Participants were 241 cancer patients who were receiving psychosocial care at psycho-oncology centers in the Netherlands. Data were collected before the start of psychosocial care, and 3 months and 9 months thereafter. A latent class analysis was applied to examine research questions in Mplus 7. **Findings:** Five trajectories of benefit finding were identified: “high” (8%), “moderate” (28%), “low-large improvement” (9%), “low-small improvement” (39%), “very low” (16%). Benefit finding trajectories had an impact on the course of psychological outcomes during psychosocial care. **Discussion:** We found distinct trajectories of benefit finding in cancer patients receiving psychosocial care. Patients in these trajectories reported different levels and course of psychological outcomes.

Is personality related to trait HRV?

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Background: HRV is protective of CHD, and is positively related to emotional regulation and well-being. Trait HRV is measured over a normal 24-hour-period. **Methods:** 80 adult community volunteers, 20-80 years of age, completed an online comprehensive personality self-report which included the TCI, the Big Five, the Toronto Alexithymia Scale, the DS14, and the Positivity scale. They then had a 24-hour ambulatory heart recording. The resulting autonomic action reports (AAR's) were sent to the participants for personal use, and the HRV parameters were entered into a data file which included the personality data. **Findings:** There were significant correlations between personality traits and parameters of trait-HRV. Combining different personality models allowed for constructing a risk and resilience personality profile for maximizing HRV. **Discussion:** Trait HRV is systematically related to personality. The optimal personality measurement relative to HRV should be further studied. The findings may be applied to the design of psychological interventions.

Effects of a family-based group therapy on quality of life and mental health status in obese children

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Background: The purpose of this analysis was to show the effects of standardized multiprofessional group therapy on health-related quality of life (HRQOL) and mental health status in obese children. **Methods and Results:** We present data of 342 children (12.2±2.2 years) of the national multicenter cohort study in Switzerland. Primary outcome was a change in BMI-SDS; secondary outcomes were improvements of HRQOL (Kidscreen 52) and mental health problems (SDQ) after one year. At T0, HRQOL of overweight children was significantly worse than in healthy Swiss peers and rates of emotional and behavioral problems were higher. At one year, significant improvements of HRQOL were found in physical and mental well-being, positive self-awareness and social acceptance by peers. Emotional and behavioural difficulties decreased by half. **Conclusion:** Mental health and HRQOL are often impaired in obese children and clearly improve during family-based group therapy. Improvements in psycho-social functioning are thought to be pre-requisites to sustain a healthy lifestyle in the long term.

Poster Presentations (In alphabetical order by first author)

French “Mental Health in the General Population” survey: Suicide risk levels and their stability

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The present study focuses on the frequentist approach to risk evaluation using a sample of 31,024 French “Mental Health in the General Population Survey” participants. The Mini International Neuropsychiatric Interview suicidality subscale was employed to define a condition set and the recent suicide attempt risk was evaluated for each condition. Eighteen other suicide related factors were selected to test the eventual risk changes considering other psychopathological factors. Suicidality subscale items, dark ideas, suicide ideation, self harm, and lifetime suicide attempt embody High risk (.47% suicide, 95% CI= [.36, .56]), Moderate risk (.20% suicide, 95% CI= [0.254, 0.150]) and, Low risk (.002% suicide, 95% CI= [0.002, 0.001]) conditions. The presence of chronic anxiety over the past six months systematically changes the risk levels (ES= 0.70). Results are promising for hotline checklists, screening evaluation and suicide prevention with the priority given to chronic anxiety.

An integrative model of ulcerative bowel disease may help us to better target clinical interventions

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Background: In France, ulcerative bowel disease (UBD) is a frequent, severe and chronic inflammatory disease, reaching the rectum or/and the colon. There is a considerable body of research literature examining the impact of psychological factors on the evolution of the health status and quality of life of people with UBD. Our aim is to develop an integrative model explaining this disease, including the main concepts of health psychology. **Methods:** We made a selection of recent articles found on scientific data banks (Medline, PsychINFO). **Findings:** Not surprisingly, perceived stress is an important explanatory factor, as well as coping. But inadvertently, health anxiety may be increased by information provided in the context of a therapeutic education (Selinger & al., 2012). **Discussion:** The construction of an integrative model incorporating these findings may help us to better target the nature of clinical interventions to better self-manage this disease, and thereby to limit its damages.

Pediatric intestinal graft and quality of life: The Spanish experience

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Background: The aim of the study was to explore health-related quality of life HRQOL in pediatric Spanish recipients of intestinal graft. **Methods:** This was a descriptive cross-sectional

study involving thirty-one pediatric-ITx survivors from 1999 to 2012. Sociodemographic and clinical data were collected. We assessed HRQOL using age-specific questionnaires on routine visits or email: TAPQOL (0-4y), KINDL-R (4-17y) and SF-36v2 (>18y). The primary caregiver completed SF-36v2 and caregiver-burden interview. **Findings:** Mean period of time after transplant was 4.4y (0-13), children mean age 10.2y (1-29). Self-concept, family relationships and general health status differ from normative population. No significant difference in global HRQOL was found. Caregiver's group marked the lowest score on social functioning and bodily pain. Half of them showed no burden, 28% mild and 24% strong. **Discussion:** Exploring HRQOL will guide researches to aim efficient preventive treatment. In order to achieve vigorous results and suggestions it is needed to add more subjects with pediatric-ITx condition.

Intergenerational relations in the light of migration and ageing

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Ageing and migration constitute two current key issues in Europe. Regarding potential physical and functional impairments in old age, individuals have to rely on support and care from their families and/or on assistance from the public sector. As first generation immigrants now approach retirement age in many European countries, the question how their families will deal with issues of old-age care gains increasingly importance. In the present study, a cross-cultural comparison of altogether N = 120 Portuguese and Luxembourgish triads of older parents and their adult children, both living in the Grand-Duchy of Luxembourg, is envisaged. Firstly, we will examine similarities and differences in identity constructions of older parents and their adult children. Secondly, we will investigate how intergenerational relations are regulated in migrant compared to nonmigrant families. Finally, we will explore how these aspects influence subjective well-being (SWB) of older individuals. Qualitative and quantitative methods will be applied.

Functional capacity in patients with Fibromyalgia: Clinical and psychosocial determinants

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Background: The lack of confirmation of pathophysiological mechanisms at the origin of fibromyalgia has led to the assumption of a possible influence of psychosocial factors. **Method:** We conducted a quantitative study, which was attended by 61 women diagnosed with fibromyalgia, aged 34 to 71 years (M = 51.10 years). To measure the variables we used instruments validated for the Portuguese population. **Findings:** There was no significant effect of demographic, clinical and family on functional capacity. It was found that as greater a satisfaction with social support, the lower impact on the functional capacity, and the higher the levels of anxiety, depression, stress, the greater the impact on functional capacity. **Discussion:** The evidence from this study, reinforced the idea that this syndrome should be evaluated in various optical, in the context of a multidisciplinary intervention model that considers the Bio-Psycho-Social.

Social representations of nurses about the elderly wearer

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Background: The present study had as main objective to know the social representations and attitudes of nurses over the wearer elderly. **Method:** We conducted a cross-sectional, descriptive, correlational, quantitative, attended by 151 nurses, 115 women aged 22 to 55 years ($M = 36.79$) and 36 men aged 24 to 54 years ($M = 38.78$). To measure the variables we used instruments validated for the Portuguese population. **Findings:** The results showed that younger nurses, with less experience time in his career and current service, with training post-basic (post-graduate) and living with older 1st and 2nd degree concurrently, have better social representations. **Discussion:** The evidence concur with the need to enrich the curricula of schools and post-base materials based on aging, promote intergenerational contact and intelligently manage human resources in health institutions.

Diagnosis of occupational stress in railway industry

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Stress is already recognised within railway industry as a key health concern. This study involved 130 employees (83 men and 47 women) from The Romanian National Railway Company, average age being 45 years ($SD = 9.89$). To assess occupational stress level, participants completed Health Safety Executive Indicator (HSE). Job satisfaction was assessed using JDI (Smith et al., 1969) and emotions were measured with MEST-Ro (Levine & Xu, 2005). Following the directions proposed by the European Agency for Safety and Health at Work regarding health risks at work for women and active aging at work, this study identified several gender differences concerning: perception of job demands, social support received from the boss, role perception within the organisation and satisfaction with current salary. Age groups differences identified: emotions related to work, work demands, coworkers support and job satisfaction. The results have major implications in designing interventions aiming at reducing stress at organisational level.

A review of the pathogenesis for psychogenic heart disease

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Background: Extensive literature supports the significant contribution of psychosocial factors to the pathogenesis of heart disease. **Methods:** A literature review derived from MEDLINE searches in the past decade and focusing on the pathophysiology of cardiovascular disease was undertaken, with a specific focus on mood and anxiety disorders, and in particular panic disorder. **Findings:** There are direct pathophysiological mechanisms that provide explanatory models for psychogenic heart disease. **Discussion:** The presence of psychosocial factors in the development and expression of heart disease has been debated over many years. High prevalence mental disorders, depression and anxiety, continue to be under diagnosed and under treated in patients with

cardiovascular disease. However, there is now an appreciation that a link between mental and cardiac processes exist and that the mechanism for this relationship is mediated by the sympathetic nervous system and its role in stress.

Effects of carbon monoxide readings on Greek smokers' risk perceptions and intentions to stop smoking

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Background: To study the effects of carbon monoxide (CO) readings and stage of change on Greek adults risk perceptions and intentions to quit smoking. **Methods:** One hundred Greek adult smokers (65 men, 35 women), with mean age of 38.2 (SD=9.3) from two Greek firms were randomly allocated to receive their CO reading or generic information. All subjects filled out the same set of self-reports. ANOVA was used to analyse the data. **Results:** There was no significant effect of group on risk perceptions ($p>0.05$) or intentions to stop smoking ($p>0.05$). There was a marginally significant interaction between group and level of dependence on risk perceptions ($p=0.06$) with smokers in the experimental group, with higher levels of dependence reporting higher risk perceptions. Stage of change affected directly both intentions to quit smoking ($p<0.001$) and risk perception ($p=0.057$). **Discussion:** CO helped in creating more appropriate perceptions of risk in those smokers with higher levels of dependence and therefore this seems as an appropriate group for further study.

Life satisfaction and emotional intelligence of the elderly

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Introduction: Life satisfaction contributes to a better life quality for seniors. In this context, this work aims to identify the level of life satisfaction of the elderly and identify the key factors contributing to this satisfaction. **Methods:** Cross-sectional study, quantitative, with a sample of 199 seniors, average of 66.28 years old, mostly female (64.8%). **Results:** The majority of the elderly (52.8%) have high life satisfaction. Age and emotional intelligence are the factors that influence the life satisfaction of the elderly. The dimensions of emotional intelligence: sociability, self-motivation, self-control, self-awareness as well as the total scale explained 20.8% of the variance in life satisfaction, while age explained 3.3%. **Conclusions:** Life satisfaction and emotional intelligence are key promoters of active aging and affect life quality and wellness during this stage of the life cycle.

Coping with stress and quality of life among refugees and asylum seekers: A systematic review of literature

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The objectives of this review were to provide an overview of research on stress, coping and quality of life among asylum seekers and refugees. The study performed a systematic search of

literature through PsycARTICLES, PsycINFO and other reference papers. Papers selection proceeded by categorization and elimination on the bases of pre established criteria: researchable stress, coping including their moderators and quality of life. Twenty eight studies were included in the review. Although most of the studies dealt with PTSD, a few did combine it with other psychological distress including acculturation stress. Despite recommendations to simultaneously handle stress and coping, only nine studies followed the recommendations. Coping moderators were social support in nature. Furthermore, only one study investigated quality of life among refugees and asylum seekers. There appear to be no clear direction in the coping and stress research among refugees and asylum seekers. Moreover, the quality of life among this vulnerable group is neglected. Suggestions for future research are discussed.

Health and quality of life of students during the two first years of health studies

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The first year of health study is very stressful with a competitive environment. In these conditions, our aim was to evaluate and understand how this stress impacted on the quality of life and on the physical and mental health of students all during the first year but also during the second year of cursus. For the quantitative and longitudinal approach we used a questionnaire of stress and coping for students (Bruchon-Schweitzer) a scale of anxiety and depression (HADS), the Derogatis scale for the physical symptoms (SCL-90-R) and the SF-36 questionnaire for the quality of life. More than 1000 students have responded to the two steps evaluation during the first year, and more of the half during the second. The students in health present a higher level of stress and a very bad quality of life compared to others students. They also present disturbing symptoms of anxiety, depression and somatic symptoms.

Contraception in adolescence: Attitudes of a group of Portuguese adolescents towards the use of pill

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Background: Despite the Sexual Education programs, youth who get pregnant by accident persist, with sexual risk behaviors. **Objective:** To determine the influence of sociodemographic variables and context of sexuality in attitudes towards pill use. **Method:** Observational study with 1216 adolescents aged between 14-18 years, mean = 14.69 (SD = 0.836), 54.7% female, in 9th grade education. We used the scale of attitudes towards pill use. **Results:** 25.3% of the adolescents are dating, 53.3% speak about sexuality with friends, 49.3% with their mother. 15.1% boys and 10.5% girls between 10 -18 years had sex, (mean= 13.83 years; SD= 1.508). Of these 19.0% did contraception, 62.8% used condom and 37.2% pill. Present inadequate attitudes towards pill use 18.5% boys and 29.8% girls, 20.6% boys and 18.6% girls present very appropriate attitudes ($X^2 = 17,216$; $p=0,000$). The age of first sexual intercourse did not influence the attitude of teenagers towards pill use ($X^2 = 6.710$, $p = 0.348$). **Conclusions:** Contraception in adolescence should be viewed in a context of integral education for responsible living, considering the teenage pregnancy as a major problem of public health worldwide.

Longitudinal associations of fathers' depressive symptoms, parental responsibility for diabetes, and metabolic control across adolescence

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Maternal depression interferes with the ability to be an effective caregiver for adolescents with type 1 diabetes, but paternal depression has not been studied. We examined whether fathers' depressive symptoms are associated with deteriorating metabolic control (HbA1c) across adolescence, especially when parents have primary responsibility for diabetes. 252 adolescents (10-14 years old at baseline) with type 1 diabetes and 188 fathers completed surveys every 6 months for 2.5 years; HbA1c was indexed from medical records. A linear growth model showed adequate fit, RMSEA=.065[CI=.056-.073], $\chi^2(246)=511.085$. Fathers' depressive symptoms at Time 1 (T1) were associated with higher (poorer) HbA1c at T1 ($p < .05$), and interacted with parental responsibility to predict faster deterioration in HbA1c across time ($p < .05$). Simple slope analysis showed paternal depression was associated with deterioration in HbA1c only when parents were more responsible for diabetes management. Fathers' depression may undermine parents' ability to facilitate adolescent diabetes management.

Is individual religiosity over youth an appropriate means of enhancing mental health and reducing anxiety?

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Background. Among the factors that protect mental health contemporary researchers consider individual religiosity. The objective of this research was to find out at the expense of which losses individual religiosity, formed by the time of the youth, can bring about a desirable reduction of the existential anxiety as a prerequisite of mental health. **Method.** On a sample of 180 research participants (students of a religious seminary and civil universities, representing intrinsic believers, non-believers and extrinsic believers) positive values and character strengths were assessed (Peterson and Seligman, 2004). **Findings.** Intrinsic believers appeared to significantly differ from other participants by the highest scores on temperance, transcendence, humanity and the lowest scores on curiosity, creativity and courage. **Discussion.** The care of mental health of the young people needs to be taken of by creating conditions for enhancing their cognitive abilities while for the elderly people individual religiosity can serve this purpose.

Perceived risks to smoking cessation among treatment-seeking French light smokers

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Background. Literature suggests that perceived risks related to quitting may hinder smoking cessation. Because the proportion of adults smoking ≤ 10 cigarettes daily is progressing, we

investigated their perceived risks to quitting and the impact on cessation outcomes. **Methods.** We analyzed retrospectively data from 5165 adult light smokers attending French cessation services. Perceived risks were identified using thematic analysis of open-ended responses. Multivariate logistic models yielded predictors of 1-month outcomes. **Findings.** Thematic analysis yielded 11 themes: withdrawal, weight concerns, relapse, stress, loss of enjoyment, depression, social ostracism, loss of identity/routine, need for moral support, boredom and self-exempting beliefs. Women concerned about depression or moral support were twice more likely to relapse. Concerning abstinence, a protective effect of nicotine treatment was associated with concerns about withdrawal and weight. **Discussion.** Perceived risks to quitting hamper cessation among light smokers but the protective effect of cessation aids is an encouraging message to convey.

Enhancing Resilience in a coaching setting: Evaluation of the “Five Segment Pie of Mental Wellbeing”

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Background: In the past seven years, a new five-dimensional concept of mental well-being has been put into practice by Dutch health coaches in order to enhance resilience among employees and managers. Subjective experiences are promising, but scientific evidence is still lacking. A questionnaire to measure and evaluate this construct has been developed. **Methods:** 150 participants filled out a questionnaire which consisted of five subscales, together with several existing well-known questionnaires of psychological well-being. Interdependency of the dimensions, internal consistency of the scales, and construct validity were analyzed. **Findings:** Two dimensions (“self-acceptance” and “inquisitiveness”) show good internal consistency whereas “belonging” is still poor. The dimensions turn out not to be independent of each other. Construct validity for dimensions with good reliability seems to be satisfactory. **Discussion:** This concept provides insight in, and deepens our knowledge about how resilience mechanisms are working.

Evaluation of “¿QUÉ TAL?” A weekly group tool for self-care teams close to human suffering.

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Background: The emotional drain on health professionals is a growing problem. Therefore, we call “¿QUÉ-TAL?” a weekly session in which the team can share general assessment within their personal and professional life. The main objective is to provide the benefits assessed by using this tool. **Methods:** A questionnaire (n = 41) was made by the past six years members of psychologists of University-Hospital “La Paz”. Socio-demographic and personal experience was collected by an assessment tool. A descriptive analysis and correlation data was performed. **Findings:** The total mean satisfaction is 8 out of 10 with a standard deviation of 0.62 and a reliability (Cronbach’s $\alpha = 0.85$). The highest correlations (≥ 0.6) are emotional management, membership and support staff on the private field. **Discussion:** The biggest benefit refers to the emotional sphere, followed by group relationship and learning more professional skills. We suggest further research of this tool in other clinical settings.

Neuroticism and coping styles in women with Mayer-Rokitansky-Küster-Hauser syndrome

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Objectives: It was investigated whether women with Mayer-Rokitansky-Küster-Hauser (MRKH) syndrome differ from healthy women as far as coping styles and neuroticism are concerned. **Methods:** Neuroticism and coping styles (task-, emotion- and avoidance-focused) were assessed among 46 women with MRKH syndrome (age: M=23.48; SD=4.88) and 44 healthy women (age: M=25.95; SD=5.24), using the Polish version of NEO-FFI and CISS. **Results:** The results of MANCOVA (controlled for age) showed that women with MRKH syndrome had significantly higher level of neuroticism ($F [1, 87] = 8.05; p < 0.01$) and emotion-oriented coping style ($F [1, 87] = 5.21; p < 0.05$), as well as lower level of task-oriented coping style ($F [1, 87] = 8.68; p < 0.01$) compared to healthy women. **Conclusions:** The results make it possible to identify primary psychological problems related to MRKH syndrome, and to formulate proposals related to psychological actions addressed at this group of women.

Longitudinal drinking patterns among individuals not yet ready to change their unhealthy alcohol use

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Background: Most individuals with unhealthy alcohol use are not yet ready to change. Using the transtheoretical model of behavior change (TTM) as framework, this study examined longitudinal drinking patterns among this understudied group. **Methods:** A sample of 332 job-seekers with unhealthy alcohol use not yet ready to change (Mage: 30 years, 62% men) completed questionnaires on alcohol use (Alcohol Use Disorder Identification Test), self-efficacy (Alcohol Abstinence Self-Efficacy scale), and decisional balance (Alcohol Decisional Balance Scale). Latent class growth models with drinking frequency and quantity at baseline, 3-, and 6-month follow-up as indicators were calculated. Between-class differences in the growth of the TTM-constructs were examined. **Findings:** Three classes emerged: decreasing heavy episodic drinking (70%), stable drinking (19%), and increasing frequent drinking (11%). The classes differed in the growth factor means of the TTM-constructs. **Discussion:** Drinking trajectories are heterogenous. Ignoring this could lead to biased results, misleading conclusions, and inadequately tailored intervention.

Which decision-making styles are connected with better mental health?

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Background: While the relationship between decision-making styles and other cognitive characteristics have often been investigated, little attention has been focused on their connection to health. The main aim of the present research is to describe the association of decision-making

styles with well-being and perceived stress. **Methods:** University students from Slovakia (n=175) filled in the General decision-making styles questionnaire (Scott & Bruce, 1995) identifying five decision-making styles as part of the SLICE study. The WHO Well-being index was used to assess well-being. Perceived stress was assessed by the short version of the Perceived Stress Scale (Cohen et al., 1983). **Findings:** Multiple linear regression including all five styles was used to predict well-being ($R^2=0.15$, $F(6,173)=4.733$, $p<0.001$) and perceived stress ($R^2=0.19$, $F(6,173)=6.298$, $p<0.001$) with the avoidant decision-making style showing negative and intuitive decision-making style showing positive associations with better mental health. **Discussion:** Certain decision-making styles are associated with better mental health.

Effect of urban-area deprivation on mental health of citizens differs between Slovak and Dutch cities

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Conclusive evidence is lacking on the association of mental health problems (MHP) with area deprivation, particularly regarding Central European cities. We examined whether the prevalence of MHP was associated with area deprivation; whether this association differed by country; and whether it could be explained by the socioeconomic characteristics of citizens. We obtained data on residents aged 19-64 from the EU-FP7 EURO-URHIS2 project from two Slovak and two Dutch cities. An elevated GHQ-12 score (≥ 2) indicated MHP. Multilevel logistic regression showed that the association between MHP and area deprivation was strong in the Netherlands, but flat in Slovakia. Slovak citizens from the most favourable tertile of neighbourhoods had nearly double the risk of MHP than did Dutch citizens from the most favourable tertile. Individual-level socioeconomic characteristics did not explain area differences. The effect of urban-area deprivation seems to differ between Central European and Western European countries.

The relation between stress vulnerability and external motivation regulation

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Background: This study aim to find the relation between the external motivation regulation and the vulnerability to stress in a sample of university students. **Methods:** The instruments used, with 132 students, were the 23.QVS “Stress Vulnerability Scale” and the LMS-28 “Life Motivation Scale”. Correlation analyses were tested. **Findings:** The vulnerability factor “Perfectionism and intolerance to frustration” scores negatively with Extrinsic Motivation sub-scale of “External Regulation” ($r=-.240$, $p<.01$), and the “Deprivation and Social Support” factor has a negative correlation with Extrinsic Motivation sub-scale “Identification” ($r=-.248$, $p<.05$). On the other hand, high level of “Subjugation” are related to a low score on the sub-scale “External Regulation” ($r=-.223$, $p<.05$). **Discussion:** Students that have high scores of tolerance, obtain a high external regulation score. These results support the idea that motivation decreases the stress vulnerability among the students at University.

The POM: A novel tool to assess parental adjustment to caring for a child with perinatal stroke

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Perinatal stroke is a common yet poorly understood brain injury that occurs between 20 weeks of fetal life and 28 days of postnatal life. Existing questionnaires of parental adaptation capture many of the issues parents of children with perinatal stroke face. However, these questionnaires fail to directly measure parental guilt and blame, which are salient concerns among this population. The APSP Parental Outcome Measure (POM) was developed as a novel, comprehensive 31-item questionnaire of parental adaptation that includes quantifiable measures of guilt and blame. We present preliminary data from the first 51 parents of children with perinatal stroke who completed the POM. The results indicate that the POM has excellent internal consistency (Cronbach's $\alpha = .92$) and test-retest reliability over a 2 to 5 week span ($r = .89$). The results also support the POM's convergent validity with related measures. These results provide preliminary evidence that the POM may be a reliable and valid tool for future research studies and clinical practice.

Qualitative study investigating the impact of post-traumatic stress disorder on quality of life

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Background: Post-Traumatic Stress Disorder (PTSD) has a major impact on the lives of patients. The aim of this study was to evaluate the impact of PTSD from the clients' perspective. **Methods:** In-depth one-to-one qualitative interviews were conducted with 4 male participants (ages 41-53; mean 45 years). Interviews were audio-recorded and transcribed. The transcripts were thematically analysed to identify the impact of PTSD on impairments (symptoms), activity limitations (functioning) and Quality of Life (QoL). The analysis was guided by the World Health Organization's classifications of impairments and functioning and the needs-based model of QoL. Statements relating to the impact of PTSD on the patients' lives were identified, categorized and sub-categorized. **Results:** Statements fell into 3 main categories: impairments (e.g. flashbacks), activity limitations (e.g. self-care), and QoL (e.g. relationships). **Discussion:** Although further interviews are planned, preliminary findings have identified important outcomes of PTSD, from the clients' perspective.

Locus of control beliefs among coronary patients returned to work

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Background: Return To Work (RTW) and everyday activities are major goals for patients with coronary artery disease (CAD). Percutaneous coronary intervention (PCI) and coronary artery

bypass graft (CABG) surgery are effectively relieving symptoms and reducing the risk for new events. However, 30–50% fail to RTW. The aim was to identify factors associated with RTW among patients in Northern Norway. **Methods:** Cross-sectional study of CABG and PCI patients following discharge. Data from self-report and hospital records of 168 patients working prior to hospitalization. **Findings:** RTW rate was 64% within 3–15 months. RTW was associated with four factors including higher education, time since hospital discharge and Internal and Powerful others Locus of Control (LoC). Analyses controlled for demographics, emergency, treatment, days at hospital, exercise, rehabilitation, mental distress, personality, and coronary health. **Discussion:** Patients' control beliefs and educational level are significant psychosocial factors associated with RTW following PCI and CABG treatment.

Social support, the importance of religious belief and alcohol use among university students: An international study SLICE

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Background: The aim of the study was to examine the impact of social support and the importance of religious belief on alcohol use. **Methods:** The research sample consisted of 655 university students (Lithuania, Hungary and Slovakia) who participated in the international study SLICE. The Multidimensional Scale of Perceived Social Support (friends, family, significant others), Alcohol Use Disorders Identification Test, and single item measure of importance of religious belief were used and analysed with linear regression. **Findings:** The level of alcohol use was negatively associated with the importance of religious belief (Lithuania:-0.226, $p<0.01$; Slovakia:-0.172, $p<0.05$), social support of family (Hungary:-0.270; Slovakia:-0.242, $p<0.05$) and social support of significant others (Lithuania:-0.241, $p<0.05$). It was positively associated with Social support of friends (Hungary: 0.268, $p<0.05$). **Discussion:** The results were partially consistent across countries. Taking into account individual differences in social support and the importance of religious belief could make the prevention of risky alcohol use more effective.

Health and well-being among Romanian adolescents transitioning to adulthood

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Background: In Romania, according to the latest estimates 1 in 5 adolescents are dealing with mental health issues. This study aims to investigate components and factors associated with health and well-being among Romanian adolescents transitioning to adulthood, within the context of family, peers, school and neighbourhood. **Methods:** A nationally representative sample of 4200 twelve graders was included in our study. Health and well-being was assessed in an online questionnaire and included: self-rated health, subjective health complaints, risk behaviours, positive resources, and aspects of social cohesion. **Findings:** Romanian adolescents reported average mental health. Inequalities in health and well-being were mostly related to low socio-economic situation, lack of appropriate social cohesion and presence of risk factors. **Discussion:** These results indicate the importance of social cohesion and of socioeconomic variables for understanding variations of mental health in emerging adulthood.

Does psychological flexibility mediate the relation of social support with psychological distress?

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Both social support (SS) and Psychological Flexibility (PF) have been negatively related to psychological distress (PD) in patients with cancer. Previous research also reported on positive relations between PF and SS. These findings may suggest a mediational interplay between SS and PF to explain PD. Accordingly, the present study explored whether PF would mediate the relation of SS with PD in patients with cancer. 98 patients with cancer (86.7% females; Mean age= 50.3) participated in the study. Patients completed measures of PF, SS and PD following a cross-sectional design. Results from hierarchical regression analyses showed that SS scores did significantly predict PF and PD. When both SS and PF were included in the equations as predictors, only PF did significantly predict PD. Findings suggest that increasing PF is one of the mechanism through which SS is able to reduce PD.

Food preference and oral quality of life in adolescents

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Background: The study aimed to identify the food preferences of teenagers and the influence on oral quality of life. **Methods:** Transversal and descriptive study on food preference and oral quality of life in a sample of 661 parents (Parent/Guardian) and 661 adolescents aged between 11 and 17 years (13.22 ± 1.139). Questionnaire for parents on the feeding preferences of their children/students and teenagers about oral quality of life (OHIP-49). **Findings:** Parents report that adolescents preferred, since childhood, sweet foods to salty foods (70.5% Vs 29.5%). The food preference influences the quality of life in functional limitation ($p=.012$), psychological distress ($p=.003$), physical disability ($p=.017$), psychological disability ($p=.002$), social disability ($p=.021$) and handicap ($p=.049$). Revealing statistically significant differences in all dimensions except physical pain and OHIP-total ($p=.108$). **Discussion:** Teens who prefer sweets have negative impact on quality of life related to oral health.

Using the theory of planned behaviour and self-identity to increase chlamydia testing amongst young people

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Background: The study tested an intervention based on the Theory of Planned Behaviour and self-identity to increase chlamydia testing amongst young people living in deprived areas. **Methods:** College tutor groups ($N = 21$) were randomised to receive either the intervention or usual sexual health education. The sample comprised 253 participants (Intervention $n = 145$,

Control n = 108). Outcomes measured were test offer uptake, intentions, attitude, subjective norm, perceived behavioural control, and self-identity. **Findings:** Test acceptance did not differ significantly between the intervention (57.5%) and control condition (40.2%). All mean outcome values were more positive in the intervention condition compared to the control condition; however, Generalised Estimating Equations revealed only a significant effect of intervention condition on attitude, controlling for clustering. **Discussion:** The results suggest potential for a theory-based intervention, targeting the key determinants of chlamydia testing, to increase chlamydia testing rates in an at-risk group.

Group-based weight-loss programmes: A systematic review.

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Background: Although effective weight-loss programs are commonly delivered in groups, it is unclear why and how this delivery mode is used. There is also little research into how groups are managed, what training is provided for facilitators and what delivery fidelity measures are used. **Methods:** A systematic literature review of diet and physical activity interventions for weight loss using a variety of electronic databases. **Findings:** We identified 112 studies published in English between 2000 and 2012, and which reported weight loss outcomes. The results show a large variation in the design of group interventions. Although groups are most often used to provide social support, content and change techniques related to group processes and support were rarely reported. Details about facilitators' training and skills, and fidelity of delivery were also rare. The quality of reporting of the group-specific elements and change mechanisms was low. The implications of these findings are discussed.

Understanding consumer acceptance of intervention strategies for low-calorie food choices: A qualitative study

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Background: Intervention strategies for healthy food choices potentially reduce obesity rates. Reviews of the effectiveness of interventions, however, show mixed results. The aim of the present study is to explore consumer acceptance of intervention strategies for low-calorie food choices. **Methods:** Data was collected in the Netherlands in 8 semi-structured interviews and 4 focus group discussions (N=39). Nine archetypical strategies representing educational, marketing and legal interventions served as reference points. **Results:** We found that three beliefs influence consumer acceptance: 1) general beliefs regarding obesity rates, such as who is responsible for food choice; 2) the perceived effectiveness of interventions; and 3) the perceived fairness of interventions. **Conclusions:** General and intervention-specific beliefs influence consumer acceptance of interventions for low-calorie food choices. Policymakers in the food domain can use the findings to negotiate the development of interventions and to assess the feasibility of interventions.

Spiritual growth improves life satisfaction, while spiritual decline decreases it: An example of patients coping with melanoma

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Can “positive” spirituality help people to cope with a traumatic event by enhancing subjective well-being? Does “negative” spirituality decrease subjective well-being? To show if positive spirituality can help people to cope with a traumatic event such as a diagnosis of a cancer, we conducted a study at the University Hospital of Nantes with 87 patients suffering from melanoma. Results showed that spiritual growth increased posttraumatic growth, which in turn led to higher life satisfaction, but this was moderated by time since diagnosis. We found that patients need about two years to have some benefits on their life satisfaction. Finally, results also highlighted that spiritual decline increased negative affectivity which in turn predicted a lower life satisfaction. These findings point out the importance of spirituality in oncology support care.

A cross-cultural application of the prototype willingness model

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Background: The Prototype Willingness Model (PWM) suggests that there are two separate antecedents to behaviour: intention and willingness. Whereas intention is suggested to be rational and deliberative, willingness is more automatic and impulsive. The current study used a cross-cultural sample in order to examine the differing predictive power of the PWM for drinking behaviour. **Methods:** A sample of 193 individuals from Australia (n=108) and Singapore (n=85) completed a questionnaire measuring alcohol consumption and variables on the PWM. **Findings:** Willingness to drink significantly predicted alcohol consumption in Singaporeans. Both willingness and intention to drink significantly predicted frequency of alcohol consumption. **Discussion:** The antecedents of the PWM differentially predict alcohol consumption in culturally different samples. Implications for health interventions aimed to reduce drinking across cultures are discussed.

Is the common sense model of illness representations a valid model to predict adherence?

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Background: The aim of this meta-analysis was to explore whether the CSM is a valid model to predict adherence in chronically ill patients. **Methods:** Electronic databases were searched for studies that used the CSM and measured adherence behaviour in chronically ill patients. Correlations from the included articles were meta-analysed using a random-size effect model. A moderation analysis was conducted for type of adherence behaviour. **Findings:** The effect sizes for the different mental representations of the CSM and adherence varied between -0.02 and 0.11. Type of adherence behaviour did not moderate the relationships between the different mental representations and adherence. **Discussion:** The low effect sizes indicated that the CSM might not

be a valid model to predict adherence in chronically ill patients. Measuring intention and applying the CSM to research regarding acute diseases are a few of the implications for future research that will be discussed.

Using an EMDR – Eye Movement Desensitization and Reprocessing - therapy for the treatment of chronic pain

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Background: The complex part of cognitiv, behavioral and emotional in chronic pain make treatment complicated. Since few years, many authors have argued on a traumatic symptomatology who be responsible of chronic pain (reactionnal symptom of Post Traumatic Stress Disorder), or that chronic pain may induce a trauma. One study about using EMDR on chronic pain, already shows interesting results (Mazzola, Calcagno, Goicochea, Pueyrredon, Leston & Salvat, 2009). **Methods:** This research aims to test the effectiveness of treatment of chronic pain with a specific EMDR pain protocol (Grant & Threlfo, 2002) (n=15), compared to an EMDR standard protocol (Shapiro, 1995) (n=15), and eclectic therapy (control groupe) (n=15). **Findings:** After every session, and at the end of the treatment, the effects of EMDR protocol on chronic pain and traumatic symptomatology were evaluated and show significant improvement. **Discussion:** The use of various EMDR protocol will be discussed.

Psychological facilitators of colorectal cancer screening: Results of a French study

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Background: Colorectal cancer (CRC) is well treated thanks to therapeutic techniques, when it is diagnosed at an early stage. It is established that CRC screening reduce the mortality rate relative this disease. However, the current rate of participation (34%) still stays below recommended norms (45%). So, it seems necessary to better understand what motivates people to participate in the screening test. **Methods:** 674 people from 50 to 74 years old completed some questionnaires to evaluate: knowledge about CRC screening, facilitators of CRC screening, health anxiety, and coping strategies. **Finding:** Binary logit regression analyses highlighted knowledge about CRC screening, overestimation of facilitators of CRC screening, fear of disease, and monitoring coping strategies as the main determinants of participation in CRC screening. **Discussion:** This finding may help health organizations to conceive better awareness campaigns to promote CRC screening by taking into account motivators to participate.

Engaging young adults within a Type 1 diabetes clinic: Does goal setting help?

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Aims: To assess the uptake, goal attainment and factors affecting goal attainment. **Methods:** Young people with Type 1 diabetes completed a goal setting worksheet with a researcher.

The overall goal, confidence, action plan, supporters, barriers and solutions were discussed and a specific implementation intention was formulated. **Findings:** Attitudes towards goal setting were positive, 24 completed worksheets and follow up, of which 16 reported positive progress. Higher confidence to achieve a goal was associated with higher goal attainment ($r=0.445$, $p<0.05$), those who identified a supporter were more likely to achieve a goal ($m=4.3$ vs $m= 3.2$, $p<0.05$). The most common goal was about increasing the number of blood tests. **Discussion:** This study provides support for the use of goal setting as an inexpensive method of engaging young adults within a clinic context. To increase goal attainment those showing low confidence should be assisted to develop a more achievable goal.

Normative beliefs, social support and alcohol consumption among non/risk alcohol consumers: A longitudinal study

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Objective: To explore normative beliefs(NB), social support(SS), alcohol consumption(AC) among non/risk drinkers. **Methods:** Online questionnaires concerning AC (The Alcohol Use Disorders Identification Test), SS (Scale of perceived Social Support) and NB were distributed in 05/2011(T1) and 10/2012(T2). The sample consisted of 658 university students (76,4% females; $M=19,71$; $SD=2,23$; response rate=26,2% in T2) from 3 countries (Slovakia, Hungary, Lithuania). Friedman tests and binary logistic regressions were used for data analysis. **Findings:** Statistically significant changes of AC were observed between T1&T2 (all countries). Nonrisk drinkers at T1 (43%) reported significant increase of AC at T2; on the other hand the risk drinkers (66%) reported a significant decrease of AC at T2. The NB and SS remained stable over time within both groups. Further analysis showed cross-sectional associations of lower NB(T1&T2), higher family SS, lower friends SS(T2) with reported nonrisk AC. **Discussion:** These findings confirm the protective role of NB&SS which is relevant for improving intervention effectiveness.

Who benefits and why? Barriers and facilitators of treatment success and psychosocial health

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Background: In-patient psychotherapy aims at promoting activities and participation in patients with mental disorders. Although generally effective, some patients do not benefit. Based on the bio-psycho-social concept of health and illness, this studies analyses resources and barriers affecting the patients' functioning after in-patient psychotherapy. **Methods:** A sample of 23 patients was interviewed in 5 focus group discussions 18 to 24 months after their in-patient stay. The discussions focused on experienced resources and barriers before, during and after the inpatient treatment. Interviews were digitally recorded, transcribed and analysed inductively according to qualitative content analysis. **Results:** Analyses show that individual factors and the social environment are regarded as influencing the course after discharge. These themes were complemented by aspects of employment, health care, preparation of the inpatient stay, and clinical characteristics. **Discussion:** This study provides information on subjective conditions which facilitate or hinder transfer of skills acquired in-patient therapy to everyday life.

Influence of stroke patients' wellbeing on family caregivers' quality of life: Contribution of the health capability concept

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Background: Family caregivers' health capability and their stroke patients' one are interrelated. **Methods:** Linear regressions were made to explain 62 caregivers' psychological and social QoL and perceived health (WHOQOL-Bref). The independent variables were: - patients' QoL dimensions (NEWSQOL-Mobility, Self-care, Pain, Cognition, Feelings, Relations, Emotion, Fatigue), - patients' and caregivers' satisfaction with community services (CSCS-confidence, satisfaction, caregivers' taking-into-account), - caregiving impacts (CRA-Lack of family support, caregiving esteem), - respondents' sex, age, relationship. **Results:** Caregivers with lower psychological QoL are women ($\beta=.359*$) who care for worried patients ($\beta=.339*$; $R^2_{adj}=.228$). Caregivers with lower social QoL don't feel taken into account in community services ($\beta=.277*$) and care for worried patients ($\beta=.407**$; $R^2_{adj}=.231$). Overall perceived health is lower among caregivers who lack family support ($\beta=-.515***$), are dissatisfied with services ($\beta=-.302*$) and care for worried patients ($\beta=.402**$; $R^2_{adj}=.454$). **Discussion:** Patients' psychological wellbeing explains caregivers' QoL the most. Results are discussed in light of the health capability concept.

University students personality variables, related to driving under the influence of alcohol

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The prevalence of alcohol impaired driving in Lithuania is quite high. Researchers are doing a lot of study in this field, but there is lack of concern to psychological variables, which can also be predictors of driving under the influence of alcohol. The aim of this study - to investigate some psychological variables as possible predictors of drunken driving. 664 university students participated in the survey (76% female, 24% - male). We used specially designed questionnaire, Sensation seeking scale form V, Health Locus of Control Scale and Time perspective inventory. 69,1% of students have driving license. 18,7% of them drove under the influence of alcohol. Driving under the influence of alcohol is related to frequency and amount of drinking. We have found significant relationships between driving under the influence of alcohol and sensation seeking, health locus of control and time perspective of university students.

Emotional experience, emotion regulation and psychological well-being of the elderly

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One reliable indicator of emotional and mental health is psychological well-being. Researchers are interested in the interface between emotional experience and psychological well-being of the elderly. The aim of our research - to analyse emotional experience, emotion regulation and

psychological well-being of the elderly. **Methods:** specially designed questionnaire, Positive Affect and Negative Affect Schedule (Watson et al, 1988), Emotion Regulation Questionnaire (Gross, John, 2003) and Ryff scales of Psychological Well-being. 78 Vilnius citizens participated in this research, mean age - 75,83 (SD=±9,81). 62,8% female, 37,2% - male. The results revealed, that elderly people experience more positive than negative emotions. They use more cognitive reappraisal to regulate their emotions than expressive suppression. Positive emotions are connected to Autonomy ($r=+0,294$, $p<0,01$), Environmental mastery ($r= +0,518$, $p<0,01$), Personal growth ($r= +0.456$, $p<0.01$), Positive relations ($r= +0.371$), Purpose in life ($r= +0.538$, $p<0.01$) and Self-acceptance ($r= +0.356$, $p<0.01$) scales of Psychological well-being.

The specificity of adaptive opportunities of an organism under the influence of acute positive stress

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The study of the adaptability of an organism when subjected to stress on changing of functional systems is an urgent issue in modern psychology. This study, involving 79 people aged 25-35 years, assessed the physiological characteristics of the cardiovascular systems (heart rate, indicators of clinical and biochemical analysis of peripheral blood) before and after exposure to positive stress of creative activity. This showed that there were significant changes in physiological parameters (increase of heart rate, blood clotting, hormones, insulin, changes in blood cell counts) which indicates that the dominance of the sympathetic nervous system begins when stress is detected, which leads to the activation of adrenergic mechanisms and launch adaptive defense mechanisms. Thus it is shown that homeostatic changes reflect the relationship of the psychological and physiological levels of personality organization, which lie at the basis of physiological adaptive mechanisms, the purpose of which is the optimal response to a complex environment.

Impact of perceived stigmatization on quality of life and self-esteem in obese adolescents

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Background: Aim of study is to explore associations between quality of life (QOL), self-esteem and perceived stigmatization in obese adolescents. Previous research has shown that obese adolescents report lower QOL and self-esteem than their normal weight peers. But less is know about impact of perceived stigmatization on QOL and self-esteem. **Method:** The study sample consisted of 49 overweight and obese clinical adolescents group, mean age (SD) 14 years (1,6), 27 girls and 22 boys. They completed the KIDSCREEN-52, the Rosenberg Self-Esteem Scale and the Stigmatization Scale. **Results:** Increased perceived stigmatization is associated with decreased QOL ($r=-.529$, $p<.01$)and self-esteem ($r=-.485$, $p<.01$). Perceived stigmatization predicted QOL and self-esteem ($p<.001$). **Discussion:** This study contributes to describe the impact of perceived stigmatization on QOL and self-esteem in obese adolescents. Further research is needed to explore which variables, as coping strategies and support intervention, could help obese adolescents to preserve well-being.

Impact of attention training in ADHD pupils

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Objective of the research project was to create and evaluate the intervention technique of Attention Training. Design of this training intervention was inspired by Galperin's theory. The training course was attended by 18 ADHD or ADD diagnosed pupils (experimental group); and 29 pupils formed the control group. Mean age was 14 years. Training impact was assessed after completion (retest) by Bourdon's attention concentration test, and results were compared against those taken before testing. Findings pointed out to a statistically significant increase in attention performance in experimental group pupils ($t = 2.110$, $p < 0.05$), while performance in control group did not demonstrate any statistically significant changes. Results suggest that targeted training intervention may contribute to increased quality of attention in ADHD pupils, to increased school performance, and better acceptance of pupils in class – which in turn has positive impact on their overall mental health and quality of life.

Hospital setting and patients' well-being: Examining the role of perceived environmental quality

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Patients' well-being is influenced by the hospital objective physical environment. But how? Little attention has been paid to the psychological processes through which this relationship occurs. The general hypothesis that the relationship between hospital objective physical environment conditions and satisfaction with the care unit is mediated by perceptions of quality of hospital physical (e.g., comfort) and social environments (e.g., privacy) was tested. Participants were 206 patients, surveyed in inpatient and outpatient areas of Orthopaedic units from four Portuguese hospitals. Results showed that the link between the objective physical environment and patients' well-being is mediated through perceptions of hospital physical and social environments, and that this process is moderated by patients' status. For all patients, objective environmental quality predicts perceptions of hospital physical and social environments. However, the perceptions of the physical environment are predictors of outpatients' satisfaction, whereas inpatients' satisfaction is predicted by the perceptions of the social environment.

Perceived identity change as a predictor of intention to smoke cannabis

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According to the gateway theory, the use of less deleterious drugs increases the risk of consuming more dangerous substances. We test an identity-based explanation of this hypothesis: compared to non-consumer, consumer of soft substances should expect a lower identity change by becoming a consumer of hard substances. Our results confirm the gateway hypothesis: compared to

non-smokers of tobacco, tobacco-smokers are more likely to have tested cannabis in their life (total_N=6126). Moreover, 208 participants who never smoked cannabis completed a self report questionnaire addressing their identity change if they imagined themselves as a cannabis user. Items concerning their intention and attitude toward cannabis use were also included. Compared to non-tobacco smokers, tobacco smokers feel a less important identity change. Perceived amount of identity change (controlled for attitude) predicts their intention to use cannabis in the future. Our results indicate that smokers identity play a role in the gateway effect.

Evolution of information needs in patients affected by coronaropathy and hypertension

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Background: Several studies on chronic diseases have underlined the need for personalized healthcare, taking into account patients' information needs and preferences, to support their proactive health management. Our study aimed to explore the evolution of information needs in patients affected by two chronic diseases. **Method:** 338 hypertensive and 195 patients with coronaropathy completed an assessment questionnaire three times along 12 months. Descriptive analyses were conducted to identify information needs and trust degree in different sources of information; trend analyses were performed to analyze their evolution along time. **Findings:** For both the pathologies, the key information needs were for a full understanding of the disease; information about behavioral habits emerged as a minor theme. Specialists were perceived as the most trustworthy source of information over time. **Discussion:** Findings provide suggestions to assist healthcare professionals in tailoring quantity and quality of information for chronic patients in order to improve their disease management.

Relational resources in gastrointestinal disease: Social support, dyadic coping and closeness to other

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Within a biopsychosocial approach, the objective of this research was to explore relational resources involved in coping with gastrointestinal disease. Using a battery of tests on social support, dyadic coping and closeness to others we compared a sample of 103 patients with gastrointestinal disease to the reference populations and we examined possible differences between organic or functional diagnosis. The subjects with gastrointestinal disease, in contrast to the reference population, reported greater perceived social support, less communication of stress, higher common dyadic coping strategies and higher negative dyadic coping (distancing from others). Subjects with functional diagnosis, compared to organic diagnosis, reported higher closeness with their significant other and higher use of negative coping towards them. Preliminary results suggest that patients with gastrointestinal disease feel well supported. Nevertheless they show a sort of relational ambivalence and do not always seem able to use social support adequately to cope with their disease.

Feelings and experiences in a multiplace chamber: Psychology contributions to hyperbaric oxygen therapy (HBOT)

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Background: Investigate feelings, experiences and expectations of patients undergoing Hyperbaric Oxygen Therapy (HBOT). **Methods:** Exploratory study. 22 multiplace chamber's patients were interviewed using two different semi-structured questionnaires according to their condition (pre or post treatment). Data were examined using a content analysis approach. **Findings:** Emerging categories from pre-treatment patient data included indications; functioning; safety rules of HBOT; distraction strategies; associated feelings; communication with health team; coping abilities; efficacy. Whereas post-treatment categories included first session memories; negative feelings associated to HBOT; treatment benefits; distraction strategies; discomfort; side effects; thoughts of quitting treatment; coping abilities; interpersonal relations with health team. **Discussion:** Most findings are related to anxiety, probably caused by unawareness of this kind of treatment. Certainly, previous experiences and individual variables cannot be dismissed. Literature available briefly mention anxiety as a potential adverse effect of HBOT, what highlights the need of research to improve patient's ability to adjust and cope.

Self rated health in hypertensive patients

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Background: Self-rated health (SRH) in hypertensive patients (HP) may influence their motivation for treatment and seeking for psychological help. The aim of this study is to check SRH in HP undergoing treatment in rural ambulatory of Kaunas region. **Methods:** Working together with physician were evaluated 52 HP and 29 patients with other diseases undergoing treatment in out-patient clinic by using SRH questionnaire consisting of 23 items, $Cr.\alpha=0.8$. **Findings:** No significant differences of SRH were found in patients with different blood pressure (BP) level. Higher systolic BP was related to less workability and worse evaluation of physical health. SRH in patients with HP was found significantly worse than in patients of control group. **Discussion:** SRH evaluation may be used by health psychologists providing non-medicament treatment for HP.

Need for volition in the course of action? Coping with self-regulatory difficulties in exercise goals

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Background: There is increasing evidence that difficulty to maintain regular exercise, despite strong intention, is caused by depleted self-regulatory resources (Hagger et al., 2010). Choosing an activity that is intrinsically rewarding (Ryan et al., 2009), planning ahead (Gollwitzer, 1999)

and acting out of habit (Aarts, 2007) are efficient ways to spare self-regulatory resources on the short and long term. This study aims to assess the interplay between these constructs in the prevention of self-regulatory difficulties. **Methods:** Over two months after a race event, 511 adult runners completed a questionnaire measuring self-determined (incl. integrated) motivation, barrier self-efficacy, exercise habit, action and coping planning and self-regulatory difficulties in exercise goals (Chamberland et al., 2013). **Findings:** A path analysis suggested that autonomous motivation, barrier self-efficacy, action planning and habit prevent self-regulatory difficulties. Interestingly, a relationship between coping planning and habit appeared when ongoing maintenance was assessed at t2, although absent shortly after the race (t1) when habit was at its peak. **Discussion:** These results highlight the temporal interplay between motivational and cognitive constructs and underline goal-dependency of habit and self-regulatory coping in autonomously motivated and habitual exercisers.

Forgiveness and spiritual coping among alcoholics entering therapy, detoxified alcoholics and nonalcoholic controls

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Background: The main objective of the study was to compare the level of forgiveness and spiritual coping between alcoholics entering treatment (AET) and nonalcoholic controls (NC). Additionally, the group of detoxified alcoholics (DA) was included into the study. **Measures:** 239 AET, 239 sex- and age-matched NC and 79 DA were examined. The Polish version of Forgiveness Scale (Touissant et al., 2001) and the author's Spiritual Coping Questionnaire (consisting of 2 general domains of spiritual coping: positive (personal, social, natural, transcendent) and negative (personal, social and transcendent)) were used. **Results:** The general level of forgiveness was the lowest in the AET. AET ($p < 0.001$) and DA ($p < 0.001$) more often used negative spiritual coping than NC. Interestingly, DA more often used positive spiritual coping than AET ($p = 0,049$). **Discussion:** The study makes contribution to the studies concerning the relationship between spiritual sphere of functioning and alcoholism.

Anxiety, depression and self-esteem: Evolution during a six-week rehabilitation for alcoholic patients

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Background: Improving self-management among alcoholic patients has become crucial for health centres. This study measures the evolution of anxiety, depression and self-esteem during a six-week rehabilitation for alcoholic patients. **Methods:** In 2012, two hundred and nine alcoholic patients filled in the HAD questionnaire (the Hospital Anxiety and Depression) and the Self-esteem scales (75% men). This study allowed us to compare the evolution of the scores of both tests at two different moments (self esteem) and at three different moments (anxiety and depression) during the stay. **Findings:** Results show significant decreasing in anxiety and depression; and significant increasing in self-esteem. Self-esteem is inversely correlated to anxiety and depression. **Discussion:** No surprises about these results. This survey has for objective to develop future

research taking into account the influence of a program of physical activities and therapeutic education on anxiety, depression and self-esteem.

Investigating the influence of interactive game consoles on physical activity motivation and mood: Wii vs Kinect

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Background: This study explored the influence of the Theory of Planned Behaviour (TPB), past behaviour and mood on physical activity (PA) intentions, while also assessing the effect of an exergaming intervention. **Methods:** A randomized design (N=120; 40% males; Mean age = 29.03; [SD=12.25]) tested the TPB, past behaviour, PA importance and mood. Playing or observing the Nintendo Wii (Tennis) or the Xbox-Kinect (Adventures) formed the intervention. **Findings:** Multiple regression confirmed the TPB to be a strong model in predicting PA intentions ($R^2=.58$; $p<.01$), with behavioural importance explaining 18% ($p<.01$). MANCOVA revealed an increase in PA intentions ($p<.05$), PBC ($p<.001$) and positive affect ($p<.001$) and a reduction in negative affect ($p<.01$) after game play. The type of game (competitive vs collaborative) and console had no effect. **Discussion:** Findings support the efficacy of the TPB and confirms that playing interactive game consoles can encourage beliefs in control, mood and motivation towards PA.

Validation and psychometric evaluation of medical outcomes study social support scale in elderly Portuguese people

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Background: The perception of social support in the elderly contributes to their quality of life. Our objective was evaluate the psychometric properties of social support instrument in elderly Portuguese people. **Methods:** Quantitative study. The MOS-SSS-P (Sherbourne & Stewart, 1991 - 20 items) and socio-demographic questionnaire measures were administered to 247 participants; mean age was 72,81 years ($\pm 0,377$ years), 55,9% were female, 69,6% married, 76,5% living with a partner/family; 30,4% had never been married. 23,6% living alone. 94,3% were retired. **Findings:** The values of Cronbach's alpha ranged between 0.970 and 0.967. The item with the highest variability in relation to other items is 17, in 84.8%. The highest value refers to the factor "Emotional Support" with a value of α of 0.945 and the lowest value reported is 0.887 for the factor "Material Support." **Discussion:** The MOS-SSS-P was observed to have adequate reproducibility and internal consistency.

Regulatory aspects pf subjective well-being

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The main objective of the study was examining the relations between subjective well-being (SWB) and personal regulatory styles. 99 young persons participated in the empirical research with the use of Scale of Subjective Well-Being (Perrudet-Badoux, Mendelsohn, Chiche) methods for estimating of life-meaning orientations, styles of self-control, stress overcoming strategies, personal creativity. Numerous correlations between the studied parameters were revealed. In general, high level of self-regulation is connected with mood stability, positive self-esteem of own health, but also - with high tension, sensitivity, increased need for social support. We may conclude that the correction of the personality's regulatory aspects can have a significant impact on his or her SWB, but the nature of this impact will be different for different SWB aspects. Certain level of psychological discomfort, accompanying any progressive development, motivates a person to a social creativity and acquisition of constructive coping strategies, but reduces the satisfaction with everyday life.

Work engagement as a moderator between emotional labor and burnout

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Background: Emotional labor is a unique work stressor that affects psychological well-being of employees. Two forms of emotional labor are identified, namely surface acting (i.e. modify the external emotion only) and deep acting (i.e. regulate both external and internal emotion) and they relate differently to burnout (Hulsheger & Schewe, 2011). This study explores whether work engagement moderates the association between emotional labor and burnout. **Methods:** Questionnaires were distributed to 254 teachers in China. Maslach Burnout inventory (Maslach & Jackson, 1986), Utrecht Work Engagement Scale (Schaufeli & Bakker, 2003), and Emotional Labor Scale (Diefendorff, Croyle, & Gosserand, 2005) were used to measure burnout, work engagement, and emotional labor, respectively. **Findings:** Results show that surface acting was positively related to two burnout dimensions, including emotional exhaustion and depersonalization, whereas deep acting was negatively related to one burnout dimension, namely lack of personal accomplishment. Moderated regression showed that work engagement interacted with surface acting in predicting depersonalization: Employees with lower work engagement and frequently using surface acting tend to report higher level of depersonalization when compared to employees with higher work engagement. **Discussion:** Strategies to enhance employees' psychological well-being in the workplace will be discussed, such as strengthening of social support from supervisors and coworker.

Medical adherence among hypertensive patients in Malaysia

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A study was carried out among hypertensive patients in Malaysia to examine their medical adherence level. There were two major research questions: What are the general adherence score among hypertensive patients in Malaysia? Do men and women differ in adherence scores? Self-report Morisky Medical Adherence Scale (MMAS-4), 4 items, with three languages (English, Malay, and Chinese) was used as the instrument. 154 participants involved were recruited using quota sampling method. Participants with the following characteristics were eligible for the study: (a) Diagnosed with hypertension and currently taking antihypertensive medications, (b) outpatient,

(c) ≥ 30 years old, ≤ 80 years old. Results indicated that mean scores were 2.75 for males, and 3.09 for females; significant difference between genders in medical adherence ($p < 0.05$); significant differences between genders in stopping medications when feeling better ($p < 0.05$); and significant correlation in age and remembering to take medication ($p < 0.05$). Results obtained serves as reference to authorities to improve medical adherence, factoring in gender considerations.

Policy interventions in promotion of physical activity: Policy makers' attitudes and perceptions

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Background: To improve the translation of evidence concerning effective interventions to promote physical activity into policy, it is important to take into consideration policymakers' attitudes and perceptions. **Methods:** An e-mail survey of 175 mayors of the Emilia Romagna and Piemonte regions (Italy) was conducted. This survey investigated mayors' attitudes toward physical activity promotion and related perceived barriers. **Findings:** Most of the participants rated as very important the promotion of physical activity. However, they think it is not so easy to motivate citizens. Among the most feasible ways to promote physical activity, participants reported: supporting the use of existing parks and promoting physical activity in schools. Most of the participants reported that loss of resources is the most important barriers to promote physical activity. **Discussion:** We discuss the use of policy briefs on physical activity and describe its potential role in improving communication of research in policy-making settings.

Elaborating a screening scale for the evaluation of passive-aggressive behaviour

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The present research's objective was to develop a comprehensive scale for the screening of passive-aggressive behavioral type in the workplace. The following steps were taken in order to achieve this objective: 75 items were developed and adjusted, based on the passive aggressive disorder's characteristics (literature review and case studies). The resulted scale was administered on 113 subjects. After data collection, a SPSS program was used for data analysis for the calculation of the index of discrimination and the Alpha Cronbach coefficient (.908). The number of items was reduced to 29 highly relevant items. Then, an exploratory factor analysis was conducted to determine the number of factors that will be part of the questionnaire. The resulting items will be a part of a multiscale measurement system to be used for the evaluation of "toxic behavior" in the workplace.

Influence of follow-up on the patients perceptions in terms of support, coping and abstinence self-efficacy

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The literature shows that self-efficacy has an influence on the abstinence to alcohol. This study aims to precise the relationship between self-efficacy and other factors, and if it is related to the nature of psychological treatment. The study focused on non-abstinent patients (54 men, 17 women, average age: 45 y-o) consulting in a Care Centre for Support and Prevention in Addiction and involved in different types of therapy (group or individual) and with different duration (short or long term). Perceived social support, coping self-efficacy and abstinence self-efficacy were evaluated with self-assessment scales. Linear regressions indicated that social support predicts perceived coping ($\beta = .231$; $p = .053$) and abstinence self-efficacy ($\beta = .352$; $p = .003$). That perceived coping predicts abstinence self-efficacy ($\beta = .578$; $p = .000$; $R^2 = .324$). The nature of follow up seems to be linked to self-efficacy with specific situations (social pressure, opportunistic situations).

Psychotherapy in the public service: Assessment and drop out

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Introduction: Scientific literature says that drop out is a frequent event when a psychotherapy is starting. Many times drop out occurs even before taking charge, during the assessment of the patient. The present study aims to assess how many patients drop out during the psychological assessment. **Methods:** This observational study was conducted in the period of 12 months. The research deals with patients who ask for a psychotherapy in a public hospital. **Results:** The sample consisted of 140 patients, 49.3% have not completed the psychodiagnostic course. Patients who completed the course are 50.7%, of these: 9 were then sent to another service, 32 have concluded, but not accepted psychotherapy. Only 46 patients (32.9%) agreed to start a course of psychotherapy. **Conclusions:** According to this study the number of patients who drop out early is very high. This suggests how can be a delicate time for assessment and how the design of services must take these data into account.

Impact of social representations on medicines consumers' behavior

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The demand for pharmaceutical medicine is constantly increasing. France's individual spending is higher than any other European country. The present research aims at analyzing this observation throughout social cognitions explanations. In the light of the social representations theory (Moscovici, 1961), the hypothesis of the relationship between a consumption of medication and the representation of it has been explored. Medicine has many reasons to be an object of representations for many social groups (Niquette, 2005). In a first study (Implicit Association Test, N

= 54) we have collected the main words related to the object “medicine”. In a second study (Test of Context Independence, N = 166), participants were divided with regard to age, gender, income, level of education and treatment. Each social group has a unique interaction with medicine, which must be considered in order to adapt health recommendations to everyone. The pharmaceutical medicine marketing must be rearranged to be simplified.

Management of therapeutic regime in people with diabetes

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Background: It is necessary to know the status of management of therapeutic regime in people with diabetes to minimize the development of complications. **Methods:** A descriptive study was conducted on a sample of 84 diabetics. Sample mostly female (52.4%) with 67 years with the primary school. We used the scale: “Summary of diabetics self-care activities” of Glasgow, Toobert, Hampson (2000), the portuguese version (Lopes and Bastos, 2004). **Finding:** The dimensions in which participants obtained better care were in the taking of medication (average M = 6.92, SD = 0.76) and feet care (M = 6.41, SD = 1.47). The worst were the physical activity and glycemic control (M = 3.47, SD = 2.01 and M = 3.44, SD = 2.45). **Discussion:** The gender, age and literacy influence adherence. Implement encouraging programs to adherence, glycemic control and physical exercise emerge as promoters of clinical management and diabetes epidemic.

Interpersonal preferences and breast screening behaviour: The role of attachment

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Background: Breast screening occurs in interpersonal contexts, yet how differences in dispositional styles of relating may be relevant to breast health has not been examined. Preliminary work in other areas indicates that attachment – a dispositional style of relating to others – may offer insight into screening. **Methods:** Participants were 1204 diverse women aged 49 – 70 years living in Brooklyn, New York. Women completed measures of mammography and BSE frequency and attachment, together with known predictors of screening. **Findings:** Regressions showed that attachment predicted mammography and BSE screening, even when controlling for established predictors. As hypothesised, fearful avoidance predicted less frequent mammography and BSE and preoccupation more frequent BSE. Contrary to expectations, security predicted fewer mammograms, while dismissiveness did not predict screening. **Discussion:** Identifying the interpersonal characteristics predicting screening may help illuminate the interpersonal barriers to breast screening and guide the development of interventions suited to normative.

Changing handwashing behavior in southern Ethiopia: A longitudinal study on infrastructural and commitment interventions

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Diarrheal disease kills over 1.5 million children every year. The most effective prevention against it is handwashing with soap. Based on a pre-intervention study in southern Ethiopia, two handwashing interventions were developed and tested in rural Borana villages: the construction of handwashing-stations and primary caregivers' public commitment. A knowledge formation task served as control intervention. Data was collected longitudinally before and after the interventions by means of structured observations and interviews with primary caregivers of each household. A total sample of 463 households was obtained. Data was analyzed by means of regression and mediation analysis. Baseline results revealed social norms and commitment as crucial determinants of handwashing. In addition, observations revealed a lack of handwashing facilities. Initial analysis of the longitudinal data shows that public commitment and infrastructural interventions are more effective in changing handwashing behavior than knowledge formation alone. The results emphasize the significance of evidence based health interventions.

Emotion regulation, distress and activity limitations following stroke

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Background: Following stroke, there is evidence of Activity Limitations (AL), difficulties with emotion regulation (ERs) and psychological distress. Anxiety has been found to predict AL following stroke, and we hypothesised that ER might moderate this relationship. **Method:** 70 individuals (46 men; mean age 65.44 s.d 12.56) completed the Difficulties of Emotion Regulation Scale (DERS) a 36 item measure with six subscales assessing difficulties in emotion regulation (Gratz & Roemer, 2004), HADS anxiety and depression and AL items of the modified SIP (UK version) one-month following stroke. **Results:** In regression analysis, HADS anxiety ($\beta = -.316$) and DERS Goals domain measuring difficulties in engaging in goal-directed behaviour when upset ($\beta = .326$) predicted AL, $F(8, 61) = 3.11, p < .01$. **Discussion:** The combination of higher levels of anxiety with greater difficulties in concentrating and acting on goals when upset may interfere with recovery and result in greater AL following stroke.

Prospect theory in communication with Irish parents about over-the-counter cough and cold medicines (OTCCMs) in young children

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Background: Medication-use was addressed using prospect theory and recommendations issued by the Irish Medicines Board. Parents' reactions to information were predicted to vary depending on the message-frame presented in online interventions. **Method:** A 3x3 mixed-ANOVA measured attitudes toward, intentions to use, and use of OTCCMs at three time points. Ninety-six parents were tested at baseline, post-intervention and follow-up. The between-groups measure was the message-frame (loss, gain or control). **Findings:** Attitudes toward, intentions to use, and use of OTCCMs decreased overtime. A time-by-group interaction was found for attitude. Positive and negative groups displayed significant changes overtime ($F(1.62, 69.98) = .563, p < .05$, partial $\eta^2 = .2$). Framing was not found to have a significant effect on intentions or behaviours. **Conclusion:** Theories within Health Psychology literature were supported. Longer follow-up and more diverse samples are required in replication studies. Further research should explore the

mechanisms involved in message-framing. Prospect theory may be useful in communicating messages to parents.

Quality of life as perceived by individuals with neurological conditions: A Q methodology study

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Background: Quality of life is increasingly measured in healthcare services and research. Its subjective nature makes it difficult to understand and assess. The aim of this study was to establish the perceptions of quality of life of individuals with neurological conditions. **Methods:** Q Methodology, an approach that draws on qualitative and quantitative paradigms, was used to obtain the views of 25 participants. Each participant was required to sort 37 statements developed from the literature indicating their level of agreement with each. **Findings:** Following factor analysis, three factors or viewpoints emerged. Viewpoint 1 relates to independence, choice and control. Viewpoint 2 highlights maintaining dignity, values and aspirations. Viewpoint 3 emphasises actively contributing to society. **Discussion:** The findings demonstrate that assumptions cannot be made by professionals as to how individuals with neurological conditions perceive quality of life and suggest careful consideration needs to be given to measuring this subjective concept in healthcare.

Consequences of peace operations in the military psychological health

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International Peace Operations expose the military to exponential traumatic events with consequences to their mental health. Many studies have been realized with the aim to evaluate those military before and after their return from the conflicts. This research pretends to evaluate the prevalence of PTSD and the pathology associated with it in a sample of 501 portuguese military that participated in Peace Operations and also the psychosocial variables relationship with PTSD. For this propose were used assessment tools related to the traumatic event, emotional adjustment, self esteem, coping and social support. The results revealed that 14,5% of the military were exposed to traumatic events, 3% filled the PTSD criteria and 11,5% presented PTSD symptomatology. It was verified a strong association between the PTSD and psychopathology. This study pretends to contribute to detect military with PTSD before and after the mission and to implement preventive programs of intervention and attendance.

Italian version of the parental attitudes scales (PAD): Preliminary results of the validation study

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Background: the Parental Attitudes Scales (PAD) is a 46-item self-administered questionnaire measuring parental attitudes. We had the aim to validate the Italian version. **Methods:** the PAD was administered to 366 Italian parents (177 males, 189 females) having children between three months and eight years. Principal Component Analyses were conducted and alpha coefficients explored. The concurrent validity was examined correlating the PAD scores with those of the Family Assessment Device (FAD) and the Positive Affect Negative Affect Schedule (PANAS). Test-retest reliability was studied. **Findings:** PCA analyses suggested that several items of the questionnaire perform poorly. Results supported a three-factor solution consisting of 38 items and accounting for 23,4% of the variance. Cronbach's Alpha for the short version was 0.72. The PAD scores had statistically significant correlations with the PANAS and the FAD dimensions and were stable over the time. **Discussion:** the short version of the questionnaire seems valid and reliable.

Personality characteristics of children of alcoholics

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Background: individuals who grow up in alcoholic families seem to have personality and clinical characteristics different from those who grow up in non alcoholic families. We studied these dimensions in children of alcoholics (COAs) compared with children of non-alcoholics (non COAs). **Methods:** personality and clinical characteristics were measured by means of the Minnesota Multiphasic Personality Inventory for Adolescents (MMPI-A). COAs and non COAs were matched for age and gender. **Findings:** 26 COAs and 26 non COAs were compared. COAs showed statistically significant higher scores for the following MMPI-A scales: paranoia, schizophrenia, eccentricity, alienation, anxiety, obsessions, mania, psychasthenia, use of substance, immaturity, school difficulties. **Discussion:** COAs and non COAs seem to have different psychological traits and a different clinical pattern if compared to non COAs.

The impact of adverse childhood experiences on health status in a Romanian university sample

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The exposure to adverse experiences during childhood (ACEs) can have negative long term effects on people's mental and physical health. ACEs include verbal, physical, or sexual abuse, as well as household dysfunctions. Using a WHO methodology (ACE Study), the present study investigated the relationship between exposure to ACEs and health problems (depression, headaches, insomnia, digestive problems, asthma). Secondly, we investigated the relationship between ACEs and engaging in health-risk behaviors (alcohol and drugs consumption, smoking, sexual risk behaviors). Our sample consisted from 2088 Romanian university students. Results indicate a strong graded relationship between exposure to ACE and engaging health-risk behaviors and health problems. The odds of having health problems (depression, headaches, digestive problems, asthma) increased as the number of ACEs increased. The odds ratio of engaging in alcohol and

drug consumption, smoking, sexual risk behaviors were higher as the number of ACEs increased. Several preventive and national policy recommendations are presented.

The masticatory capacity is related to perception of oral health in the elderly?

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Background: To evaluate the impact of masticatory capacity index in the perception of oral health of the elderly. **Methods:** Cross-sectional descriptive study consisting of 435 institutionalized elderly in nursing homes and day centers in the municipality of Viseu, 133 (30.57%) males and 302 (69.43%) females. Present a minimum age of 57 years and maximum of 105 years, with a mean age of 80.94 years. Questionnaire on perception of oral health and masticatory capacity index. **Findings:** 55.17% of elderly people have a perception of good oral health. 27.36% have a perception of reasonable oral health. 33.79% have a perception of poor oral health. 77.01% have a poor masticatory capacity. **Discussion:** We note that there is a low negative association ($r=-0.257$, $p=.000$) between masticatory ability and perception of oral health, inferring that the larger the masticatory capacity, the better the perception that the elderly have about their oral health.

Quality in mental health services: Users and professionals satisfaction

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Background: Quality in mental health services is a key element in the evaluation of institutions. We aimed to know the degree of satisfaction of users and professionals of mental health services, which is one of the quality indicators. **Method:** Self-completion questionnaire, evaluating global quality service and satisfaction with the service (users) or job satisfaction (professionals). Participated 9 institutions, 34 professionals and 107 users. **Findings:** Users showed high satisfaction with mental health service, particularly the user/professional relationship. Professionals showed high satisfaction, particularly related with the professional performance. Both groups considered that theirs were high quality services, despite professionals and users valorize different aspects of the service quality. **Discussion:** Satisfaction has an important role in the evaluation of quality services, and different agents have different perspectives of which aspects are important for a quality service. A policy of quality ensures adequate responses to requests from different stakeholders, and greater profitability and efficiency.

Contingency management for the reduction of cannabis use and relapse in first episode psychosis

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Background: The CIRCLE Trial is investigating the clinical and cost-effectiveness of a contingency management programme for the reduction of cannabis use and relapse in those with first episode psychosis. Contingency management is an innovative new behaviour change approach that is being tested in this population, providing systematic rewards-based reinforcement for abstinence from cannabis use. **Methods:** An in train randomised controlled pilot (target n=68) held at NHS Early Intervention Services was designed to inform feasibility and implementation of a full RCT. **Findings:** Evaluation of the pilot design and implementation phases resulted in key learning points for the full RCT. These included implications for recruitment and engagement with a first episode psychosis population, delivery of psycho-education packages, monitoring of cannabis use, rewards scheme delivery and integration with health services. **Discussion:** The challenges and helpful aspects to this treatment approach illustrated will inform the upcoming RCT, integration of research with real world health services, and future developments for using incentives to encourage behaviour change across key health areas.

Sport and improving quality of life for people with disabilities

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Background: Kinetic activities have positive effect on variety of capabilities in persons with disabilities. The aim was to investigate whether there is a difference in the quality of life of people with disabilities who are involved in sport vs. those who are not. **Methods:** 175 persons with disabilities were classified into four categories (persons with physical disabilities, hearing disabilities, visual disabilities and mental disabilities). Subjects were divided into two groups: one involved in sport for people with disabilities and other not. The WHOQOL-BREF (WHO) was used, which measures the four domains of quality of life. **Findings:** The results show the significant differences in all domains of quality of life of people with disabilities depending on their engagement in sports. **Discussion:** Sport has significant impact on quality of life of persons with disabilities and the findings indicate the importance of their inclusion in sport as a part of rehabilitation.

Differential attrition in randomized controlled trials: A meta-analysis

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Background: As differential attrition is regarded as a major threat to internal validity, this study identifies to what degree differential attrition occurs in RCTs, and factors that are related to this. **Methods:** Meta-regression analyses using mixed-effects models for a random sample of 100 RCTs. Eligibility criteria for selecting studies were primary publications of two-arm parallel RCTs, containing human participants and one or multiple patient-dependent follow-up measurements. **Findings:** A significant amount of differential attrition was observed in 8% of the trials. However, the average differential attrition rate was 0.99 (95%CI: 0.97-1.01) and no indication of heterogeneity was found, suggesting that the occurrence of differential attrition is unrelated to particular design factors. **Discussion:** Differential attrition did not generally occur in RCTs covering a broad spectrum of clinical areas and future research needs to look at differences regard-

ing health behaviour change trials, because they have a higher risk of bias than pharmaceutical/medical trials.

Adolescents' life satisfaction, self-image and self-rated health related to their social context characteristics

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Hypothesis: Adolescent's social networks' characteristics, such as the family, peer and school relations prove a determining role in the level of life satisfaction, self-image and self-rated health status. **Instruments:** Cantril Ladder, RSES, HBSC (Currie et al, 2012) items regarding the well-being and social factors. **Participants:** 365 Romanians 12 graders, from the 18 year age group. **Results:** Life satisfaction among teenagers living in the presence of the fathers is significantly higher than in their mates facing the absence of the father in family. The presence of brothers shows relevant associations with a favorable body-image and weight-control behavior. Teenagers spending more time with peers proved better health perception. Well-being showed strong association with perceived school acceptance by peers and teachers and supportive class atmosphere. **Discussion:** Life satisfaction is a reliable predictor of adolescents' social functioning, and the quality of their social context is relevant for the level of well-being and global self-assessment.

Coping in the adolescents with spina bifida

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Background: The Spina Bifida has a number of external manifestations, which transform the adolescent's life. Descriptive study analyse the coping style of the adolescent with spina bifida. **Methods:** 22 adolescents, 36, 4% girls and 63,3% boys. The instrument: Inventory of Stress, Across Situation Questionnaire, The Self Perception Profile for College Students. **Findings:** Girls have a higher self-esteem than boys and also have a higher level of stress. Girls tend to use more withdraw when related to studies, parents, friends and boyfriends. The intern coping increases with the age, when related to the boyfriends, future and parents. The higher the father's age, less active and internal coping strategies are used and the higher the mother's age is, less withdraw is used. **Discussion:** The adolescents with spina bifida use dysfunctional coping when related to variables regarding personal relationships. So, it is necessary to develop multidisciplinary programs as competence training for these adolescents.

Caregiver burden in patients with alzheimer disease

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Background: The Alzheimer Disease (AD) includes a cognitive and behavioral deterioration, which is reflected in the activities of daily living and quality of life. This process and the changes that would arise are able to cause the caregiver burden. **Methods:** 100 caregiver, women 69%. Descriptive study to determinate the coping strategies have an effect on caregiver burden. **The instrument:** QASCI; Ways of Coping Questionnaire. **Findings:** Family support, financial burden and the perception of efficacy and mechanisms of control are important determinants of overload, while reactions to demands and satisfaction with the role and patient appear to mitigate the burden. Women have more implications on personal life. The more mobilized Coping strategies were search for social support and self-control; and the one less used was escape-avoidance. **Discussion:** The Coping strategies predict the burden. The evidences found sustain the necessity of an investment in the Coping strategies and prevention of the burden.

Relationship between stress and insomnia in higher education students

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Background: In this study we tried to analyse the relationship between occurrence of insomnia and stress in Higher Education students. **Methods:** The sample included 636 higher education students, 74,69% women, average age 22 years old. As data instruments we used the Sleeping Habits Questionnaire, the General Sleeping Questionnaire, the Socio-demographic Data Questionnaire and the Vulnerability to Stress Scale – 23 QVS (Vaz Serra, 2000). **Findings:** We observed that 27,2% were vulnerable to stress and 84% of the students suffered from insomnia. There was a positive correlation, suggesting that increased stress is associated with the occurrence of insomnia (Spearman correlation = .27, $p = .000$), being the variability of this probability 9.3%. Students with low economic resources are more likely to suffer from insomnia (Spearman correlation = .07, $p = .045$), being the variability of 0.6%. **Discussion:** The Students with low economic resources and vulnerable to stress have bigger probability of suffering from insomnia.

Depressive humor and insomnia in higher education students

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Background: In this study we tried to analyse the relationship between depression and the occurrence of insomnia in Higher Education students. **Methods:** The sample included 636 higher education students. We used the Sleeping Habits Questionnaire, the General Sleeping Questionnaire, the Socio-demographic Data Questionnaire and the Depression's Clinic Evaluation Inventory. **Finding:** On average, women have higher incidence of insomnia than men (U Mann Whitney = 28309.50; $Z = -4.93$, $p = .000$). We observed that 84% of the students suffered from insomnia and 19,5% mention depressive symptomatology. Depressive humor associated to a bigger occurrence of insomnia, (Spearman Correction = .59; $p = .000$) explaining 35,4% from the variability of insomnia. Students with low economic resources are more likely to suffer from insomnia (Spearman Correlation = .07, $p = .045$), being the variability of 0.6%. **Discussion:** The probability of suffering

from insomnia is associated to the fact of having low economic incomes and present depressive humour.

Delivering Bad News: SPIKES Model – its applicability to an undergraduate Pharmacy programme

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Background: Delivering bad news is an emotive and stressful task for professionals and highlights the need for good communication practice based upon a ‘patient –centred’ approach. An innovative approach, the S-P-I-K-E-S model provides a systematic and structured way for pharmacists, to deliver bad news in an effective and empathetic manner. A pilot project was undertaken to assess pharmacy students’ experiential knowledge and understanding of the process of delivering bad news. **Methods:** A qualitative content analysis of the students’ responses was undertaken and then mapped against the SPIKES model. **Findings:** 58% of pharmacy students had delivered bad news; yet the majority indicated that it was perceived as difficult. Key findings showed that students jumped too quickly to solution -focused remedies. **Discussion:** It is crucial that the SPIKES model be integrated into professional education.

Mother-daughter relationships, media messages, and the prevention of eating disorders

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Background: Mother-daughter (M-D) relationships are pivotal in the development of eating behaviors and body acceptance; however scant attention has been directed to the M-D relationship as a resource protecting against disordered eating behaviors. **Methods:** Three data sets were obtained using in-depth interviews and grounded theory: 22 Jewish- Israeli self-identified fat women, 24 Jewish- Israeli mother-daughter pairs from six different cultural/ethnic groups and 11 American Jewish mother-daughter pairs of normal weight women. **Findings:** M-D relationships both transmit hegemonic media-influenced, and alternative, counter-hegemonic, body-related messages with regard to body-image and demonstrate specific strategies for resisting eating disorders. We found seven strategies for resistance to media messages that were mentioned by women as helping them resist pressure to lose weight, be thin and disconnect from their bodies. **Discussion:** Exposure to alternative information and messages or lack thereof can have a significant impact on the attitudes and behaviors of both sides of the M-D relationship.

Risky driving in young people: The effect a driving intervention on driving behaviour its determinants

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Background: Young drivers are greatly overrepresented in road traffic accidents in the UK. Interventions such as Safe Drive Stay Alive (SDSA) aim to alter risky driving behaviour but are often not evaluated. We evaluated the Fife SDSA programme for effectiveness and for determinants of risky behaviour. **Methods:** A pre-post design recruited 16-18 year old intervention participants from schools. 87 participants completed both baseline and 3- month follow-up evaluations, with an additional 451 participants completing the evaluation either at baseline or follow-up. Participants completed evaluation questions based on the Health Action Process Approach (HAPA) model. **Results:** No overall intervention effects were found. There was a significant increase in self-efficacy among females ($p=0.03$) and risk takers ($p=0.014$). The HAPA model predicted driving intentions. **Conclusions:** There is no significant overall effect of SDSA, however some small effects in sub-analyses. The study gives promise to the application of the HAPA model to driving behaviour.

Facilitating health behaviour change in looked after young people: Evaluation of an innovative broad intervention

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Background: Looked after young people (LAYP) are under the supervision of social services and have poorer lifestyles than peers. Objectives were to develop and evaluate a health behaviour change intervention for LAYP to improve their lifestyle. **Methods:** The intervention was developed from qualitative research, evidence and theory, delivered to individuals, aiming to motivate and provide LAYP with the skills for change around sexual health, smoking, activity, healthy eating, alcohol and drugs. Evaluation data was undertaken before ($N=50$) and after its delivery ($N=37$) using behaviour questions. Sessions were evaluated using a behaviour change techniques (BCT) taxonomy. **Findings:** Significant improvements were found in using contraceptives ($p=0.016$), attending sexual health services ($p=0.031$) and exercise ($p=0.028$). A range of BCTs were drawn on including, motivational interviewing, problem solving and planning social support. **Discussion:** Early evaluation data shows positive change in several areas. The approach of interventions targeting a range of lifestyle issues is promising.

The distressed (Type D) personality mediates the relationship between remembered parenting and psychological distress in cardiac patients

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Background: The distressed (Type D) personality (i.e., the combination of negative affectivity and social inhibition traits) has been associated with anxiety and depression and adverse health outcomes in cardiovascular disease. Dysfunctional parenting styles may promote the development of a Type D personality. We examined whether remembered parenting was associated with anxiety and depression in cardiac patients and whether Type D personality mediated this relationship. **Methods:** 558 cardiac patients were included in the current study (435 patients treated with percutaneous coronary intervention (PCI) and 123 patients with congestive heart failure (CHF)). The

Hospital Anxiety and Depression Scale (HADS), the Type D Scale (DS14), and the Remembered Relationship with Parents (RRP10) scale were used to assess anxiety and depression, Type D personality, and remembered parenting, respectively. **Findings:** Remembered parenting was significantly associated with higher anxiety and depression levels and with Type D personality (β 's range [.19-.38], all p-values <.01). In multivariable linear regression analyses, Type D personality accounted for 25-29% of the variance in anxiety and 23-46% of the variance in depression (all p-values <.001), while remembered parenting was no longer significantly associated with any of these domains. Sobel tests indicated that Type D personality mediated the relationship between remembered parenting and anxiety and depression (all p-values <.001). **Discussion:** Type D personality mediated the relationship between remembered parenting and anxiety and depression in both PCI and CHF patients. In future psychological intervention trials focusing on patients with a Type D personality, it may be important to address remembered parenting.

How does engagement in bullying behavior contribute to health complaints among adolescents?

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Background: The aim of this study was to explore association between engagement in bullying behavior (as aggressor or victim) and multiple health complaints among adolescents. **Methods:** Sample of 4610 elementary school pupils (mean age 13.15 years, 48.3% boys) from cross-sectional HBSC study in Slovakia answered questions about health complaints and bullying behavior. Dichotomized responses were used in logistic regression crude and adjusted for age, gender and family affluence. **Results:** Logistic regression showed that being engaged in bullying as aggressor ($p < 0.001$, OR=1.46 95%CI 1.27-1.66) or as victim ($p < 0.001$, OR=1.78 95%CI 1.54-2.06) was associated with higher probability of multiple health complaints. Adjustment for age, gender and family affluence did not change these findings. **Conclusion:** Multiple health complaints among adolescents seem to be connected with engagement in bullying behavior and might be regarded as warning symptom for parents and teachers. Surprisingly, they were more likely not only among victims but also among aggressors.

The psychosocial aspects of motherhood among drug-addicted mothers

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The purpose of this study is to compare the different, complementary or similar approaches to motherhood, the well being, self esteem, social support and parental skills, between drug-addicted mothers and the control group. Moreover, we would like to know if motherhood could be a trigger for them to reconsider their consumption. 40 mothers have taken part in this study (20 drug addict mothers and 20 control group; all of them have children under 7 years old). The results show that there are some significant differences between both groups regarding self-esteem, social support, life satisfaction, well being, maternal experience, but not as far as parenting skills are concerned. Significant links exist between these variables and well being. We underline the fact

that the mother-child link and the maternal experience play a more important part in the well being of drug addict mothers than they do for other mothers.

Psychological and spiritual well being in relation to coping styles of Pakistani adolescents

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The present study was conducted to investigate the relationships between Psychological, Spiritual Well-Being and Coping styles among Pakistani adolescents. For this purpose, a sample of 672 students aged 13 to 19 from government and private schools / colleges was collected through Purposive Sampling. Three self reported instruments: Oxford Happiness Questionnaire (OHQ); Spiritual Well Being Scale (SWBS); and Coping Strategies Questionnaire (CSQ) were administered in group settings. The Oxford Happiness Questionnaire (OHQ; Argyle & Hills, 2002) consisted of 29 items was used to assess the Psychological Well Being of adolescents. The Spiritual Well Being Scale (SWBS; Paloutzian & Ellison, 1982) was administered to assess the two dimensions of Spiritual Well Being: Religious Well Being (RWB) and Existential Well Being (EBW). The Coping Strategies Questionnaire (CSQ; Kausar & Munir, 2004) comprising of 62 items with four scales: Active Practical Coping; Active Distractive Coping; Avoidance Focused Coping and Religious Focused Coping was used to assess the Coping Styles which are being used by the adolescents. The results show that Psychological Well Being has a positive relationship with Spiritual Well Being and Coping Styles: Active Practical, Active Distractive, Avoidance Focused and Religious. High Existential Well Being and high Active Practical, Distractive coping styles and low Avoidance Focused coping styles predicted Psychological Well Being of adolescents. In addition, gender differences also have it's significance in adolescents' Well Being and Coping styles. Thus, it can be concluded that Spirituality and Coping promote resilience and thus equip the person to deal with life's different challenges and stressors.

Changes in implicit attitudes following a message-framing intervention: A study regarding dental flossing

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Background: Meta-analyses of message-framing interventions suggest that behavioural changes may be mediated by changes in implicit attitudes. No evidence exists that investigated if message framing interventions change implicit attitudes; this was explored in the present study regarding dental flossing. **Methods:** Undergraduate students provided baseline data on flossing behaviour, intentions and completed an Implicit Attitude Test. One week later, they were randomly exposed to either a gain-framed (n=87) or a loss-framed (n=67) message. Immediately after exposure, their implicit attitudes towards flossing were assessed again. **Findings:** There was a significant effect of condition. Follow-up analyses showed that those in the loss-frame condition had a significantly more negative association with flossing at follow-up than at baseline, $t(53)=2.27$, $p = .027$. No changes in implicit attitudes were found in the gain-frame condition. **Discussion:** There were

significant decreases in implicit attitudes towards flossing in those exposed to the loss-framed message, countering theoretical expectations.

Moderating effect of positive parental attitudes on IQ and academic stress link

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Background: Gifted adolescents often appear in the literature as more disposed to stress (Baker et al. 1998; Parisot et al. 2007). However, others authors found that gifted have similar or lower stress level than students with standard IQ (Shaunessy et al., 2010). This lack of consensus may be due to the moderating effect of parental attitudes about schooling. **Method:** 87 gifted high-school students and 216 standard IQ students completed questionnaires about academic stress and parental attitudes. We first tested the means difference of stress between the two groups and then performed linear regressions to test the moderating effect of parental attitudes. **Results:** Gifted students had lower mean of academic stress, $t(300) = 8.24$, $p < .001$, $d = 1.11$. The effect of IQ was no more significant in the model with the moderator, $\beta = -.13$, $p = .54$. The model was significant, $R^2 = .203$, $p < .001$ but (a) it was not the best model $\Delta R^2 = .005$, $p = .17$ and (b) the interaction was not significant, $\beta = -.36$, $p = .17$. So perception of positive parental attitudes had a partial moderating effect. **Discussion:** these results suggest that gifted adolescents probably adapt better to stressful situations that future research should confirm.

Effect of automatic mental mode on occupational stress

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Background: The Mental Mode Management model (Fradin et al., 2008) recognizes two generic brain modes to apprehend a situation. The “automatic” mode directs the individual to the use of patterns of action learned, and the “adaptive” mode generates new strategies in line with the current situation (Bilalic et al., 2008; Dijkstehuis et al., 2006; Fernandez-Duque et al. 2001; Houdé et al., 2000). This model assumes that stress appears when the individual use an automatic mode for a situation that requires a new strategy. Thus, we assume that people using mental mode automatic have higher occupational stress level than those using adaptive mental mode. **Method:** 222 employed people (physicians, teachers, others) were requested to complete the Job Stress Survey and Mental Mode Questionnaire. Three groups were constituted from the use of mental modes: automatic, variant from automatic to adaptive, adaptive. Then we performed Anova with Bonferroni post-hoc test by controlling the occupational groups. **Results:** Job stress mean scores were higher for people who used automatic mental mode comparatively to those who used adaptive mental mode, $F(3,219) = 3.25$, $p < .05$, $\eta^2 = .05$. Otherwise physicians who used adaptive mental mode had the lowest mean of

occupational stress. **Discussion:** These results show that the training programs in companies should consider the use of mental modes and teach people how to switch to a adaptive mental mode.

The influence of body-related-beliefs on sportsmen's body image and muscle dysmorphia: The role of body malleability

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Since muscle dysmorphia has been described as a special form of body dissatisfaction, specific of males, associated with intense physical activity. If some studies explored its relations with other variables, its psychological predictors still remain to be determined. According to the findings which showed that specific body-related-beliefs (i.e. considering the body as malleable) are related to high levels of involvement in body activities, this research aims at testing the relations between body image, body malleability and muscle dysmorphia. In this study, these three factors were assessed using self-evaluation questionnaires among a 137 male sportsmen sample. When predicting muscle dysmorphia, regression analysis indicates a significant negative interaction between body image and body malleability: a negative body perception predicts muscle dysmorphia only when sportsmen have high scores in body malleability beliefs. This result is discussed in order to improve the understanding of muscle dysmorphia and its prevention.

The experience of illness and the perception of stigma

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Background: The perspectives of people with Memory Loss and Epilepsy were sought to understand their experiences of interacting with other people. **Methods:** An explorative qualitative design was used. Seventeen semi-structured interviews were carried out (10 people with Memory Loss and 7 people with Epilepsy). Thematic analysis was use to analyse the data. **Findings:** Themes included 'illness beliefs', 'coping', 'participation in life', and 'interactions with others' (the 'behaviour of others,' the 'views of others,' 'disclosing to others,' and 'emotions'). Both groups perceived negative social interactions with others, however, the Epilepsy group reported more of the impact on their 'participation in life'. Participants with Memory Loss viewed their memory problems as part of normal ageing. **Discussion:** An awareness of the interpersonal stigma perceived by people with illnesses may encourage actions which help to counter the negative beliefs of others and which encourages participation in activities, and so improve quality of life.

Gender differences in body perception in a German-speaking online-weight-loss-program

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Background: A positive perception and acceptance of one's body is a good prerequisite for losing weight successfully. Therefore, the present study examines gender differences in body perception of participants in an online-based weight-loss-program. **Methods:** Using a cross-sectional design, 471 participants (75.8% women; age 45.9±12.4 years; body-mass-index 28.5±5.2 kg/m²) were asked to rate their body perception in an online-survey. Gender differences were estimated by independent sample t-tests. **Findings:** On the scale of negative body evaluation, with higher scores indicating greater refusal to accept their appearance, women assessed their body perception more negatively (w: 16.3, m: 14.4, p<.000). On the scale of vital body dynamics which expresses the self-perceived fitness and health, women perceive their body more positively than men (w: 20.4, m: 19.2, p<.004). **Discussion:** Women's body perception is highly ambivalent. Consequently, it is imperative to strengthen women's subjective body awareness for successful weight loss.

'Endure the abuse': Coping strategies of women in abusive relationship

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The research study aimed to (1) identify the types of abuse experienced by a group of women informants, (2) describe the problem-solving strategies they employed to cope with the stress brought about by the abuse and the abuser, and (3) examine their efforts to seek support from others to improve their physical and emotional well-being. Purposive sampling was used to select the key informants for this interpretive-qualitative study. Semi-structured interview was the main instrument employed to solicit stories from the women informants referred to the researcher by the Social Welfare Office. Taped interviews were transcribed and analyzed. The data revealed that (1) informants experienced different forms of abuse, (2) despite the frequency and severity of abuse, they minimized, denied, or excused the abuse and the abuser as a strategy to cope with the stressful experience, and (3) some neither expect nor seek help from others and were resigned to their 'fate'.

The personal growth on an example of the psychologist professionally important qualities transformation

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The purpose of research is revealing basic professionally important qualities (PIQ) of the psychologist to show stages of them, to characterize specific structure of each period. We use the theoretic-methodological analysis of the scientific literature; the content-analysis of the lists, available in the literature, PIQ; testing, interrogation; the mathematic-statistical and qualitative analysis. At first the sociability and authenticity is shown, then aspiration to self-understanding and self-knowledge, and empathy become, and in the end - creativity, at increase all previous. To strong-willed purposeful qualities of the beginning students, adds wisdom of understanding of a human nature then, at the young experts - empathy, at the skilled psychologists - creative activity. In all groups productive orientation of the person is increased, aspiration to unity is observed; the students' harmonious intelligent sociability develops in productive at the psychologists-professionals.

These qualities direct the man to self-perfection and personal integration and characterize the complete person.

Social support in adolescents with type 1 diabetes: A systematic review of social support intervention studies

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Type 1 diabetes (T1D) is a chronic condition which typically requires adjustments in the social life of the adolescent and their family. This review examines the literature on intervention trials aiming to improve social support in adolescents with T1D. Screening of abstracts of intervention trials with robust designs, testing effects of social support interventions on health outcomes in adolescents with T1D resulted in eight trials for review. Operationalization of social support, interventions and assessment of outcomes varied across trials. Samples were recruited from the USA or Europe and ranged in size from 21 to 127 individuals. Gender and age differences, as well as the right amount and type of support, appear to be important. It is concluded that social support interventions affect quality of life and relationships, but not necessarily glycaemic control (a key clinical outcome parameter). Research needs to be expanded into non-Western regions, adopting a translational approach based on a public health perspective.

The informal social support for autonomy and dependence in pain inventory (ISSAI_PAIN): Development and validation of a new measure

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The effects of perceived social support (PSS) on pain-related functional autonomy are inconsistent, suggesting the moderating role of an often neglected function of PSS – the promotion of autonomy(PA)/dependence(PD). Therefore, we aimed to develop a measure of Informal Social Support for Autonomy and Dependence in pain, in family settings. 307 adults (67.7% women) completed the ISSADI_PAIN along with other measures of PSS, pain severity/interference and pain coping. Confirmatory factor analyses showed a good fit of a factor structure composed by two second-order correlated factors (PA and PD), measured by two first-order factors (emotional vs. instrumental support), respectively; this was the best of five alternative models. Also, the ISSAI_PAIN discriminates the PSS of individuals with different pain experiences ($p < .01$) and predicts the use of pain coping strategies among people reporting acute pain. The ISSAI_PAIN is an innovative and sound tool, allowing the assessment of the family influence on pain-related functional autonomy.

Cognitive processing strategies, posttraumatic stress symptoms and growth in train drivers exposed to work accidents

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Person-under-train(PUT) incidents represent a challenge for train drivers. Understanding what mechanisms facilitate better adjustment after these traumatic events is highly important. The objective of this study was to investigate the interrelations between specific strategies for cognitive processing of trauma and retrospective reports of posttraumatic stress symptoms (PTSD) and posttraumatic growth (PTG) in train drivers. Further, we investigated which of these cognitive strategies mediate the relationship between PTSD and PTG. A sample of train drivers who reported multiple PUT incidents (N = 129) completed The Impact of Event Scale-Revised, The Posttraumatic Growth Inventory and The Cognitive Processing of Trauma Scale. Besides PTSD symptoms and PTG reports being negatively associated, our results show that cognitive strategies like acceptance and positive reinterpretation, partially mediate this relationship. Discussion focuses on mechanisms linking PTSD and PTG reports after PUT incidents and highlights the need to stimulate certain cognitive strategies that engender adjustment and growth.

The moderating impact of global self-esteem on self-affirmation effects

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The present study explored whether global self-esteem would moderate the effectiveness of a self-affirmation manipulation at increasing openness to personally relevant health-risk information. Participants (N=348) completed either a self-affirmation manipulation or a control task, prior to reading information detailing the health-related consequences of taking insufficient exercise. Results revealed that global self-esteem did moderate the impact of self-affirmation manipulation on outcomes. Participants with low global self-esteem were most influenced by the self-affirmation manipulation, insofar as self-affirmation resulted in more positive attitudes and intentions towards increasing the amount of exercise taken, together with lower levels of derogation of the health-risk information, for these individuals. By contrast there was no effect of the self-affirmation manipulation for participants with high global self-esteem. Findings suggest that self-affirmation manipulations might be of particular benefit for those with low global self-esteem in terms of promoting openness towards health-risk information. This is promising from a health-promotion perspective, as individuals with low global self-esteem often represent those most in need of intervention.

Psychometric properties of four single items to measure work stress in Ecological Momentary Assessment

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Background: Easy measures are needed in Ecological Momentary Assessment (EMA). In this work we evaluate the reliability and validity of four single-items measures of Control, Demands, Effort and Reward, to use them in a work-stress EMA design. **Methods:** Seventy-four public-service workers answered questionnaires (Karasek' JCQ and Siegrist' ERI) and single measures, in a 10 points scale. The POMS was included as the external criteria. **Findings:** Correlations between single and correspondent questionnaire scores were moderate for control (.405), demand (.386) and effort (.507). The most conservative reliability estimations, using the correction for attenua-

tion method, ranged between 0.193 and 0.452. The reliability for reward item score could not be estimated. Correlations with POMS were as expected, and systematically better for single items measures. **Discussion:** Although Reward measure needs further analysis to be used in an EMA design, the other three single item measures (Control, Demands and Effort) have shown adequate psychometric properties.

Perceived ability to express emotions openly as a child and its relationship with emotional eating, attachment style and BMI in Adulthood

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Perceived ability to express emotions openly as a child and its relationship with emotional eating, attachment style and BMI in Adulthood. Imagine a young girl who is in need of comfort from her mother but when she seeks it, her mother admonishes the child. The young girl retreats sobbing to her room where she calms herself by rocking with her teddy and sucking on some chocolate till it melts in her mouth. Now all grown up as a busy solicitor, she reaches for her favourite ice-cream when upset or feeling unloved by her partner. Emotional eating has been found to be related to experiences of abuse and neglect. Emotional non-expression has been found to be related to emotional eating tendencies and in student populations emotional abuse during childhood has been related to disordered eating and also that obese students are more likely to regulate their emotions by eating compared to their normal weight counterparts. This study looked at the relationship between emotional expression as a child and its relationship to BMI and Emotional eating in 100 facebook users of a health promoting TV programme. Low perceived emotional expression in childhood was related to higher levels of anxious emotional eating in adulthood when current adult attachment style was controlled for. Insecure attachment style was related to all types of emotional eating.

Effects of aroma massage on quality of life and anxiety among Japanese: A randomized controlled trial

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Background: Purpose of this study is to examine the effects of aroma massage on the health related Quality of Life (QOL) and anxiety. **Methods:** Eighty-one men and women aged 21-74 were randomly divided into two groups of intervention and control after informed consent. For the intervention group, aroma massage interventions of 45 minutes were conducted once a week for two months. Both groups filled out the questionnaires before and after the interventions including health related QOL questionnaire (SF8) and State-Trait Anxiety Inventory (STAI). **Findings:** Mean physical summary score of SF8 after interventions increased in the intervention group (+2.99, $p=0.01$) while it did not in the control group. (p for difference=0.04). Mean score of STAI decreased in the intervention group (-3.86 $p=0.01$) while not in the control group. **Discussion:** Weekly aroma massage for two months may increase the physical health related QOL and decrease anxiety.

Impact of optimism and pessimism on distress among newly diagnosed prostate cancer patients

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Prostate cancer (PCA) can be a major life stressor and heightened levels of psychological distress are common. However, there is a wide variability in distress with some PCA patients reporting little distress. The main aim of the present study was to examine both protective and risk factors for distress after the diagnoses of PCA. Towards this goal the relationship between optimism, pessimism and distress was examined among 61 PCA patients. Baseline questionnaire that assessed optimism/pessimism and distress was administered around the time of diagnoses and distress was assessed again three months later. Results from multiple hierarchical regression models (controlling for baseline measures of distress) revealed that: 1) optimism was significantly related to lesser general- and decisional related distress and; 2) pessimism was significantly related to greater decisional related distress. These results indicate that optimism could be a protective factor while pessimism might be a risk factor for PCA patients.

Relationships between health-related quality of life, leisure-time physical activity, and aerobic fitness

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Objectives: To examine the associations between health-related quality of life (HRQoL), leisure-time physical activity (LTPA), and aerobic fitness in polycystic ovary syndrome patients (PCOS) and healthy controls (CON). **Methods:** Eleven PCOS and 11 CON participated. HRQoL was assessed by the RAND-36 and the PCOSQ questionnaires. LTPA was self-reported and aerobic fitness (VO₂max) was measured during incremental maximal cycling. **Findings:** PCOS (age 30 ±4, BMI 33±2) scored lower compared to CON (age 32±8, BMI 24±5) in physical (p=0.045) and mental (p=0.022) health summary scores, and in physical functioning (p=0.008), energy/vitality (p=0.014) and general health (p=0.019) domains of RAND-36. Weight and infertility domains of PCOSQ caused the most concern for PCOS. There were no associations between LTPA and RAND-36 summary scores. However, VO₂max was positively associated with both physical (rs=0.499, p=0.018) and mental (rs=0.435, p=0.043) health summary scores. **Discussion:** Physical activity programs which improve aerobic fitness could be effective in improving HRQoL.

Psychosocial variables associated to patient compliance in child developmental pathologies

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Therapeutic compliance of the physical therapy indications in children with psychomotor disability is one of the key points for the success of the treatment. **Objective:** Estimate the degree

of therapeutic adhesion in the physical therapy treatment of children with developmental deficiencies (0-6 years of age) and identify its predicting psychosocial variables. **Method:** Transversal study. **Sample:** 79 caregivers for children with psychomotor disability who perform physical therapy in the General Hospital of Alicante and CDIAT (APSA). **Variables:** Patient Compliance, social support, confidence in the professional, perceived autoefficacy, and anxiety. **Results:** The binary logistic regression model indicated that 82.7% reached the desired therapeutic adhesion value. In 86.7% of the cases the adhesion was prognosticated with the degree of confidence the parents possessed in the professionals, as well as the social support perceived. The other variables did not present any statistically significant differences. **Conclusions:** The importance of the sanitary professional as motivator of patient compliance.

Drinking behavior of problem drinkers group in high school students

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Objective: To elucidate drinking behavior of the problematic drinkers, who have high risk of health hazards from alcohol in the future. **Methods:** 1,611 high schools students were participated in questionnaires survey. 4 questions related to the situation of drinking alcohol and the ways to obtain alcohol were asked. From the results of this survey, the participants were divided three groups: Normal adolescents, Drinkers, and Problem drinkers by QF scale. **Results:** 4.6% of high school students were classified into the Problematic Drinkers group, while boys and girls were 4.6% and 0.6% respectively. As the situation of drinking alcohol, 66.7% of problematic drinkers answered they drink alcohol with their family and 56.1% answered with their friends. 56.0% of problem drinkers also answered the main way to obtain alcohol was supermarket and convenience store. **Discussion:** The results indicated the education as the secondary prevention program for the problem drinkers are needed.

Effects of poster size on stair climbing at work: Size matters and small is good

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Background: Increased stair climbing at work is a current public health target. This study tested the potential effects of the size of the poster used to encourage stair climbing in council buildings. **Methods:** Following a 3-week baseline, A2 posters and A3 posters encouraging stair climbing for heart health (3-weeks) and calorie control (3-weeks) were compared in four worksites with a fully counter balanced, crossover design. Automated counters measured stair climbing (130,091 observations). **Findings:** Only the smaller A3 poster was able to encourage stair climbing, with the larger A2 poster ineffective. In addition, analyses indicated that the heart health campaign was more effective than the one based on calorific expenditure. **Discussion:** While the increased visibility of larger stair climbing prompts produces greater effects in public access settings, for worksites smaller posters appear better. The larger poster in a familiar place of work may produce reactive effects in some employees.

A brief psychological intervention to improve adherence in type 2 diabetes

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Background: This study aimed at testing experimentally the effect of brief psychological interventions based on diabetes threat or mastery perceptions in terms of adherence, acceptance, and motivation. **Methods:** The design was experimental randomized-controlled. 80 type-2 diabetic patients, recruited in the hospital diabetes department, were randomly assigned to four induction groups using autobiographical recall (threat vs. mastery linked to diabetic events or positive vs. negative emotion linked to non-diabetic events). Then, they completed validated questionnaires assessing diabetes perceptions, acceptance, treatment motivation, and adherence. **Findings:** The “threat group” reported less adherence ($p = 0.015$) and perceived diabetes as less threatening ($p = 0.05$) than the “mastery group”. Compared to the “threat group”, men and younger participants in the “mastery group” reported respectively more acceptance ($p = 0.041$), and higher motivation ($p = 0.01$). **Discussion:** Health professionals should consider threat and mastery perceptions on diabetes during consultations to improve motivation, acceptance and adherence.

Perceived causes of vaginal discharge in women

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The aim of the present study was to explore the perceived causes of those women who have the complaint of Vaginal Discharge. The researcher explored the causes and reasons, which lead towards Vaginal Discharge according to the Pakistani women. The researcher conducted seven in-depth Semi-Structured Interviews. Only married women of 22 - 50 years of age were included in the study. The researcher transcribed the gathered information and used Ideographic Phenomenological Analysis in order elicits themes. The analysis showed that women considered many Psychological and Physical concomitants as the causes of Vaginal Discharge. It was also revealed that many environmental factors and type of food also played important role in causing Vaginal Discharge among women. The present study highlighted the need of counseling services at the primary care health settings.

Relationship between frequency and type of physical activity, neuroticism, and depression: Moderator effects of gender and age

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Background: Practicing a physical activity is a well-known device to prevent depression. This study aimed to identify what frequency and types of sports (field hockey vs gymnastic) could appear as a protection from depression while considering neuroticism. Age and gender were also examined as potential moderators of the relation between physical activity and depression. **Method:** Neuroticism (BFI) and depression (CES-D) were assessed in 88 subjects (18-44 years old; 37 men and 51 women). **Finding:** Gender and age have not been identified as potential

moderators. The level of depression was not significantly lower in field hockey (team ball sports) than in gymnastic (aesthetic sport). Frequency of physical activity was not associated to depression. High levels of physical activity frequency were negatively associated to neuroticism ($r=-0,15$; $p<0,05$) and high levels of neuroticism predicted high levels of depression. ($\beta= 0,563$; $R^2= 0,31$; $p<0,01$). **Discussion:** Further researches should study the relationship between frequency of physical activity, depression and neuroticism.

Adolescents and sexuality: Attitudes towards condom use

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Background: The consolidation of the concept of Sexual and Reproductive Health contributed to the need for **Discussions** on the importance of sex education in schools. **Objective:** To determine the influence of sociodemographic variables and context of sexuality in attitudes towards condom use. **Method:** Observational study with 1216 adolescents aged between 14-18 years, mean = 14.69 (SD = 0.836), 54.7% female, in 9th grade education. We used the scale of attitudes towards condom. **Results:** 25.3% of the adolescents are dating, 53.3% speak about sexuality with friends, 49.3% with their mother. 15.1% of boys and 10.5% of girls between 10 and 18 years had sex, mean = 13.83 years (SD = 1.508). Of these 19.0% did contraception, 62.8% used condom and 37.2% used pill. Only 0.2% did emergency contraception. 19.6% boys and 23.3% girls present inadequate attitudes towards condom use. 18.7% boys and 21.8% girls ($X^2 = 1.131$, $p = 0.568$) present very appropriate attitude. Of those who have very appropriate attitudes, 20.2% talk about sexuality with their mothers ($X^2 = 1.181$, $p = 0.913$). **Conclusion:** There are emerging concerns about the formation of adolescents in all dimensions of sexuality so that school staff should provide input to more responsible choices.

'This is who I am': Processes underlying resilience and wellbeing in adolescence

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There are a variety of individual (e.g., thinking styles) and environmental factors (e.g., social support) that influence adolescent resilience to stressful events and overall well-being; however, limited research has focused on the interactions between such variables. This study conceptualised and tested a model of adolescent resilience and well-being to determine factors which would assist in the management of stressful life events and predict adolescent wellbeing. In a cross-sectional research design, 200 adolescents aged between 13-16 years completed surveys, either hard-copy or an online version assessing a wide range of predictors of resilience. Although this study is ongoing, preliminary findings reveal multiple individual and environmental factors within the model are significant predictors of adolescent well-being. This study is limited by cross-sectional design; however, contributes to the adolescent well-being literature by providing an empirical evaluation of a theoretically derived model of resilience and well-being in adolescents that can inform future intervention developments.

Cardiac misconceptions and illness perceptions: Influence on recovery from myocardial infarction

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Background: Illness perceptions and cardiac misconceptions have been found to influence recovery from and management of heart disease. This study aimed to investigate the association of these variables with recovery outcomes, in a Portuguese sample of myocardial infarction (MI) patients. **Methods:** 38 first-MI patients were interviewed in hospital and four months after discharge. They answered a survey which included measures of illness perceptions, cardiac misconceptions, health-related quality of life (HRQoL), anxiety, depression and negative affect. **Findings:** At baseline, there were several significant correlations between illness perceptions and outcome measures. Four months later, cardiac misconceptions were significantly associated with several dimensions of HRQoL. **Discussion:** Cardiac misconceptions seem to be detrimental for HRQoL, not at the acute phase, but at later stages of recovery from an MI. Their role, as well as that of illness perceptions, should be considered when planning interventions aimed at promoting adequate health behaviours during recovery.

Stress management and personality: Translation and validation of psychological mindedness scale in an Italian sample

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Background: Psychological Mindedness (PM) consists in the capacity to tolerate psychological conflicts and stress intrapsychically rather than by regressive means in conflict resolutions and management such as somatization, generating psychosomatic illnesses. The Psychological Mindedness Scale (PMS) is a self-administered questionnaire of 45 items built to assess PM. Aim of this study is the translation of the PMS and validation in an Italian Sample. **Method:** The PMS was translated into Italian with the double-blind procedure; then it was administered with the TAS-20 in a sample of 560 subjects of general population. **Results:** The Factorial Analysis confirmed the original structure of the scale, formed by 5 factors. **Discussion:** Factorial Analysis and Convergent Validity confirmed the previous validation of PMS. The introduction of this scale in the Italian context could improve the comprehension and the assessment of personality and stress management in the the field of Health Psychology.

Mentalization and alexythimia: A new proposal for understanding psychosomatic illnesses

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Background: The failure in the developing of Mentalization (Fonagy, 1991) would be responsible for difficulties in emotional and physiological arousal regulation, generating psychosomatic

symptoms because of the inability in feeling and representing the somatic component of emotion. The aim of this study is to show that Alexithymia partially overlaps but it's different from difficulties in mentalize bodily sensations. **Method:** The questionnaire, consisting of Psychological Mindedness Scale and TAS-20, was administered in a sample of 507 Italian people of general population. As suggested by Fonagy, Psychological Mindedness is a construct near the concept of Mentalization. **Results:** In the present study, constructs of Mentalization and Alexithymia have shown significant correlations but not a complete overlapping. **Discussion:** Although linked, Mentalization and Alexythimia represent in this study two different descriptive levels of psychosomatic phenomena. This perspective could improve the comprehension and management of psychosomatic patients in the context of Health Psychology.

Religion, spirituality and culture: Validation of the Italian and Brazilian RECS scale

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Background: The growing emphasis on spirituality and religious behavior is important in the social sciences and psychological influence behavior, strategies and choices in health in different cultural contexts. The objective of this research is the creation of a scale that highlights the components of consciousness, religiosity and spirituality of religious behavior. The aim is also to explore the different cultural and psychological background of the spiritual and religious. **Methods:** Data were collected in Italy and Brazil in a sample of 2079 subjects. **Findings:** The analysis of the questionnaire showed the presence of a structure with three factors. It showed scores significantly different in the different subscales with important cultural differences. **Discussion:** The spiritual dimension in the Italian sample is closer to a search for self-awareness, and sense of meaning in their lives; the Brazilian population, however, is characterized by a strong religious syncretism, with a spirituality closer to religion and institutionalized forms of sacred.

Spirituality and quality of life: Relationship between religious behavior and well being

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Background: A lot of recent studies have emphasized the influence of the spiritual and religious behavior in relation to coping styles, well-being and quality of life. Aim of this study is to explore the relationship between spirituality, religion and the different components of religious behavior and its relationship with well-being and quality of life. **Methods:** The study involved 1240 Italian people. **Findings:** Inferential analysis showed positive correlations between religious behavior and quality of life. It is shown that an active practice of their faith is related to higher scores on measures of quality of life. **Discussion:** These results contribute to highlight how religious behavior, spirituality and awareness are promoters of higher levels of personal satisfaction, quality of life and well-being. The spiritual / religious dimension seems to be an important resource and strategy in the field of health, and is a positive factor with everyday problems or stressful situations.

The fall in the elderly: A stressful life event

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The fall in the elderly, a stressful life event and potentially traumatic, is a real public health issue. The study of the causes and psychosocial consequences leads us to think that the assessment and psychological support in terms of past and future experiences. With data collected from 12 patients hospitalized in geriatric medicine because of falls, we were able to obtain results related to past experiences and future projections. We evaluated the use of proactive coping strategies, negative affectivity, personality traits, perceived vigor and fear of falling. In addition to these psychometric data, we also identified demographic, biomedical and fall related information, to expand and refine our understanding of the elderly “faller”. This study shows that it is the fear of falling which is the focal point. This fear increases or creates negative affect, perceived loss of resources and results in a decrease of the adaptive capacity. We can also show the important and essential role of the psychological dimension in the assessment and support before and after the falls, in a multidisciplinary approach, in order to improve the quality of life and psychological subjective well-being avoiding or lower bounding the post-fall syndrome, establishing an appropriate support.

Prevalence, intensity, and predictors of the supportive care needs of women diagnosed with breast cancer

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Background: This review describes and analyzes the prevalence and predictors of the unmet supportive care needs of breast cancer (BC) patients and survivors, and suggests paths for further research and clinical implications. **Method:** Databases were searched for quantitative studies using validated needs assessment instruments, focusing uniquely on women diagnosed with BC. **Findings:** Out of 761 hits, 24 studies answered to all eligibility criteria. Twenty were cross-sectional; four were longitudinal. Most included patients at different phases of BC, from diagnosis into survivorship, with most under treatment. Concerns clustered around psychological and information domains, the top need: “fear of the cancer returning.” Advanced stage, greater symptom burden, shorter time since diagnosis, higher distress, younger age, predicted greater need. Asian women reported greater information needs and lower psychological needs compared to Western women. **Discussion:** Longitudinal studies employing standardized scoring would allow for a dynamic understanding of needs and the identification of those at risk for particular needs.

“When I eat healthily it is easier for me to be physically active”: The role of transfer and compensatory health cognitions in health behavior change

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Background: The present study sought to apply the motivation-volition-process model to the prediction of physical activity intentions and behavior and to test whether cross-behavior

cognitions (i.e., transfer and compensatory health cognitions) explain additional variance in behavior change. **Methods:** In a prospective online trial, behavior, self-efficacy, intentions, planning, satisfaction, transfer and compensatory health cognitions were assessed at baseline (N=132) and one-week follow-up (n=95). Regressions were performed to predict a) intentions and b) behavior. Sex, age, intervention group, and baseline behavior served as covariates. **Findings:** The variables explained 39% of the variance in intentions, with self-efficacy, satisfaction, and compensatory cognitions making significant contributions, and 20% of the variance in physical activity, with intentions, baseline behavior, intervention group, and transfer cognitions making significant contributions. **Discussion:** The results suggest that compensatory health cognitions play a role in the motivational phase of health behavior change, whereas transfer cognitions are more strongly associated with actual behavior change. This can guide multiple behavior interventions.

Associations between affective well-being and health behaviors during a stressful examination period

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Background: This longitudinal study investigated the association between daily affective well-being, physical activity, eating behavior and sleep quality during a stressful final examination period. **Methods:** On 32 consecutive days during their final exams, 77 first-year university students completed daily online questionnaires. Each day participants reported their affective well-being, physical activity, snacking behavior and sleep quality over the last 24 hours. Multilevel regression analyses using within-person centering were conducted. **Findings:** Multilevel regression analyses with health behaviors as predictors showed that participants reported higher affective well-being than their personal mean level on days with increased physical activity and higher sleep quality. Snacking behavior was not related to affective well-being. **Discussion:** These findings emphasize the importance of longitudinal studies in a natural context and suggest, that changing ones health behavior might impact ones affective well-being - also during a very stressful examination period.

Parents coping with their children's autism spectrum disorder: Burden, quality of life, resilience

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Background: The goals of this study were 1) to evaluate the parent's burden, 2) to investigate the correlations between the burden, the perceived quality of life and the resilience, 3) to determine the impact of the technical and emotional supports. **Methods:** The study was carried out among 224 subjects. The data have been collected from a questionnaire released on the Internet. **Findings:** A feeling of burden from moderate to strong has been observed for half of the subjects. This high level of burden has a negative effect on the quality of life and the adaptability to the handicap. The multiplication of different technical supports entails an increase of the perception of the handicap as a burden. **Discussion:** These results suggest the need for a better support, global and adapted to the handicap and for services regrouping the different specialists.

Positive relationships between spirituality and psychological wellbeing: Comparisons between older and younger adults

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Increasing evidence suggests some form of religiosity or spirituality may impact upon psychological health and wellbeing, although there has been little attention to how these relationships may change across the lifespan. This study examined changes in predictive relationships between aspects of religious experience (DSES; Underwood, 2006) or a connectedness spirituality (MS; Hood, 1975) on the one hand, and a measure of psychological wellbeing (WHOQol-BREF-D2) on the other. In a cross-sectional survey design, 298 Australian participants aged 18-77 completed surveys. The study is ongoing, however preliminary results indicate the strength of predictive relationships between both DSES and MS with WHOQol-BREF-D2 increase with age, and mystical elements of spirituality may be more important predictors of psychological health in older than younger individuals. The study is limited by cross-sectional design and lack of control for demographic variables, but provides an interesting insight into potential age-related changes in the impact of religiosity/spirituality on health.

Relationship between the illness perception, coping style, and health behaviour in diabetes mellitus patients

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Background: The purpose - determine if there is a correlation between the health behaviour (HB) of diabetes mellitus patients (DMP) and 1) illness perception (IP), 2) different coping styles. 3) IP and coping styles. **Methods:** 100 female type 2 DMP aged 50-80 and diagnosed >1 year ago were surveyed using the Illness Perception Questionnaire (Weinman, 1996), questionnaires to define the coping style and HB (Freimane, 2012). **Findings:** A significant correlation between the HB and IP ($r = 0.241$; $p < 0.02$); problem / emotions / denial&repression-oriented coping styles, $r = 0.418$; $p < 0.01$ / $r = 0.327$; $p < 0.01$ / $r = -0.262$; $p < 0.01$ (negative correlation), respectively, was found; as well as negative correlation between the IP and denial&repression-oriented coping style ($r = -0.228$; $p < 0.05$). **Discussion:** The results can be used, providing recommendations to include trainings in problem and emotions-oriented coping styles to the DMP care in order to facilitate more adherent HB.

The influence of a biography-based intervention on frailty in older adults

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Background: Frailty describes the functional decline of older adults. Psychological changes are considered to influence the drift from fit to frail. Reflecting about the course of life in an autobiographical intervention is assumed to affect frailty status in older adults. This study investigates

gender differences in frailty and the effect of autobiographical intervention on frailty in older adults. **Methods:** The intervention contains the modalities biographical writing, biographical group talk and control group. Frailty was measured pre and post intervention with the Tilburg Frailty Indicator (TFI). Participants (N=186) are German older adults (M(SD)=75.6(5.6)). Repeated-measures ANOVA were calculated. **Findings:** Women report more frailty symptoms than men before and after intervention. Memory performance significantly improved due to the intervention. General frailty status was stable pre and post intervention. **Discussion:** Biography-based approaches can effectively prevent cognitive impairment and a drift from fit to frail.

The effects of a biography-based intervention on quality of life in late life

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Background: Autobiographical approaches to reflect the course of life propose a positive outcome for older adults, but can also re-activate negative feelings. The aim of the study is to investigate the effect of a narrative autobiographical intervention on quality of life (QoL) and depression in older adults. **Methods:** Quality of life (SF-12) and depression (PHQ-9) were assessed pre and post the three intervention conditions biographical writing, biographical group talk, diary writing in German older adults (N=186; age 64-92). Repeated-measures ANOVA were calculated. **Findings:** Results show that the physical and psychological components of QoL were stable and did not significantly improve or decline. Levels of depression decreased in the diary writing condition. **Discussion:** Results indicate that biographical approaches don't have a negative impact on health-related QoL. Diary writing as a preventive strategy to decrease depressive symptoms can also indirectly affect long-term QoL in older adults which has to be further investigated.

Intra/interpersonal factors of binge drinking, smoking tobacco cigarettes and problematic internet use among Slovak university students

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Background: This study aimed to explore the associations between personality factors, religion, general health, depressive symptom and risk behaviours (RBs) among students. **Methods:** 817 students (74.5% females, 19.6 mean age) completed items concerning religion (importance, attendance), their health (description, monitoring), inclination towards depression (worrying about health), personality (Plasticity, Stability) and a cumulative index of RBs (drinking, smoking, problematic internet use). Females and males were dichotomized according to their level of RBs for the purpose of binary logistic regression. Two models containing all predictors were statistically significant, explaining between 9-13% for women and 19-33% for men of the total variance. **Findings:** The models revealed that for females and males a higher level of Plasticity (Extraversion, Openness/Intellect) was associated with RBs. For females, a higher level of depressive inclination and for males, importance of religion and general health, were associated with RBs. **Discussion:** Implementation of this information might be important for effective targeting of prevention programs.

Personality and social resources in case of serious somatic disease

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Background: Examined the inter-relationships between optimism, (treated as a personality variable) social support, which was understood as a social resources and quality of life in hemodialysis patients. **Methods:** One group consists of 68 hemodialysis patients took part in the study The data was collected using the following tools: Scheier, M., F., Carver, C., S., Bridges, M., W. Life Orientation Test-Revised (LOT-R), Luszczynska, A., Kowalska, M., Schwarzer, R., Schulz, U. Berlin Social Support Scales (BSSS) and Ware, J., E. 36-Item Short Form Health Survey (SF-36). Correlation methods have been used to find relationships between the variables. **Findings:** Using nonparametric tests it was found that there were some significant correlations between optimism and quality of life and some aspects of social support, while there was no association between optimism and social support. **Discussion:** Psychosocial aspects should be taken into consideration in treatment and care of hemodialysis patients to maintain a good quality of their life.

Examining the feasibility of implementing a weight loss website for Royal Navy (RN) personnel

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To counteract rising prevalence rates of overweight and obesity in the Royal Navy (RN), two complementary studies were conducted to explore RN personnel's views and usage of a behavioural weight loss website. Seventeen participants took part in a think-aloud and follow-up telephone interview. Transcripts were analyzed using an inductive thematic approach. Thirty participants (n = 15 per group) took part in a pilot case-control study. Body composition measurements were collected at baseline and 12 weeks later. Findings suggest that a lack of intrinsic motivation to make dietary changes and perceived environmental barriers may need to be addressed in order to encourage some individuals to undertake weight management. In addition, the focus of the website content on making dietary changes may not be perceived as relevant by personnel, since the RN culture emphasises exercise as the means for achieving physical fitness.

Postpartum posttraumatic stress disorder and depression

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Postpartum depression (PPD) and postpartum posttraumatic stress disorder (ppPTSD) are highly associated in women suffering from traumatic birth experience. Little is known about factors able to distinguish between those two forms of lack of psychological adaptation. The aim of this study is to compare quality of life and coping strategies in women suffering either from PPD or ppPTSD. Participants (n= 172) were recruited at two months postpartum and completed measures

of perinatal PTSD, postpartum Depression, quality of life and coping. 11 women (2,8%) had significant level on the ppPTSD measure and 38 women (9,7%) are probably depressed. Comorbidity was present on 2,3% of participants. In comparison, women with PPD use more denial and blame as coping strategies as women with ppPTSD. Further, the latter show better quality of life. Our findings highlight the differences between the two groups: PPD has more influence on quality of life than ppPTSD.

Socio-economic variation in healthcare access and quality of life in COPD: Exploring psychosocial factors

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Background: Psychosocial factors (e.g. illness perceptions, self-efficacy, social capital) play a significant role in the management and quality of life of chronic diseases. We examined associations between socio-economic status (SES), psychosocial factors, health care access (HCA) and quality of life (QoL) in COPD. **Methods:** Cross-sectional, interview-based survey in London of 176 COPD patients >40 years. Measures included SES, illness perceptions, healthcare access, quality of life, self-efficacy and social capital. **Findings:** The relationship between SES and HCA was not significantly mediated by psychosocial variables but the relationship between SES and QoL was. The effect of income level on dyspnea was mediated by identity, consequences, feelings of trust and safety and value of life (effect=0.26, SE=0.09, [95%CI]=0.0804-0.4503). Similar associations were found between SES and other QoL domains. **Discussion:** Psychosocial variables were significantly associated with HCA and QoL in COPD but their role as mediators in these relationships was of minor importance.

A dietary planning intervention increases fruit consumption in Iranian women

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The study examined whether a dietary planning intervention would help increase fruit consumption among Iranian women focusing on self-regulatory mechanisms in behavior change. We conducted a randomized controlled trial to compare a planning intervention with a control condition in 165 Iranian women (aged 17–48 years). Dependent variable was fruit intake, and dietary planning served as the mediator. After baseline assessment (T1) the intervention group received a leaflet on fruit consumption with a planning sheet. Changes were assessed at 3-weeks (T2) and at 3-months follow-ups (T3). Findings showed that the dietary planning intervention led to an increase in fruit intake. Age moderated this mediation. Changes in dietary planning mediated between intervention and fruit consumption in middle aged women. Dietary planning seems to play a role in the mechanism that facilitates fruit intake among Iranian women. This mediation by planning was found in middle aged women (30–48 years old), but not in young adult women (17–29 years old).

Self-rated health mediates the association between functional status and health-related quality of life in Parkinson's Disease

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Background: The objective was to explore whether self-rated health (SRH) acts as a mediator between functional status (UPDRS) and health-related quality of life (HRQoL) in Parkinson's disease. **Methods:** Functional status was measured with the Unified Parkinson's Disease Rating Scale (UPDRS), SRH with the first item of the SF-36 and HRQoL with the Parkinson's Disease Questionnaire-39 (PDQ-39). Multiple linear regression analyses and the Sobel-test were employed. **Results:** SRH seems to have a mediating effect on the association between UPDRS and PDQ-39. The Sobel-test ($z=2.42$; $p<0.01$) confirmed an indirect effect of UPDRS via SRH on PDQ-39. The indirect path (via the mediator) was ($B=5.70$; $p<0.001$) with functional status whereas the direct path without SRH was ($B=0.58$; $p<0.001$) and the direct path with SRH was ($B=0.53$; $p<0.001$). **Conclusions:** SRH mediates the deterioration of UPDRS on PDQ-39 in PD. Supportive psychosocial programmes leading to restore SRH may enhance quality of life regardless of disability.

"Everybody is in the same boat": Social support as a form of coping during chemotherapy

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Background: The current study examined the role of social support as a form of coping with chemotherapy for breast cancer. **Methods:** Twenty women with breast cancer took part in semi-structured interviews examining social support during chemotherapy. Qualitative thematic analyses were conducted and two main themes emerged; social support as a strategy to minimise distress, and as a form of information provision. **Findings:** Women sought emotional and instrumental social support from family and friends to reduce the psychosocial consequences of treatment. In contrast, women sought support from other patients as a way to obtain vicarious experience of how to cope with side effects (Bandura, 1977). Learning how other women coped led to better coping through peer modelling, and was considered more useful than information provided by healthcare staff. **Discussion:** The development of interventions that utilize vicarious experience may reduce distress and increase coping efficacy in women undergoing chemotherapy.

Alcohol expectancies in adult children of alcoholics

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Children of alcohol dependent parents are particularly vulnerable to the development of alcoholism in their adulthood, due to a combination of genetic, psychological and socio-environmental factors. Alcohol expectancies, the anticipatory cognitive associations with drinking, are believed

to play a causal role in the mediation and moderation of drinking behaviours. We explored alcohol expectancies in 49 non-alcohol abusing adult children of alcoholics (ACOAs) and 49 controls (CONs) using The Positive and Negative Alcohol Metacognitions Scales (Spada and Wells, 2006). There was no significant difference between groups for positive alcohol expectancies, but a significant difference for negative alcohol expectancies (.008**). Eddie et al (2013) showed in an alcohol misusing patient sample that negative, but not positive, alcohol expectancies were related to greater cue reactivity to alcohol related stimuli. Our sample appears to show negative expectancies similar to the alcohol misusing group. This has implications for the development of interventions for problem drinkers.

Drop-out risk factors in health clinical psychology services

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Background. To improve and assess the effectiveness of health clinical psychology interventions, it is critical to identify variables associated with an increased probability of leaving care (drop-out). **Methods.** In a sample of 651 oncological patients, attended the Health Clinical Psychology Unit in San Raffaele Hospital in Milan, were evaluated: drop-out rate; sociodemographic, medical and psychological factors (quality of life, anxiety, depression, stress level and coping styles). **Findings.** The results show that the rate of drop-out is 30%. Statistical analyses showed that male patients, with a highest level of physical pain and distress, facing their disease adopting a “fighting” or “helpless” coping style were significantly ($p < .05$) more likely to drop out. Moreover, drop-out rate is higher in counselling vs. psychotherapy. **Discussion.** Identifying drop-out related factors represent a first step in building predictive models useful in clinical practise to develop more effective clinical models of intervention.

Virtual reality in the prevention of risk factors in eating disorders related to body image

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Background: The internalization of the thinness model, and its relationship with the increase in an altered perception of body image (over/sub-estimation, and dissatisfaction) are considered as early symptoms in eating disorders. The purpose is to evaluate the effectiveness of a Virtual Reality Program (VRP) which aims to eliminate risk factors in eating disorders associated to body image. **Participants:** From the total non random sample of $N = 71$ adolescent girls, 36 were selected ($M = 13.43$ years old; $SD = 1.13$) who had chosen the thinnest silhouettes (1,2) as ideal figure. **Results:** The findings show, significant differences between pre/post results: e.g. the significant decrease in body dissatisfaction: $t(27) = 4.67$, $p = .0001$ ($M_{pre} = 2.43$, $SD = 2.21$ vs $M_{post} = .30$, $SD = 1.64$). **Discussion:** The findings confirm the effectiveness of the VRP which might be used to prevent the onset of a negative body image.

Behavioural changes and caregiving burden in Down Syndrome

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The aim of this study is to determine the impact of altered behaviour of adults with Down syndrome (DS) on their caregivers. The sample of 16 caregivers (Mage=64.27 years; SD=9.12) of individuals with DS completed the Frontal Behaviour Inventory and the Zarit Burden Interview at the initial assessment (T1) and at follow-up 12 months later (T2). The results indicate that the more severe the behavioural changes the higher the level of caregivers' burden in T1 ($r=.51$, $p<.05$) and T2 ($r=.55$, $p<.05$). This is significantly related to inhibition behaviours, such as stubbornness, apathy, lack of spontaneity, detachment, personal neglect and logopenia. Aggressive behaviours and other disinhibited attitudes, such as irritability and hyperorality also increased burden levels. We observed that global burden was not very high; still, the inhibition behaviours had a stronger impact on caregivers. Thus, intervention focused on improving caregivers' wellbeing and coping strategies are needed.

GPs and patients with chronic pain: Is the breakdown of doctor-patient relationship bound to happen?

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Encounters involving patients suffering from chronic pain without objective findings (CPWOF) are challenging for General practitioners (GPs) and patients who have different views on the origin of pain and divergent expectations. Misunderstanding can arise that weakens the doctor-patient relationship and GP's job satisfaction. The study aims at highlighting GPs' abilities that could preserve the doctor-patient relationship and GPs' job satisfaction. 15 semi-structured interviews were conducted with GPs to explore their reported practices and perceptions about these specific encounters. Qualitative data were analysed with computer-assisted thematic analysis (NVivo-8). Results show that the use by GPs of various sources of knowledge to give explanations to patients and GPs' participation to small-groups of reflection to talk about their patients and feelings can improve their understanding of the complexity of patients' situations, and thus doctor-patient relationship and job satisfaction. The findings open ways to increase GPs' job satisfaction by improving communication and reflective skills.

Perceptions and attitudes about firearms in college students

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Background: This study explores perceptions about firearms in college students and identifies factors associated with their attitudes towards these weapons. **Methods:** This is a cross-sectional study; a questionnaire was administered to a random sample of students under 25 years old from

University of Guadalajara, Mexico (n=475); logistic regression model was used to identify factors associated to attitudes toward firearms. **Findings:** 40% of the students personally knew a victim of firearms, 38% consider necessary to have a firearm at home for safety and 36% said they would like to have their own firearm. To know firearms victims, to prefer violent videogames and having suffered cyberbullying are -among others- factors significantly associated to want to have a gun. **Discussion:** Firearms mortality is a public health problem for youth in Mexico; in a context where many young people perceive as necessary to have a firearm, strategies to prevent their use are essential.

Experiences in the war zone, shared narratives and changing identities: Systematic review of qualitative research

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Background: Qualitative methods are rarely used to understand how ex-military combat personnel make sense of their experiences. A search of peer-reviewed articles revealed rich narrative experiences of personnel exposed to mental or physical challenges related to post-deployment and later civilian life. **Methods:** Articles were assessed for quality where rigorous standards for data collection and research processes were clearly explained. Synthesis of study findings was achieved through: 1) identification of themes explored 2) descriptions of themes, and 3) tabulation of distinct study components. **Review findings:** Qualitative methods of inquiry posed significant challenges for researchers. Protocols for analysis of outcomes and synthesis of research findings are varied and complex. In-depth multiple readings allowed for a systematic review of common themes within each study. **Discussion:** Making sense of combat experiences will help to provide valuable information for healthcare practitioners and the therapeutic community on how to develop effective interventions to improve veterans' wellbeing.

“What do you think when you think about health”: Understanding health in the modern world

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Social scientists point out certain characteristics of contemporary culture, influencing the way people think, experience and behave in everyday life. The characteristics taken into consideration as a base for investigation of the meaning of health were: individualization, rationalization, commercialization and hedonisation. They create a background for developing so-called “right thumb mentality”. The aim of the study was to find out how this mentality influences the understanding of health and its functions. The paper shows results of a discourse analysis of contents of 21 focus group interviews. The participants (90 adolescents, 57 adults) had to finish the phrase “Health is like...” and answer a question “Why people want to be healthy?”. We identified dominant categories of meaning and functions of health and compared the frequencies of these categories in groups of adolescents and adults. In the discussion we referred to previous studies on similar topics.

Age dependent changes in self reported health, quality of life and health related behaviour in Lithuania

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Background: to improve achievement of goals for health psychology and health care systems it is important to understand age dependent changes in health and behaviour. This study focuses on revealing changes of self rated health (SRH), quality of life (QoL) and harmful behaviour during lifetime in Lithuanian population. **Methods:** data for this study was pooled from large scale projects implemented with Kaunas region municipality, including nearly 8000 participants. Items of WHOQoL-100, standardized items for SRH, smoking and alcohol consumption were used. **Findings:** analysis shows a linear lowering of SRH and 5 domains of WHOQoL-100 between 15 to 80 years of age, deterioration of SRH and QoL is more expressed in females. Prevalence of smoking and alcohol use increases until 35-40 years, and is more expressed in males. **Discussion:** age related changes of subjective health, quality of life and health behaviour are important for timing and outcomes of psychological interventions.

Oncologists' recognition of depression in advanced cancer patients: What symptoms do they detect and how?

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Background: Research suggests that oncologists are inaccurate in their ability to recognize distress in cancer patients and that depression often goes undetected. The aim of this study was to examine oncologist-patient agreement on specific depression symptoms, and to identify potential predictors of this accuracy. **Methods:** 201 adult advanced cancer patients self-reported depression symptoms with the BDI-SF. Their oncologists (n=28) answered the same questionnaire in a perspective-taking task. **Findings:** Intra-class correlations for individual BDI-SF items varied around a median of 0.30. Medians for sensitivity and specificity were 27.4% and 92.1%, respectively. Sensitivity was especially low for Failure, Guilt, and Suicide. Suicide showed extreme specificity at 100%. Additional findings pertaining to symptoms are discussed. Linear regression analyses identified predictors of accuracy. **Discussion:** Individual depression symptoms were difficult to detect. This is problematic, considering that oncologists act as a liaison to psychosocial services. Training could focus on key depression symptoms in this population.

Psychological interventions based on Leventhal's common-sense model (1980) for chronic illness

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A substantial body of research evidence demonstrates relationships between the components of the Common-Sense Model and health-related outcomes (Hagger & Orbell, 2003, for review). It is

however unclear when and how using the CSM to develop psychological interventions may result in an improved outcome. This study aimed to identify and appraise the effectiveness of intervention studies based on the CSM, identifying characteristics associated with effect, in chronically ill adult populations. Several electronic databases were searched (CENTRAL, CINAHL, EMBASE, MEDLINE, mRCT, ProQuest dissertation & theses, PsycINFO, Web of Science), alongside hand-searching and contacting experts. A systematic review and meta-analysis of empirical studies (N = 43) is presented, with eighty-six percent of interventions (N=37) having a significantly positive effect on at least one outcome measure. The analyses provide evidence for developing interventions informed by the CSM, and discuss characteristics of interventions associated with effect to inform future intervention design.

5 or 10 response categories for the Brief Illness Perception Questionnaire: What is better?

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Illness representations are important determinants of patients' coping behaviour and health outcomes, such as treatment adherence. The Brief Illness Perception Questionnaire (Brief-IPQ) is the most useful instrument to assess illness perceptions in very ill populations. The scale includes 9 items, has good reliability and validity and patients can complete it in a few minutes. The study is devoted to the examination of two rating scales (5 and 10 response categories) of the Brief-IPQ in patients with cardiovascular disease. The Rasch methodology was used in order to test rating scale assumptions effectively. The study involved 269 patients which responded at the 10 response scale and 251 patients which responded at the 5 response scale. Results showed that the 5-level rating scale was more effective to assess illness perception than the 10-level rating scale. Furthermore, in both groups, items 4 and 7 showed problems to measure "personal control" and "comprehensibility".

How people assess the risk of developing multifactorial diseases?

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Objective: the objective of this research is to study how people estimate the risk of developing multifactorial diseases according to risk factors as factors of filiation, behavioral and genetic. **Method:** three hundred and forty four health care practitioners and persons of the general public assessed the occurrence risk of multifactorial diseases such as coronary disease, rheumatoid polyarthritis and lung cancer according to the patients tobacco and alcohol consumption, the degree of kinship with the sick relative and the presence of a gene susceptible to the disease. **Results:** although the participants estimate the occurrence risk of multifactorial diseases after considering all the factors proposed to them, there are some peculiarities in the way the participants combine these factors in order to judge the occurrence risk of multifactorial diseases. **Conclusion:** In general, in spite of some peculiarities of judgment, the participants are able to estimate the risk of developing multifactorial diseases by discriminating between the respective weights of the genetic and behavioral factors in the occurrence risk of these diseases.

French university PhD students' sport practice: Relationships with perceived stress and somatic symptoms

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Background: Very few studies focus on PhD students, despite the fact that this population, at the very end of the university syllabus, is particularly vulnerable to stress and often faces precarity. Better knowledge of PhD students' health attitudes is necessary in order to plan prevention strategies. This study aimed at determining whether sport practice was related to stress and somatic symptoms. **Methods:** 2013 PhD French students (Mage = 28,9, SD = 5,24, Female 67,21%) were enrolled through an Internet survey. Participants completed two self-report scales measuring perceived stress and somatic symptoms. Their sport practice was assessed through a single item (categorised into 5 groups – from no physical activity to more than three hours/week). **Results:** Participants with regular sport practice reported lower scores of perceived stress and somatic symptoms than those with little or no sport practice. These results suggest that sport practice could be encouraged in health prevention programs.

Associations between empathy, coping and burnout among staff working with children and youth with disabilities

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Background: Little is known about work stress among staff taking care of children and youth with disabilities. This study's aim was to explore associations between empathy, coping strategies and burnout among these professionals. **Methods:** Professionals from a French institute specialized in the care of disabilities were invited to complete the Interpersonal Reactivity Index (measure of dispositional empathy, four dimensions: perspective taking, empathic concern, personal distress and fantasy), the Brief-COPE and the Maslach Burnout Inventory. **Findings:** Presently, 15 professionals took part to the study (mean age 40.9 years; 87% of women). Results show that empathic concern is associated with active coping, whereas personal distress is associated with denial. Fantasy is the only measure of empathy associated with burnout (emotional exhaustion). **Discussion:** These first results are different from those observed in other studies. They suggest that associations between empathy, coping and burnout are specific in staff taking care of youth with disabilities.

Influence of social-psychological training on the sense of community, state anxiety and trait anxiety

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People with a strong sense of community are happier, mentally healthier, have less worries and see themselves to be more competent to influence their life (Cochrun, 1994). A social – psychological training (SPT, 96 hours) was conducted with teacher trainees. Our aim was to find

out the influence of SPT on the psychological sense of community, state anxiety and trait anxiety. The experimental group (N=69) with SPT intervention compared to the control group (N=71) without the SPT intervention. The psychological sense of community, state anxiety and trait anxiety were evaluated before and after the intervention using the Perceived Sense of Community Scale (Bishop, Chertok, Jason, 1997) and the State-Trait Anxiety Inventory (Spielberger, Gorsuch, Lushene, 1980). The analysis showed significant decrease in state anxiety and trait anxiety, and a significant increase of the sense of community in experimental group. The SPT have influenced a healthy psycho-social development of teacher trainees.

Parental information-seeking behaviour in childhood vaccinations

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Background: Insight into the types and sources of vaccine information that parents use and reasons why they seek extra information is needed to inform parental decision-making in childhood vaccinations. **Methods:** Dutch parents, with one or more children aged 0-4 years, received an online questionnaire (N = 4000) measuring self-reported types and sources of vaccine information and psychosocial determinants of information-seeking behavior (response rate 14.8%). **Findings:** Almost half of the parents (45.8%) searched for extra information. Only 13% of all the respondents indicated a need for information, particularly about side effects of vaccines (25%). Intention to search for vaccination information was influenced by positive attitude and high perceived social norm towards information-seeking behaviour. **Discussion:** Easily accessible and reliable vaccine information sources (e.g., vaccine providers and the National Health Institute) should be available since many parents seek extra information. Information should include the advantages and effectiveness of vaccination, and also the side-effects.

Dental anxiety as a predictor of child's behavior in the dental chair

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Background: The aim of this study is to determine the relationship between caregiver and child dental anxiety and the child's behavior in the dental chair in children from Santiago, Chile. **Method:** Correlational study with 127 children (6 to 7 years). For the measurement of dental anxiety of the caregiver, Corah scale was used; for the child's dental anxiety Face Image Scale was used. Frankl Behavior Scale was used to assess the child's behavior in the dental chair. **Finding:** There is no relationship between the child's dental anxiety and the caregiver. There is a negative significant relationship between the child's dental anxiety and the child's behavior in dental chair, being the first a significant predictor of the second. **Discussion:** The caregiver-child transmission isn't an etiological factor of dental anxiety. Dental anxiety is a core factor that dentists must consider for the management of the child.

The mediate role of codependent tendency in stress model in Japanese nurses

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Background: Individual factors are considered as one of the mediator in stress model. Codependent tendency is considered one of the personality traits that nurses often have. We examined whether codependent tendency has any mediatory effect in stress model. **Methods:** 654 Japanese nurses were asked to answer measures. We formed the measures from Codependent Tendency Scale in Nurses (CTSN), Center for Epidemiologic Studies Depression Scale (CES-D) and job stressors. We analyzed these relations through Path analysis. **Findings:** The results showed that there were significantly indirect effects from job stressors to CES-D via CTSN ($p < .01$), and significantly direct effects from job stressors to CES-D ($p < .01$). Indirect effects from job stressors to CES-D via CTSN were less than the direct effects from job stressors to depressive condition. **Discussion:** Codependent tendency played a minor part in stress model. We need to study further what the role of codependent tendency is in stress model.

Homebound status as a risk factor for depressive symptoms in community-dwelling older adults

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Background: The aim of this study was to examine the impact of homebound status on depression in community-dwelling elderly Japanese people. **Methods:** A 2-year prospective study was carried out among 645 people aged 65 and over who were considered to have no form of depression at baseline. The 15-item Geriatric Depression Scale (GDS-15) was used to evaluate depressive symptoms. Homebound status was defined as going out of the house less than once a week. Information on sociodemographic factors, functional ability and medical conditions, was also obtained from a self-administered questionnaire. **Findings:** The prevalence of homebound status was 15% in this study population. Compared with non-homebound participants, homebound elderly had a significantly higher risk for depressive symptoms at 2-year follow-up, even after controlling for potential confounding factors (OR: 3.4, 95% CI: 1.4-8.4). **Discussion:** The findings suggest that homebound status increase the risk of depression among community-dwelling older adults.

Evaluating the psychological impact of practice dispatch-assisted cardiopulmonary instructions in using the ALERT protocol: Preliminary results in Liege dispatching centre

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Background: The ALERT algorithm, a effective compression-only phone cardiopulmonary resuscitation (CPR) protocol has the potential to help bystanders initiate CPR. This study

evaluates the psychological impact of the CPR's practice on untrained persons (UP). **Methods:** This is a quasi experimental longitudinal study (n = 123). We used: demographics data, CPR' emotional characteristics; the Peritraumatic Dissociative Experiences Questionnaire; the Way of Coping Check List and the Impact of Event Scale. **Findings:** Two psychological profiles: UP at high risk to develop a post traumatic disorder (scores > mean; high emotional distress during the CPR) versus UP at low risk (scores < mean). **Discussion:** These preliminary results highlight the importance of identifying the psychological profile of the UP. For a CPR, UP at high risk should be treated differently: first, take the time to reduce emotional distress and then only talk about the CPR. This step could reduce the risk for PTSD.

Type D personality and internet addiction in the population of university students

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The Type D (distress) personality is characterized as the joint tendency toward negative affectivity and social inhibition. The symptoms of internet addiction include distress, social discomfort, impaired social relationships, loneliness and depression. This study examines the relationship of Type D personality and internet addiction in the sample of 92 university students. Respondents filled out the Type D Scale-14 and Online Cognition Scale (OCS). The data were statistically analysed using SPSS 19. We assumed that inappropriate communicational patterns from the real world (social inhibition) will be repeated in the virtual world (internet addiction), however we found no significant correlation. On the other hand, we found significant correlation between negative affectivity and following subscales of OCS: lonely depressed (p= .213*), impulsive (p= .274**) and distraction (p= .208*). We suggest incorporate and evaluate the use of anger management in the treatment of internet addiction.

Body image dissatisfaction and bullying by gender

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Background: Bullying has an adverse effect on mental health of adolescents. Our aim was to investigate whether adolescents from 11 to 15 years in Slovakia who are dissatisfied with their body image, both feeling too thin and too fat, have greater odds for being involved in bullying in different roles. **Methods:** We used data from the HBSC study 2010. The final sample comprised 7583 adolescents (mean age=13.34; 48.2% boys). The effect of the self-reported body image on the involvement in bullying was determined using multinomial logistic regression. **Findings:** Adolescents perceiving themselves as too thin or too fat were more likely to become victim and bully/victim than adolescents with normal body image. Among girls, obesity was a significant predictor of bullying others unlike boys. **Discussion:** Prevention at schools should focus on the perception of body image and on self-esteem of adolescents to reduce the prevalence of bullying.

Somatic illness and the body “foreign”: Experience of breast cancer

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Introduction: The body is both the place where the subject can experience the deepest intimacy but also the most radical otherness. If the subject is a body, he can't get rid of the assumption that it has a body. Having a body, said its exteriority, its character radically “other.” Leriche (1936) stated that “health that's life in the silence of the organs”. This definition has the double advantage of positioning the patient as the source of the judgment (not the doctor), and pointed out that in case of disease, the body is not dumb. If the body is taken by the medical discourse, it does not exhaust its meaning. In effect, the disease, unspeakable, confuses the issue. It causes a strange disturbing (Brown, 2006). **Method:** The objective of this study is to observe the relation to the body of women who have experienced breast cancer. Our sample consisted of 10 women aged 43-72 years. Eight of them have undergone partial or total removal of the breast, three were subsequently performed breast reconstruction and a woman wears a prosthetic adhesive. Data collection was carried out through exploratory talks with the instruction was: “Can you tell me how you experience your body from your experience of breast cancer?” **Results and Discussion:** Following ablation, women experience a feeling of strangeness to the vision of their image in the mirror, “it's a hole.” They no longer recognize. This feeling is also associated with the fear of facing each other on their bodies. Breast reconstruction is then invested as likely to “fix” the injury caused and as an attempt to regain their integrity. However, it does not have the desired effect. It can be experienced as a dispossession body and its function as decoy is reminiscent of the disease itself. Women also evoke the feeling of strangeness in the face of this that is not theirs. This lead also experienced one of the topics to be removing his prosthesis. These results show how some mutilation is enigmatic to the subject. The individuals are experiencing a loss that grief is not always successful. As emphasized Deschamps (1997), “the body is rejected in its” monstrosity “that is to be seen grazing in the horrified look is what lies at all look in a deathly silence, a lonely and painful explanation castration with flesh.”

Real-life experience of neurologists when breaking bad news: Interest of using Interpretative Phenomenological Analysis

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Background: The study is focussed on real-life experience of neurologists when breaking bad news. **Methods:** sample of 10 neurologists. 5 semi-directive clinical interviews with neurologists using thematic analysis with Alceste software. 5 non-directive interviews with neurologists using IPA. **Findings:** - semi-directive interviews: themes: approach of announcement, cognitions, behaviours inferred by announcement, doctor-patient communication elements, - non-directive interviews: themes: subjective experience of doctors confronted with the experience of breaking bad news, gap between scientific knowledge and patients' perception of the experience, doctors' experience of powerlessness and frustration compared to the ideal of their profession. **Discussion:** Using IPA enables to stick to the doctors' real-life experience, it allows a process of elaboration and gives them the opportunity to modify their relationship with their patients and their attitude towards their profession.

Evaluation of a brief drug use prevention program among Slovak University students

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Background: The main aim of the study was to evaluate a brief drug use prevention program designed to develop resiliency and the reduction of alcohol use among students. **Methods:** The program consisted of 24 hours of psycho-social training and 12 hours of workshops related to the consequences of drug use. Before and after program comparisons of resiliency (Notario-Pacheco et al., 2011), and alcohol use (AUDIT) scores from baseline to 2 months follow up were carried out in a sample of 109 students (84.4% women, 22.6 mean age, SD=1.61) split into an experimental group (EG, 31.2%) and a control group (CG). **Findings:** A Wilcoxon Rank Test revealed significant increase in resiliency, $z = -2.34$, $p = 0.020$, and significant decreases in measures of alcohol use following participation in the program, $z = -2.56$, $p = 0.011$. **Conclusion:** The results provided an extension of the prior research findings by evaluating the effect of a brief drug use prevention program among university students and by supporting resiliency-based prevention.

Is online gambling harm a fact? Comparing online and offline pathological gambling

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Gambling and internet gambling have grown enormously worldwide over these last ten year. Much has been written about the risk factors and attractiveness of online gambling but only few studies have focused on the differences between offline pathological gamblers (PGOF) and pathological online gamblers (PGON). This research aims to characterize and compare PGON and PGOF in a sample of 1599 gamblers (959 online and 640 offline) (171 PGOF and 171 PGON). We use sociodemographics and gambling behavior questionnaires and scales. Results showed significant differences: PGON were younger, more likely to be male, had increased life skills and felt more protected while gambling, gambled more days per week but spent less money, consumed less alcohol, drugs and tobacco, and had less suicidal ideation, depression, anxiety and stress related problems than PGOF. This study pretends to contribute to put an intervention and accompanying preventive program for gamblers.

Discriminant content validation of a questionnaire for implementation research based on the theoretical domains framework

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Background: To improve the implementation of behavior change interventions it is essential to understand factors influencing providers' implementation behavior. We aimed to develop a generic

questionnaire assessing the 14 domains of behavioral determinants from the Theoretical Domains Framework (TDF; Cane et al., 2012), and to investigate questionnaire items' discriminant content validity. **Methods:** We identified existing questionnaires including items assessing TDF domains and developed new items. Nineteen judges allocated 81 items to one or more TDF domains. We used one-sample t-tests to assess the discriminant content validity of each item, i.e., whether items measured intended or a combination of domains. **Findings:** We identified items judged to measure domains discriminately, except for the domains reinforcement, goals, and behavioral regulation, whose items were judged to measure additional TDF domains. **Discussion:** We have developed a questionnaire which is able to assess most TDF domains discriminately, though further refinement is required.

Does social support by teachers affect hierarchal proactive coping strategies and psychological health of students?

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Background: Psychological stress has become a critical issue among Japanese junior high school students. The purpose of this study is to examine the relationships between social support by teachers, proactive coping strategies, and psychological health of students. **Methods:** 424 students (236 males, 188 females, mean age = 13.68 years, SD = 0.94) were asked to answer a questionnaire comprising socio-demographic questions related to the following scales: the Teacher Social Support Scale, the Proactive Coping Scale for Japanese Junior High School Students, the Awareness of Self-growth Scale, and the Stress Response Scale. Statistical analysis was carried out using exploratory factor analysis, confirmatory factor analysis, reliability analysis, and structural equation modeling analysis. **Findings:** The results confirmed that social support by teachers was positively associated with proactive coping strategies and awareness of self-growth. **Discussion:** The findings of this study suggest that providing support by teachers is an effective method to promote positive psychological health among Japanese students.

A behavioural-educational intervention to reduce high rates of paediatric asthma hospital admissions using intervention mapping

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Background: The six intervention mapping processes: needs assessment, proximal program objective matrices, theory-based methods and practical strategies, intervention design, adoption and implementation, and evaluation, were used to design a behaviour change intervention promoting effective asthma management. **Method:** Evidence review on asthma behaviour change interventions conducted. Quantitative paediatric emergency admissions data explored. Qualitative research of patient and family experiences of asthma and emergency asthma admissions explored. **Findings:** Self-management behaviours are critical component of asthma care and childhood asthma care may be influenced through behaviour and environment. A pilot intervention was developed to: provide more advanced asthma management, modelling and reinforcement via DVD of inhaler and spacer technique, promote GP and family interactions, improve self-efficacy. **Discussion:** The process demonstrates how an intervention based on self-regulatory theory is

applicable to asthma self-management behaviours and can be translated into practice. The next step is to implement and evaluate this pilot intervention.

Health promotion as a necessity for the XXI century: Challenges for health psychology research

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Until the XVIII century charlatany and quackery dominated. After that thanks achievements of science the clinical medicine developed. It has been scientific, has saved lives and has achieved great successes, especially nowadays. Since the half of the XIX century the next trend in medicine started to develop – prophylactics of diseases. It was one of the greatest turning points in understanding of public health. But one of its weaknesses was focusing on threats of health caused by unhealthy behaviors. During the second half of the XX century the idea of health promotion became the most important. Its main task is concentration on positive resources which contribute to healthy style of life. Thanks it, biological, social and mental wellbeing is possible. It is expressed in high quality of life, vitality, resilience, and engagement in acting. We are going to show during our presentation how those trends influence our research in health psychology.

Barriers to using a polypill in the secondary prevention of stroke: A qualitative interview based study

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Background: Treatment for secondary prevention of stroke is currently sub-optimal, particularly in older people. The aim of this investigation is to examine stroke survivors, carers and general practitioners (GP's) views on the current approach to secondary prevention of stroke and a new multi-agent treatment called Polypill. **Methods:** 20 stroke survivors, 5 caregivers and 5 GP's participated in semi-structured interviews. We examined attitudes towards current stroke treatment, perceptions around using a polypill, and beliefs on adherence and the role of carers in the management of medication. **Findings:** Data will be analysed using a qualitative grounded theory approach with key themes identified and reported at this meeting. **Discussion:** Findings will inform the design of a trial comparing stroke survivors using polypill with those on standard care, through an understanding of the perspectives around current stroke treatment therapy, acceptability of polypill and potential barriers to uptake.

Intimate relationships, gender and risky drinking: An international SLiCE study

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Background: Differences in risky drinking behaviour were explored among Slovak, Lithuanian and Hungarian university students depending on gender and intimate relationship. **Methods:** Data

were analysed from an international study SLiCE using two-way ANOVA. The total score of AUDIT (screening tool sensitive to early detection of risky drinking) was used as the dependent variable, gender and relationship status (single; married and not married but in steady relationship) as fixed factors. The sample consisted of 419 Slovak, 744 Lithuanian and 583 Hungarian university students. **Findings:** The score of risky drinking was significantly higher among men in all three countries. The drinking behaviour of Hungarian male students in long-term relationship was significantly less risky compared to those who were single. The drinking behaviour of women of all countries was not found to depend on their relationship status. **Discussion:** The results point to several patterns in risky drinking behaviour among university students in the three Eastern European countries and may prove useful for aiming health-related prevention programmes.

The perception of the environment and the use of self-regulatory strategies and body weight and the diet of children and adolescents

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The aim of the present study was to evaluate the association between close environment perception of children and young people, the use of self-regulatory strategies, nutrition and body weight of children and adolescents. The questionnaire study was attended by 1,170 pupils aged 12 - 17 (M = 14.09, SD = 1.63). The results indicate an association between body weight and level of self-regulatory strategy such as suppression of temptations and negative evaluation of interventions made by schools and those related to the sale regulations. Unhealthy eating habits were associated with less frequent use of self-regulatory strategies that avoid and control the temptation, more negative evaluation of parental and school interventions and sale regulations. Healthy eating habits were associated with more frequent use of self-regulatory strategies, positive evaluation of interventions and lower unhealthy foods availability.

Psychometric properties of Lithuanian version of adolescent/adult type A behavior scale (AATABS-3)

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Type A behavior has been identified as an important risk factor for ischemic heart disease by various researches. Evaluation of the risk factors for heart diseases is necessary from young age in order to make an effective prevention. There is a lack of valid instruments for measuring type A behavior pattern in adolescence and for young adults in Lithuania. 438 students (171 men and 267 women) aged between 18-28 (mean age 20.01 ± 1.76) completed Adolescent/Adult Type A Behavior Scale (AATABS-3) (Forgays et al, 1993). Analyses revealed good internal consistency (Chronbach's alpha), construct validity and temporal stability (test-retest validity) of the AATABS-3. AATABS-3 was also positively correlated with short (13-item) adapted Lithuanian version of Jenkins Type A behavior questionnaire used to measure type A behavior pattern in Kaunas-Rotterdam Intervention Study by WHO in 1972. We conclude that AATABS-3 is suitable for measuring Type A behavior pattern in Lithuanian population.

Evaluating an age-specific structured education course for young people with type 1 diabetes: Feedback and outcomes

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Background: To evaluate the acceptability of a 5-day structured education course (WICKED) for young people with Type 1 Diabetes and examine changes in medical and psychological outcomes. **Methods:** 40 young people who completed the WICKED course completed pre and post measures of knowledge, fear of hypoglycaemia, self-efficacy and quality of life. Medical outcomes were recorded. Young people participated in a course focus group and parents who completed a brief parallel course were contacted by telephone for feedback. **Findings:** Young peoples' self efficacy, quality of life and knowledge were significantly higher immediately after the course. Fear of hypoglycaemia remained unchanged. Young people and parents felt their respective courses were helpful and provided appropriate information. **Discussion:** Young people enjoyed the age-specific education courses and demonstrated improved psychological outcomes. Medical outcomes will be reported after six-month follow up. Suitable education for the age-group and the involvement of parents/partners will be discussed.

Evaluation of a serious game intervention to improve psychological preparedness for avoiding sexual coercion

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Background: An evaluation of a Serious Game for use in Relationships and Sex Education (RSE) is presented. The aim was to improve psychological preparedness for avoiding sexual coercion. **Method:** A small-scale cluster randomised controlled trial was conducted with a 2(time: baseline vs. follow-up)*2(condition: game vs. control) mixed design (N=505; 17 class-based clusters). Participants were aged 13-14 years with a mean age of 13.88 years (s.d.=.56 years). Three factors emerged from analysis of 16 measures. **Results:** A 2*2 mixed MANOVA revealed a significant main effect of time (F[3, 501]=2.847, p =.037, p2=.017), condition (F[3, 501]=7.27, p <.001, p2=.048), and time*condition interaction (F[3, 501]=15.306, p <.001, p2=.084). Improvements on two of the three factors were found for the game vs. control condition. **Discussion:** The game, currently being deployed in local schools, has the potential to significantly improve young people's readiness to deal with unwanted sexual advances and avoid negative consequences of coercion.

The effect of 'supersize' images on receipt of health messages about being overweight

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Background: Images depicting morbidly obese models often accompany articles about the health risks of being overweight. We investigated whether a mismatch between the body size depicted,

and that of the health message's target population, affects risk perception. **Methods:** 587 participants were randomly allocated to read a health message presented with: a photo of an overweight model, a photo of a morbidly obese model or no photo, and their responses to the message compared. **Results:** Overweight/ obese participants viewing a morbidly obese image perceived health risks to start from a higher body weight than those who saw the health message alongside no image ($F(2, 291) = 3.16, p = .04$). Perceiving the message as personally relevant was predicted by higher autonomous motivation for weight control and believing risk to start at a lower body weight. **Discussion:** The findings suggest that exaggerated media images might affect how overweight individuals interpret message about health risks.

Role of self-regulation and life optimism on sexual risk behaviour among young adults from Slovakia, Hungary and Lithuania

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The aim of this study is to explore associations among self-regulation, life optimism and sexual risk behaviour (SRB) among young adults. In 2011, an online questionnaire concerning health related behaviour including sexual behaviour, life optimism and self-regulation was distributed to 1st year university students from Slovakia (N=807,75% females, mean age 20,8), Lithuania (N=928,70% females, mean age 20,0), and Hungary (N=819,66% females, mean age 21,4). Multinomial logistic regression was performed in SPSS 16. Students from Hungary and Lithuania who scored higher on self-regulation (not optimism) were less likely to report greater sexual risk behaviour. This was not the case for Slovakia, where self-regulation and life optimism were not associated with SRB. Despite that previous studies confirmed the positive role of life optimism on SRB, our study shows that the concept of self regulations seems to be more protective than life optimism among young adults.

Stress, anxiety sensitivity, quality of life associated with health in welfare sample and pilot intervention

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The present study investigated the relationship between perceived stress as measured by the PSS-10, anxiety sensitivity as measured by the ASI-16, and quality of life as measured by the WHOQOL relating to physical/health problems measured by the PHQ-15 in a small, Social Welfare Services sample (N = 17) prior to implementation of a group intervention. Analyses indicated significant correlations between perceived stress and quality of physical health ($r = .71$), and anxiety sensitivity and physical/health problems ($r = .69$). Furthermore, there were significant correlations between perceived stress and quality of social relationship, of psychological health, and quality of environment to name a few. Further analysis indicated that anxiety sensitivity had significant effects on physical/health problems ($p < 0.05$). Analysis of data following the intervention indicated only a significant reduction in physical/health problems. Results are discussed in terms of previous research findings, the role of multiple stressors and effectiveness of occupational intervention.

Introducing “ALGEA”, an interdisciplinary approach for understanding and treating chronic pain

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The aim of this presentation is to introduce and describe the “ALGEA” project, an innovative bio-psychosocial intervention programme for the treatment of chronic pain, funded by the EU Cross-border Cooperation Programme “Greece-Cyprus 2007-2013”. ALGEA (the Greek word for suffering) aims to (a) enhance our understanding of chronic pain, as well as of the needs of chronic pain patients and their families, in order to (b) design and implement an innovative treatment program for these patients and their families. The intervention programme will employ an Acceptance and Commitment Therapy perspective and will use cutting-edge technology to develop customized treatment modules. It will also incorporate an interdisciplinary approach combining psychological intervention and medical therapy as the treatment of choice. The ALGEA project is implemented by the Department of Psychology, University of Cyprus, and the Department of Psychology, University of Crete. It was launched on December 2012 and will conclude on December 2014.

Pedagogical conditions preventing student-teachers’ burnout

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Background: The purpose of the study was to find out the level of burnout in university student-teachers at the end of their practical training and to investigate pedagogical conditions improving their psychological health. **Methods:** The sample consisted of 100 students at their last year, who had undergone their practical training as secondary school teachers. The students completed Maslach Burnout Inventory and made a ranked list of pedagogical conditions that had helped them to fulfill their professional tasks. **Findings:** The results showed low levels of emotional exhaustion and depersonalization, but a high level of personal achievement reduction. Among pedagogical conditions increasing personal achievements higher ranks belonged to didactical assistance and emotional support and lower ranks belonged to personal and professional self-development. **Discussion:** We consider stimulating personal and professional self-development to be a positive resource for stress managing and preventing personal achievement reduction in university student-teachers during their school practice.

Acceptance and commitment therapy (ACT) enhanced by text messaging for smoking cessation in adolescence

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Background: ACT makes use of beliefs and values to motivate a change in behavior and had been proven quite effective for smoking cessation. In this study, we investigated the effect of utilizing text messages in combination with ACT compared to ACT alone for smoking cessation and other smoking-related behaviors in adolescents. **Methods:** 225 smokers between 15-20 years, were randomly assigned to 3 groups, ACT therapy only, ACT + text messages group, 3) control

group. The three groups completed a variety of psychological tools, pre and post treatment, and also their Carbon monoxide (CO) levels were assessed. **Findings:** The levels of CO in the ACT+Text messages group was significantly reduced compared to the ACT group and Control, but no changes were observed in terms of psychological inflexibility or nicotine dependence. **Discussion:** ACT+Text messages appeared to have the strongest influence in smoking cessation reflected by CO levels. It appears that using treatment relevant reminders in a more systematic way is more beneficial than plain ACT. However, the psychological mechanisms behind this process still remain unclear.

Relationship between type D personality and health risk behaviors

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The study aimed at assessing the relationship between Type D personality and health risk behaviors. 202 university students (63 men and 139 women) aged between 18 and 26 participated in the study. The Type D Scale (DS14; Denollet, 2005) was used to evaluate Type D personality. Subjects completed Health Risk Behaviors Inventory (HBRI) (Irish, 2011) to measure their health risk behaviors (physical activity, diet, sleep, smoking, alcohol use). The results of the study showed that negative affectivity was more associated with health risk behaviors than Type D personality itself. Individuals having Type D personality had more inadequate sleep than non-Type D individuals. Students scoring higher in Negative affectivity also had more inadequate sleep than subjects with lower scores in Negative affectivity. Woman having higher Negative affectivity scores also had more inadequate sleep, greater involvement in cigarette smoking and alcohol use than woman with lower Negative affectivity scores.

The Czech longitudinal study of optimal development

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Background: This study aims for exploring the optimal development using data of the longitudinal studies following individuals since 1956 (Prague) and 1961 (Brno). **Methods:** The state of present well-being and its circumstances as the manifestation of optimal development in a current sample of 98 individuals (Prague) and 56 individuals (Brno) are surveyed by the same set of methods. **Findings:** Different aspects of well-being and selected health and behavioural variables have been compared with further constructs (resilience, human strengths) and with former data. **Discussion:** We should gain a larger understanding of adaptive functioning of personality during the life course.

Selected psychosocial influences on health in different European countries

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Background: The basic data concerning psychosocial influences on health in Czech districts (2002, 2011) are compared with available European countries data. **Methods:** Czech national

statistical data on sick leave, unemployment, income, the Gini coefficient, and their psychological reflection in respective districts are compared with the European data. **Findings:** The poorer Czech districts report a higher morbidity and higher unemployment rate. This Czech finding differs from other European countries' findings. **Discussion:** Some indicators of health (the number of sick leave cases) are affectable by the governmental interventions. The detailed similarities and differences within different European countries are demonstrated.

Illness perceptions and knowledge about cervical cancer in Brazilian women

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The purpose of this study was to examine the knowledge about cervical cancer and illness perception and compare those results between women with and without precursory cancer lesions. Participants were 169 women (41 with precursory lesions and 127 without), average age 40.24 year (SD=11.42). It was applied the Illness perception questionnaire for healthy people and the Questionnaire about cervical cancer knowledge. It was not found significant correlations between the dimensions of illness perception and knowledge about cervical cancer. General hazards (accidents, food habits, aging) were pointed more frequently as cause of the illness by women with precursory lesions than women without lesions ($t=-1.922$, $p<0.05$). Sexually active women showed larger negative emotional representation of the illness than sexually inactive women ($t=2.983$; $p<0.01$). It was concluded that knowledge and illness perception are independent concepts. So, providing information about cervical cancer to those women is insufficient to give them realistic illness perceptions.

Examining young driver willingness to uptake phone application driver monitors: Testing a structural model

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Young drivers (under 25) are vulnerable road users. In recent years, 'Phone Application Driver Monitors' (PADMs) have been developed to assist this driving group. These Smartphone apps provide real-time feedback for in-vehicle manoeuvres and online reports to improve driving skills. Research has indicated that PADM use can reduce driver risk-taking, however young drivers have reported minimal voluntary usage of monitoring devices. This paper reports the findings of a study in which a novel model of PADM technology acceptance was tested. 600 licensed, Smartphone users aged 18-24 completed an online questionnaire which required their response to a series of items examining acceptance factors for a standard PADM. Uptake was assessed through a behavioural intention scale and a decision to download a PADM one week after questionnaire completion. Structural equation modelling was employed to examine the overall predictive utility of the model in terms of model fit, explanatory power and paths significance.

Risk factors for criminal behavior among Pakistani women offenders

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This study aimed to examine the risk factors for criminal behaviors among Pakistani women offenders. Correlational research design was used. One hundred and fourteen women prisoners were recruited from Central Jail Lahore. Semi Structured Interview was used to identify risk factors. Through descriptive statistics following risk factors were identified; environmental risk factors, familial risk factors and personal risk factors. Environmental risk factors included illiteracy, lack of empowerment, inaccessibility to job opportunities, unemployment, and halted justice procedure. Familial risk factors consisted of impaired family environment, involvement of family members in criminal activities, and unsatisfactory relationship with in-laws. Personal factors contained poor problem solving skills, low level of frustration tolerance, and high level of depression and anxiety. This study provided an outline for the risk factors for women offenders in the context of Pakistani culture. These findings are helpful in suggesting the preventive measures and intervention strategies for psychological wellbeing of women offenders in third world countries.

Common mental disorders (CMDs) among women presenting with gynecological complaints

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The aim of the present study was to investigate the Common Mental Disorders among women reporting gynecological problems. Researcher collected the data from the both private and public hospitals of Lahore. Correlational Research Design was used in order to know the relationship between the variables. Purposive sampling was used in order to select data. A sample of 64 women with an age range from 20 to 60 years was collected. Semi Structured Interview was used by the researcher for the demographic variables. The General Health Questionnaire- 28 and Symptom Checklist- R was used in order to assess the Common Mental Disorders among women presented with gynecological problems. The descriptive analysis showed that majority of the women were married and Muslim. Results also revealed that women experienced more anxiety symptoms and somatic complaints than depressive symptoms due to gynecological complaints. It was also investigated that women who are more Gender Disadvantaged experienced more Gynecological Problems and Psychological issues.

Relationships between cognitive strategies and self-esteem, or the depressive tendency for Japanese college students

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The purpose of this study was to investigate the characteristics of defensive pessimism (DP) in relation to psychological properties. Subjects were 196 Japanese college students (94 males and

102 females, 19.8±3.3 years). Cognitive strategies were evaluated by the Japanese DP inventory. The degrees of self-esteem (SE) and depressive tendency were evaluated by using the Japanese SE scale and the center for epidemiologic studies depression scales (CES-D) respectively. As the results of cluster analysis of cognitive strategies, the subjects were divided into 4 groups, i.e., DP, real pessimism, strategic optimism, and control groups. Multiple comparison test indicated that the DP group showed the least mean score of SE and the highest mean score of CES-D (both $p < 0.05$), compared with the other groups. It would be needed to study for enhancing SE and reducing the depressive tendency in DP group.

Change in psychological self-portrait of widows and conditions of this change

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The research question has two part. First part shows change in psychological autoportrait of widows, second shows conditions of this change. The potential conditions of changes which were analysed: SOC, LOC, satisfaction from matrimony, distress of loss and satisfaction from social support. 200 participants (100 widows and 100 no-widows) were taken in the first part of research (connected with change exploration) - each of them completed KAP Questionnaire. And 100 widows continued participate in the study (connected with conditions of change) - each of them completed SOC-29, Delta Questionnaire, SPM Scale, DU Scale and ZW Scale. T-Student test was conducted to investigate change of self-portrait, and PA (path analysis) was conducted to investigate condition of this change. Results showed, that the exploration change generally is constructive. But changes in particular aspects of autoportrait are different. And the main condition of changes is sense of coherence which control another variables.

The process in the transition to parenthood from pregnancy to one month of after childbirth and its' care

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Introduction and Method: This study analyzes how the transition to parenthood changes the couple's consciousness. The study involves nine couples, examining the narratives collected by longitudinal interviews and participant observations from pregnancy to one month of after childbirth at some point in time from February 2002 to January 2011. **Result:** As a result, the study has found that there is a three-step process toward defining their own parental identities in the marital relationship: 1) Conflict Phase, 2) Recognition and Role-Finding Phase, and 3) Need-Sense and Role-taking Phase. Furthermore, the study in Japan shows that the mindset of a midwife work is also one of the factors affecting the formation process of the parental identity, as well as the attachment to the coming baby and the influence of family, friends, work, and peers in the childbirth class. **Conclusion:** We suggest that individuals in supportive roles (e.g., midwives) pass on the skills required to resolve issues between spouses, and speak to men or help create an environment in which men can achieve a feeling of acceptance from others, and help give meaning to the experiences of these men.

The association between motives for physical activity and the level of physical activity among adolescents

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Background: Our aim was to assess the associations between the motives for physical activity and the level of physical activity among adolescent boys and girls. **Methods:** We obtained data regarding motives for physical activity and the level of physical activity in 2010 via the Health Behaviour in School-aged Children study in the Czech and Slovak Republics (n=9018, mean age 11-15 years, 48% boys). We explored the association between the motives for physical activity and sufficient physical activity using logistic regression models adjusted for age. **Results:** Performance motives were significantly associated with physical activity in both genders. Among boys, physical activity was significantly associated with using more health motives and „good child” motives, and with using less social motives. **Conclusion:** Age and gender differences regarding the relations between physical activity and the four motives for physical activity among adolescents should be considered in interventions focusing on enhancing physical activity.

Stress, depression, personality and problematic internet use among Slovak university students: SLiCE study

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The aim of the study was to examine and explain the variance of independent variables on problematic internet use (PIU) among Slovak university students. **Methods:** The relationships were examined by the GPIU2 scale (Caplan,2002), TIPI (Gosling et al.,2003), PSS-4 (Cohen et al.,1983), M-BDI (Schmitt et al.,2003). The sample consisted of 237 (81,4%women) university students (M=19,84 year, SD=1,847). **Results:** Final linear regression model showed a negative association of extraversion ($\beta= 0.172;p<0.014$) and positive association of depression ($\beta=0.385;p<0.000$) with PIU explaining 22.6% of the variance in total. When conducted separately for gender final model for men showed a negative association of extroversion ($\beta=-0.512;p<0.004$) with PIU explaining 26,3% of variance and final model for women showed a positive association of depression ($\beta=0.452;p<0.000$) with PIU explaining 20,5% of the variance. **Conclusion:** These finding can be used in the process of creating prevention programs aimed at reducing PIU.

Children cured in neonatal intensive care unit: Outcome in preschool age

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Background: We examined developmental outcome of children cured in neonatal intensive care in relation to biomarkers of brain lesion and social-environmental factors. **Methods:** 32 children (preterm and full term) cured at intensive care unit after birth, who had verified brain lesion, were

assessed at preschool age (3-6) by Wechsler Preschool Scale of Intelligence, Child Behavior Checklist and magnetic resonance brain imaging. **Results:** Regression analysis showed that brain abnormality and socio-environmental status were predictors of general and nonverbal (performance) reasoning abilities. Verbal abilities were predicted only by social-environmental factors. Gestational age was not predictor of outcome. Behavior was not predicted by given variables. **Discussion:** Bio-medical lesion factors are more strongly related to nonverbal reasoning functions, and social-environmental factors to verbal. This should be taken into account in early intervention programs. Special focus should be put on interplay between social and biomedical risk factors because they create a double jeopardy for outcome.

Modern health worries: May holistic thinking style play a role?

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Background: The study aimed to investigate the contribution of illness-related and holism-related variables to worries about harmful features of modern life (modern health worries, MHWs). **Methods:** Participants (visitors of an Internet news portal; N = 16152; 64.1% males) completed a questionnaire assessing MHWs, somatosensory amplification, somatic symptoms, various aspects of health care utilization, positive and negative affect, spirituality, and holistic health beliefs. **Findings:** Exploratory factor analysis revealed two independent dimensions ('Illness' and 'Holism'), MHWs were equally involved in both dimensions with factor loadings of 0.353 and 0.386, respectively. According to the results of binary logistic regression analysis, positive and negative affect, somatosensory amplification, spirituality, holistic health beliefs, and somatic symptoms were positively connected to MHWs even after controlling for socio-demographic and treatment-related variables. **Discussion:** Holistic thinking and illness-related behavioral and psychological factors are independently associated with MHWs. Modern health worries can be conceptualized as illness-related by-products of a holistic-spiritual worldview.

The parent's influence on child's well being

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The purpose of the report was to investigate the connections of children's well being with children's perception of their parents. 40 children (20 girls and 20 boys, 5,2 yr. old) and their parents were participants. We have used the CAT (E. Kris) method. It was shown that the more child perceives his (her) mother as emotional close and father as supportive the higher level well being he (she) has. It was found that boys felt themselves closer to mothers than girls at this age. Those children who felt themselves closer to mother were more sensitive and dependant. Those children who felt themselves closer to father were more active and independent. It was shown that children assume themselves the feminine and masculine characteristics of the figure of identification.

It was found that the more child was closer to mother the less closer he (she) was to father and vice versa.

Effects of a biomedical risk assessment on young smokers' risk perceptions and intentions to stop smoking

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Background: To investigate the effects of a carbon monoxide (CO) reading on university students' risk perceptions and intentions to stop smoking. **Methods:** One hundred and fifty Greek university students (mean age= 21.6, SD= 2.15), who were smokers, were randomly allocated to receive their CO reading or generic information. All students filled out self-reports. ANOVA was used to examine the data. **Findings:** Young smokers, who received their CO, showed higher risk perceptions than the control group ($p < 0.01$). There were no significant group differences on intentions to stop smoking but an interaction between group and nicotine dependence ($p = 0.05$). More specifically, smokers with higher levels of nicotine dependence, who received their CO reading, showed a higher intention to stop smoking in 6 months. **Discussion:** Further study is encouraged in the use of CO assessments as a motivational tool for smoking cessation in younger smokers especially those with high addiction levels.

Self-esteem as a protective factor for eating pathology among adolescents

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The aim of the present study was to examine the mediating effects of self-esteem on the well-established association between dieting behavior as a risk factor for Eating Disorders (Stice, 2002). The Eating Attitudes Questionnaire (EAT-26) and the Rosenberg Self-Esteem Scale (RSE) were adapted in Greek and administered to Greek-Cypriot adolescents aged 12-16 years ($N = 264$). A simple mediation model was tested using a macro by Preacher and Hayes (2008). Results from bootstrapping supported the initial hypothesis and showed a significant ($p < .05$) indirect effect of self-esteem (point estimate: 1.20 with a 95% confidence interval of [.21, 2.65]). The direct effect of dieting on the EAT-26 scores was reduced due to the mediator, but remained significant, thus suggesting that self-esteem functions as a partial mediator. Results are discussed in light of self-esteem as a protective factor against eating disorders among adolescents who engage in dieting behaviors.

Emotional burnout and several stress indicators in adult psychology students

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Background: The purpose of this study was to investigate the association between emotional burnout and such stress indicators as neuro-psyche adaptation, psychological stress and unmotivated anxiety in adult psychology students. **Methods:** The sample consisted of 100 students (aged between 27 and 52), who were taking a retraining course of practical psychology. The students completed the questionnaires: Maslach Burnout Inventory, test of neuro-psyche adaptation (Gurvich), Psychological Stress Measure (PSM-25), scale of unmotivated anxiety (Boyko).

Findings: The results of correlation analysis showed that emotional exhaustion had significant links with all stress indicators. In particular, the higher emotional exhaustion was connected with lower neuro-psyche adaptation as a manifestation of health. Depersonalization was connected with unmotivated anxiety and psychological stress. **Discussion:** Personal achievement reduction hadn't any significant correlations with stress indicators. So we consider this parameter can be used as the main positive resource for stress managing and preventing emotional burnout in adult psychology students.

Perception of the communication with health care professionals for patients with cancer and their relatives

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Background: The aim of the study was to explore the perceptions with regard to communication with health care professionals among patients with cancer and their closest relatives. **Methods:** Thirteen semi-structured interviews were conducted with patients and one of their closest relatives. Analyses were conducted with NVivo 9 software and the IPA methodology. **Findings:** Most of the patients and relatives were globally highly satisfied with the communication with health care professionals. In addition, certain specific points were discussed regarding what is essential to a good quality of communication (i.e. proximity and humanism) and what must absolutely be avoided (i.e. brutality of disclosure or little information regarding treatments). **Discussion:** In general, patients and relatives tend to have the same needs regarding information and communication. However, some of them also present certain discrepancies as to what types of behavior, attitudes and/or information are required.

Change is good: Emotional acculturation predicts better somatic health among immigrant women

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Background: Acculturating into a new cultural environment is increasingly common. Acculturating is a demanding process often accompanied by stress and adjustment difficulties. While acculturation has been studied, there are few data examining how patterns of emotion and emotion regulation change following immigration and/or whether "acculturating" is linked to health. **Methods:** 915 immigrant women from Haiti, the Dominican Republic, the English-speaking Caribbean and Eastern Europe living in Brooklyn, NY, completed measures of emotion and emotion regulation together with a measure of somatic health. **Findings:** As expected, greater spent in the United States predicted greater emotional similarity between immigrants and the host culture. Immigrants who were emotionally more different (i.e., less acculturated) reported greater somatic symptomatology, although there was some variation depending on which direction differences lay. **Discussion:** Data are discussed in terms of their implications for interventions among immigrant groups and a model describing the factors influencing emotional acculturation is proposed.

Curvilinear associations between coping strategies and posttraumatic growth and distress among myocardial infarction survivors

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Background: To verify the longitudinal relationships between coping and positive and negative long-term myocardial infarction (MI) outcomes: posttraumatic growth (PTG) and stress (PTSD). **Methods:** Two hundred cardiac patients (age 53.73 ± 7.26 years; 70.5% women) participated in the study. Coping strategies (task-, emotion- and avoidance-oriented) were assessed two times: a few days after first MI and then six months later, while PTG and PTSD six years later. **Findings:** Significant curvilinear relations were observed only between PTG and emotion-, as well as task-oriented coping at first and second assessment, respectively (after controlling for earlier coping). Compared with the low and high instrumental and emotion coping groups, intermediate coping groups had higher PTG six years later. **Discussion:** The findings shed light on inconsistent results on effectiveness of various coping strategies and indicated different compounds of positive and negative changes arising due to somatic disease.

Bedtime procrastination: A novel perspective on sleep deficiency

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Background: Getting sufficient sleep is essential for people's well-being. Anecdotal evidence reveals that many people stay up later than intended and consequently sleep too little, but scientific data are lacking. Adopting a self-regulation perspective, we consider 'bedtime procrastination' as a –previously neglected– cause for sleep deficits. **Methods:** A survey study (N = 2000) assessed the prevalence of bedtime procrastination in a representative sample from the Dutch population. Measures of fatigue and hours of sleep were assessed to examine the construct's relevance and validity. Finally, we examined associations of bedtime procrastination with typical self-regulation factors (e.g., trait self-control, general procrastination). **Findings:** Preliminary regression analyses reveal a positive effect of bedtime procrastination on fatigue. Furthermore, bedtime procrastination is predicted by self-regulation factors. **Discussion:** Bedtime procrastination appears a relevant factor to explain insufficient sleep. Approaching the phenomenon from a self-regulation perspective opens up novel pathways to improve healthy (i.e., sufficient) sleep.

Employment status and perceived health status in patients with multiple sclerosis

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Background: The study explores the associations between employment and physical and mental health in patients with MS when adjusted for sociodemographic and clinical variables stratified by age. **Methods:** The sample (n=184; mean age 40.5 ± 6.2 years; 66.3% female) was divided into a younger (<45 years) and older (≥ 45 years) group. Data on health status (SF-36), employment

status, sociodemographic variables and functional disability (EDSS) were analyzed using t-tests and multiple regression analyses. **Findings:** Regarding the younger age group, being employed ($B=18.77$; 95%CI:11.91–25.63) was significantly associated with good physical health status, but adding EDSS weakened this association ($B=10.11$;95%CI:2.14-18.07 for employment). Regarding mental health status, the most significant variable remained to be employment ($B=10.68$; 95% CI:3.19-18.18). For the older age group, employment did not explain physical or mental health status. **Conclusion:** Being employed was more important for better physical and mental health in the younger people with MS, but not in the older ones.

Effects of physical and social activation on nursing home residents' sleep quality and psychosocial well-being

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This study aims to establish the effects of physical and social activation on residents' cognition, mood, behaviour and social well-being assessed by nurses as well as self-rated sleep quality. About 75 residents in 14 nursing homes were included in this ongoing cluster-randomized controlled interventional trial up to now. An experimental group of residents attending an activation program four times a week during an 8-week study course is compared to a non-treated control group. Nurses use the Cognitive Performance Scale, the Depression Rating Scale, the Aggressive Behaviour Scale and the Index of Social Engagement for evaluating residents' psychosocial well-being. Subjective sleep quality is assessed using Insomnia Severity Index. Increased daytime activity seems to have stronger impact on residents' self-rated personal wellbeing than on psychosocial status assessed by nurses. Preliminary experience with a physical and social activation program in nursing homes indicates potential for improving residents' subjective sleep quality.

Eating fruit instead of candy when desiring something sweet: Compensatory cognitions predict a healthy lifestyle

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Changing behaviors represents a major challenge for many individuals. The present study introduces the construct of compensatory cognitions with regard to behavioral substitution. The research goal was to examine its relationship with self-regulation and health behaviors. Data was gathered using an online questionnaire ($n=355$). Compensatory cognitions (replacing unhealthy behaviors with healthy alternatives) were assessed. Furthermore actual behavior (physical activity, diet & smoking) as well as self-regulatory constructs were measured by means of questionnaires. Data analysis was performed using factor analysis and regression procedures. The compensatory cognitions scale showed a one-dimensional factor structure ($\alpha=.75$) and medium-sized interrelationships ($r=.2-.4$) with self-regulatory scales and behavior. Stepwise regression analysis showed incremental validity of compensatory cognitions above self-efficacy and planning in predicting behavioral intentions ($\beta=.20-.22$; $p<.05$) and physical activity behavior ($OR=1.6$; $p<.01$). The construct shows potential for predicting health behavior change and provides further insights into its underlying processes. The scale shows good quality.

Are loneliness and social network size associated with cognitive function in depressed and non-depressed elderly?

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Aim: To determine if loneliness and social network size are related to cognitive function in depressed and non-depressed elderly. **Methods:** Case-control study, including 378 depressed and 132 non-depressed elderly (60 – 93 years). Participants completed questionnaires on loneliness and social network size and were administered several cognitive tasks to evaluate four domains of cognitive function; memory, executive function, working memory, and processing speed. Analyses were performed for depressed and non-depressed separately, adjusting for age, gender, education, alcohol use, physical activity, severity of depression (only within the depressed group). **Findings:** Larger social networks were associated with better memory, only in the absence of depression ($\beta=0.22$, $p=0.02$ for non-depressed elderly). Social network size was not associated with the other domains. Loneliness was not associated with cognitive function in either group. **Discussion:** This suggests that a larger social network may be beneficial for memory for non-depressed, but not for depressed elderly.

Needs assessment for a school-based intervention to promote physical activity among vocational school students

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Background: Socioeconomic health disparities may be prevented in adolescence, and school setting offers broad reach and feasibility of intervention implementation. This study synthesizes evidence for a context-appropriate, theory- and participant need-based intervention to promote physical activity (PA) among Finnish adolescents. **Methods:** Synthesis of: 1) the Active Life as Adolescent Survey (ALiAs, to be conducted in spring 2013); 2) a literature review; 3) qualitative interviews of vocational school students (N=15) and 4) discussions with key informants (N=6). **Findings:** Topics emerging from qualitative interviews describe constraints and motivation for engaging in PA. Screentime and PA emerge as two competing activities for many. The key informants were concerned about the wide gap between active and inactive students and time spent sitting among those studying in more sedentary study fields. **Discussion:** Conceptual framework for PA and sedentary behaviour and theory- and evidence-based methods for behaviour change will be specified based on the needs assessment.

What does theory tell us about behaviour change maintenance? A structured review

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Background: The aim of this theory review was to identify theoretical explanations for behaviour change maintenance and to assess their relationships. **Methods:** The review is based on an

existing database of behaviour theories; systematic electronic database searches and expert advice. Each theory was reviewed to identify the relevant theoretical variables and hypotheses about behaviour change maintenance. **Findings:** We identified and critically examined over 100 theories. The majority of theories assumed that the factors underlying behaviour initiation are the same for behaviour change maintenance. Few theories explicitly addressed maintenance, and included the following factors: satisfaction with behavioural outcomes, behaviour enjoyment, congruence with values and beliefs, reinforcement, coping and success with overcoming relapse, self-regulation, available resources and level of automaticity developed. **Discussion:** Behaviour change maintenance appears to be an 'under-theorised' area. More testable and comprehensive theoretical assumptions of behaviour change maintenance are needed which can explain sustained health behaviour following behaviour change.

Temperament in the dynamics of coping in Type 2 diabetes: Direct and indirect relationships

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It was investigated whether the changes in cognitive appraisal and coping strategies mediate the effect of temperament on changes in positivity ratio (ratio of a positive to negative affect) among patients with type 2 diabetes. 278 patients completed the Formal Characteristics of Behavior-Temperament Inventory, the Situation Appraisal Questionnaire, CISS-S and PANAS just before conversion to insulin treatment and then, one month later. Results of MANOVA's showed increases in negative appraisal and emotion-oriented coping, decrease in positivity ratio. Mediation analysis indicated that the ability to maintain effectiveness while performing stimulating activity (endurance), the tendency to continue behavior/emotional states (perseveration) and to maintain a high tempo of activities (briskness) were connected with changes in positivity ratio. Changes in negative appraisal and coping mediated these effects. The results confirm the stressful nature of the initiation of insulin treatment and contribution of temperament to behavior and emotional state in confrontation with stressors.

Effects of submissive behaviors on anxiety depending on assertiveness level

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Background: Some professional situations require submissive behaviors, which lead to anxiety (Fischer, 1968), but the assertiveness prevents anxiety (Gilbert et al. 1995). Therefore, we assume that people with a strong assertiveness are less affected by the obligation to be submitted and are then less anxious than people with a poor assertiveness. **Methods:** A sample of 419 employed people answered to the Submissive Behaviors Scale, the scale of assertiveness and the Hospital Anxiety and Depression scale. We studied the effect of submissive behaviors on anxiety for four levels of assertiveness (based on quartiles) using structural equation. **Findings:** All pathways were significant except for the group with high level of assertiveness, $\beta = .20$, $p = .06$, CI95% = [-.01, .42] and the effect of submissive behaviors on anxiety was highest for the group with a poor assertiveness, $\beta = .28$, $p < .001$, CI95% = [.11, .45]. **Discussion:** These results showed that training to develop assertiveness are necessary to decrease anxiety regardless of the employment status.

Evaluation of the influence of psychological factors on balance control compensation after vestibular schwannoma surgery

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Background: Vestibular schwannoma surgery induces balance disorders which have an impact on the daily life of patient and disrupt their quality of life. This study evaluates the relationship between postural control and psychological factors during the process of vestibular schwannoma resection. **Methods:** The research protocol is based on 5 evaluations: 3 days before surgery and 8, 30, 90 and 360 days after surgery. Assessments include posturography tests, videonystagmography and psychological questionnaires (NEO Personality Inventory-PIR, Brief COPE, IPQ-R, WHOQOL-Bref, HADS) at each evaluation. **Expected Results:** We expect that patients with a personality profile with lower emotional stability have a lower postural performance recovery rate. Patients with a personality profile with some emotional stability have a better postural recovery performance. **Results:** the first results with regard to coping, illness perception and quality of life tend to show the specificity of this disease before and during the three months following surgery.

From fair-play to faith-play: When a sport-injury reveals some narrow links between flow, well-being and spirituality

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Between peak performances, painful experiences and embedded injuries in the fields of sport, the first purpose of this communication will be to reveal the relationship between spirituality, flow and extreme physical experiences. The second purpose is to propose the structure of a Faith-Play Model (FPM). The data presented are from in-depth interviews with twelve persons (five men and seven women) severely injured when they practised sport. We'll explain the characteristics of two main axis which emerge from interviews' analysis: The phenomenon of false-self-loss which appears during extreme physical experiences; The image of emotionally healthy injured persons which are correlated with a motivational variable that underlies individuals' efforts at creating a broad sense of personal meaning within an eschatological context. In conclusion, to integrate the relationship between individual and societal well-being, we'll precise how to be aware of both the positive and the negative potentials of this model.

Mental health and timing of motherhood: Too early, too late, or just right?

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Background: There is considerable debate about the optimal timing of motherhood, but little population-level evidence on its relationship with mental health. **Methods:** We used data from 5,569 members of the 1973-1978 cohort of the Australian Longitudinal Study on Women's Health to examine trajectories of mental health (SF36 Mental Health Index) over 5 surveys spanning 13

years of their peak childbearing ages. Using multi-level modelling, we compared groups of women who had become mothers at various ages. **Findings:** All women showed improvements in mental health over time. Women who had their first child by Survey 2 (aged 22-27), Survey 3 (aged 25-30) or Survey 4 (aged 28-33) had better mental health than those who already had children when the study started (aged 18-23) and those without children at Survey 5 (aged 31-36). **Discussion:** These data suggest a bidirectional relationship between good mental health and having children at a socially normative age.

A new cognitive training of stress and adaptation management: A comparative study with students-pilots of French Air Force

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Background: The anxiety-state is often higher in new and/or complex situations. This would be due to the perseveration of an automatic mental mode, suited for simple and/or familiar situations. For an effective coping occurs, the adaptive mental mode seems more appropriate. It provides cognitive, behavioral and emotional strategies more suited to new and complex situations especially when this situation represents a challenge. **Method:** In this study, we tested the effectiveness of a new cognitive and behavioral training program (Mental Mode Management, MMM) based on the switch from an automatic mode of operating towards more adaptive one in a new and/or complex situation. We compared the effectiveness on anxiety and adaptive strategies of a Human Factors program (HF) and of MMM over a population of students-pilots of the French Air Force (n = 34). **Results:** Results showed that 66.7% of pilots whose anxiety level was reduced belonged to the MMM group compared with 33.3% for the HF group. Pilots from MMM groups also making fewer flying errors, $t(16) = -2.75$, $p < 0.01$, $d = -0.94$, and used more adaptive strategies, $U = 102.0$ $p < 0.01$. **Discussion:** It was demonstrated that MMM program allows a better adaptation to new, complex and simulated-risk situations. The MMM training could be also effective for others new and complex situations as bad and arduous health situations.

Coverage of influenza vaccination on Dutch news sites and social media websites

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Background: E-health information has been found to sometimes be in contradiction with health authority's recommendations. This study investigated the coverage of influenza vaccination on Dutch news sites and social media websites. **Methods:** Data was collected by means of a media monitoring programme, processed with QSR NVivo 8.0 and subsequently analysed using a general inductive approach. **Findings:** Three overarching themes were found in both media sources: the (upcoming) influenza epidemic, general information regarding the virus, its prevention and treatment, as well as the uncertainty and mistrust regarding influenza vaccination. In social media influenza was predominantly not considered to be a serious disease and considerably more opposition to the flu shot was expressed. **Discussion:** The kind of information that is found depends on the kind of media one is exposed to. E-health information may influence the success of vaccination campaigns and recommendations by health authorities.

Socio demographic variables and association between health perception and life-style

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Background: Health is highly individual perception. Health perceptions influence people's life, habits, care taking. We aim to explore relation between health perception and life-style. **Methods:** 121 subjects; Questionnaires: Life-style and Health Perception. **Analysis:** Correlation and compare means. **Findings:** Unfound differences between gender, marital-status, age concerning Health Perceptions and Life-Style ($p > .05$). Upper educational degree scored higher in Nutrition ($F=3,848$), Exercise ($F=10,891$), Alcohol ($F=0,055$), General Life-Style ($F=0,229$), Past Health ($F=5,321$), Actual Health ($F=0,000$), General Health Worries ($F=0,243$). Rural inhabitants scored higher on: Drugs ($F=4,205$), Alcohol ($F=0,770$), Transport ($F=11,691$), Past Health ($F=0,150$) [$p < .05$]. Negative association between Health Worries and Pollution ($r=-.236$), Prevention ($r=-.201$), General Life Style ($r=-.192$). Positive correlation between Medical Attitude and Prevention ($r=.245$) [$p < .05$]. **Discussion:** Health perception has an important and specific influence on people's life-style. Socio-demographic variables take a non-influence role on life-style and health perception. Health Worries may be identified as a needs management for modifications in life-style or needs for continued care.

Predictors of physicians' empathic accuracy (EA) on advanced cancer patients' distress

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Background: This study aims at determining the predictors of physicians' empathic accuracy (EA) on advanced cancer patients' distress. **Method:** 201 metastatic patients rated their distress using the distress thermometer. Independently, 28 physicians inferred patient's distress on the same tool (1 to 10 patients per physician). EA was the difference between a physician's and a patient's rating. The investigated predictors were physicians' empathic attitude, self-efficacy in their EA, patients' emotional suppression and distress, and physician-reported quality of the relationship with a given patient. Multilevel analyses were performed. **Findings:** EA was better for higher distress but patient's emotional suppression and a good physician-reported patient-physician relationship lessened EA when patients' distress was high. Other variables were not significant. **Discussion:** These results confirm the importance of patients' expression and suggest that a good patient-physician relationship could hinder EA when patients get distressed so that physicians should be careful with well-known or "easy" patients.

Intervention engagement promotes smoking cessation: Effect of offering a monetary donation to an online program

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Many studies have shown that programs on smoking cessation are effective in the short-term, but the behavioral change is rarely maintained over time. The aim of the present study was to

investigate whether engaging in a cessation program by offering a donation has a positive effect on long-term success of smoking cessation. Participants (N = 13,174) of a longitudinal online program had the possibility to financially support the program. Self-reported abstinence rates were assessed at 8 measurement points in time over 10 weeks and were compared between participants who offered a donation and those who did not. Those who showed higher intervention engagement by offering a donation were more likely to refrain from smoking at each measurement point in time ($p < .001$). High intervention engagement, such as online activities, might explain why smokers succeed in changing their behavior in the long run. Thus, future research may investigate how to prompt intervention engagement.

Acceptability judgment about physician assisted suicide among lay people, the effect of the type of suffering

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Object of study: Our research relates to the conditions of acceptability of the physician-assisted suicide among lay people. Are studied the impacts of the type of suffering (physical or moral), the patient's request, his age and the incurability. **Method:** 113 persons have judged the acceptability of each of the thirty-six proposed scenarios (results of the combination of the four factors, Integration Information Theory of N.H Anderson). **Results:** The analysis of variance shows that three of the four factors (request, age and curability) play a role. The "type of suffering", has no significant impact. Three groups of participants are characterized by the weights which they give to the various factors and by the combinative rules that they use. **Conclusion:** The acceptability of physician assisted suicide depends on the factors, but the "type of suffering", that does not appear in many previous works, has no significant effect: physical and moral pain are judged as the same way.

Physical activity risk perception scale for diabetics: Development and preliminary validation

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Background: A measure of perceived health risks of physical activity (PA) among diabetes is needed for examining its effects on PA participation. This study developed and validated the Physical Activity Risk Perception Scale for Diabetics (PARPSD). **Methods:** Chinese diabetic patients (N=183; Mean age=62.23[SD=14.69]; 63% being women) completed the 25-item PARPSD and measures of PA self-efficacy, outcome expectations, barriers, and PA participation. The PARPSD was administered again after two weeks (sub-sample: N=48). **Findings:** A principal-axis factor analysis with promax rotation yielded three factors including symptoms, injuries, and complications, with satisfactory internal consistency ($\alpha=.82-.87$) and moderate temporal stability ($r=.45-.75$). Beyond the psychosocial constructs, PARPSD factors explained 5% ($p < .01$) variance of PA in a hierarchical regression analysis. Among the PARPSD factors, injuries was significant ($\beta=-.19$, $p < .05$). **Discussion:** PARPSD demonstrated satisfactory psychometric properties. Future studies can examine the determinants and consequences of PA risk perceptions among diabetics to facilitate further theories and interventions development.

Drink before you think: The influence of automatic processes on alcohol consumption

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Background: Recent research has highlighted the importance of automatic processes in predicting impulsive health risk behaviour. This has led to the creation of health behaviour models such as the Prototype Willingness Model (PWM) which take into account dual processes when predicting health behaviour. The current research argues that individuals are more likely to engage in impulsive drinking behaviour on a weekend as opposed to a weekday as there are fewer constraints placed upon drinking behaviour. **Methods:** Participants (n= 61, mean age= 22) completed an alcohol Implicit Association Test as well as a questionnaire assessing variables on the PWM and drinking behaviour. **Findings:** More positive alcohol-related automatic cognitions were significantly related to increased levels of both frequency and quantity of self-reported weekend drinking behaviour but were not significantly related to weekday drinking behaviour. **Discussion:** Automatic processes successfully predicted drinking behaviour when there were fewer constraints placed upon individuals.

Understanding patients' medication beliefs: The importance of patient satisfaction

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Background: Providers have a key position in addressing patients' beliefs. Our aim was to explore the relation between patients' satisfaction and patients' beliefs towards immunosuppressive and biological therapy prescribed for inflammatory bowel disease. **Methods:** Patients' beliefs (N=84) were measured using the Beliefs about Medicines Questionnaire. Patients' satisfaction was measured with 29 statements concerning general information about disease and treatment, support regarding medication use, and affective communication. We asked patients to indicate to what extent the consultation was tailored to their specific needs. **Results:** More than half of the patients had concerns or little personal need for medication. Beliefs remained consistent after six months. Patient satisfaction about the level of tailoredness and patient satisfaction about information given during the consultation was significantly correlated to more positive beliefs. **Conclusions:** The results highlight the significant role of patient satisfaction with provider communication and the value of tailoring in relation to medication beliefs.

Relationship between the parental feeding practices and diet, body weight and fat tissue in parent-child dyads

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Background: The aim of the study was to determine the relationship between the Parental Feeding Practices and healthy and unhealthy diet, body weight and fat tissue among children. **Methods:** Parental Feeding Practices were assessed with measures by Gubbels et al. (2011),

Musher-Eizenman and Holub (2007) and Vereecken et al. (2004). The participants were 130 dyads of child (6-11 years) - parent. Data were collected with standardized interviews, questionnaires, and using certified body weight and fat scales. **Findings:** After controlling for parental body weight, child's adipose tissue, body mass index and diet relate to following parental practices, reported by both parents: involvement in meal planning/preparation, pressure to consume more food at meals, restriction for weight control, monitoring, stimulation healthy intake, restriction unhealthy intake, encouragement through material reward, permissiveness, and making healthy foods available. **Discussion:** Accessibility, meals planning and rewarding were the key factors related with body fat tissue.

Mental representation and health status in cancer patients' relatives

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Background: Relatives of cancer patients experience psychological distress, sometimes even greater than the patient's. Our aim is to assess how the relative's mental representation about their relative's cancer is associated with their own physical and emotional adjustment. **Methods:** semi-structured interviews with 42 relatives of cancer patients were carried out. Health status (GHQ) and mental representation (BIPQ) of their relative's illness were registered. **Findings:** "Comprehension", "Duration" and "Treatment control" have the highest scores in MR dimensions; and "Personal control" the smallest one. "Identity" and "Consequences" are associated to the worst health status outcomes, including emotional impact ($r=[.41, .62]$; $p \leq .01$). "Identity" is related to disease time ($r=-.33$; $p=.03$). External causal attribution is associated with "Treatment control" perception ($K-W= 8.37$; $p=.015$). **Discussion:** First illness steps are important in the suffering experience. Comprehension of "cancer" and confidence provision in possibilities of treatment will let better control perception and good health in patients' relatives.

Does medical recommendation predict walking in Fibromyalgia people?

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Background: Adherence to physical exercise in Fibromyalgia is a main issue. Walking is recommended for these patients. **Aim:** to identify the predictors of adherence to a walking pattern in Fibromyalgia. **Methods:** 920 women belonging to Fibromyalgia patients' associations completed a mailed questionnaire. Logistic regression analysis were conducted to identify predictors of walking (yes/no) and of walking well (following the specific recommended pattern for Fibromyalgia) or badly. **Findings:** Medical recommendation ($POR=1.845$; $CI95\%=1.34, 2.54$) age ($POR= 1.021$ $CI95\%=1.01, 1.04$) and fatigue in last week ($POR= 0.909$, $p= .008$) were significant predictors. Perceived impact of fatigue was the only predictor of walking well ($POR=0.916$; $CI95\%=0.85, 0.97$). **Discussion:** The best predictor for walking was the medical recommendation but not for walking in the correct. Pain perception and sociodemographics and clinical variables did not show a relevant contribution. It is important to teach doctors in how to give instructions for walking to Fibromyalgia people. Supported by Spanish Ministry of Economy and Competitiveness (Grant: PSI 2011-25132).

Meta-analytic evaluation of habits as mental associations

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Background: Habits are important determinants of many health behaviors. Previous theory and research have hypothesized that habits gain their power from learned mental associations between cues and behavioral responses. Although much research has evaluated habits in terms of their automaticity, little is known about their associative nature. **Methods:** I use meta-analytic regression to evaluate hypotheses that derive from basic principles of associative learning—the habit-behavior correlation should be stronger for behaviors that are simpler, more frequent, more appetitive or rewarded, more contextually stable, performed by an older population, and are not in the process of deliberate behavior change. **Findings:** So far, analyses have identified support for behavior change effort as a moderator of the habit-behavior correlation, as well as an interaction between sample age and measurement time. Further analyses are in progress. **Discussion:** Enhancing our understanding of habits as mental associations may generate new association-based techniques for building healthier habits.

Associations among psychosocial variables, health and survival in different cohorts of old persons

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Research findings show inconsistencies regarding both the role and significance of psychosocial factors in their association with old people's health and survival. Cohort effects have also been indicated. Aim of this research is to investigate these associations for different cohort groups of old persons with different sociodemographic characteristics. Participants came from three studies conducted in the 19 years period, 1152 persons, 769 women and 383 men, on average 76 years old at baseline measurement. Data were collected by survey questionnaire consisting of measurement scales, administered individually, and followed up until the end of participants' life. Women survived longer than men, especially never married women. Participants' educational status did not contribute significantly to survival. Multivariate analyses showed that psychosocial variables: self-assessed health, functional ability, social support, significantly contributed to survival prediction. Thus, biological status, psychophysical health, and psychosocial status, respectively, contributed the most in explaining survival, similarly in different cohorts.

Determinants of representational and behavioural “hyperactivity” in patients with fibromyalgia syndrome

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Background: We examined the contextual and personality factors influencing premorbid hyperactivity in patients with fibromyalgia syndrome. **Methods:** Forty-five fibromyalgia patients

completed questionnaires measuring representational and behavioural hyperactivity. The contextual factors included income, years of education, help received, and number of children; the personality factors included perfectionism, self-sacrifice and neglect of basic bodily needs (assessed by the Basic Bodily Needs Attitude Scale). **Findings:** Representational hyperactivity was positively associated with the number of children, self-sacrifice, self-oriented perfectionism, and neglect of basic bodily needs. The number of children and the neglect of basic bodily needs (and their interaction) explained nearly 50% of the variance for representational hyperactivity. A mediation analysis showed that the neglect of basic bodily needs completely mediated the relation between self-oriented perfectionism and hyperactivity. Behavioral hyperactivity, on the other hand, was only positively associated with the number of children. **Discussion:** Representational and behavioral aspects need to be distinguished in further studies examining premorbid hyperactivity.

Regulation systems state under different psychological types, defense mechanisms and health behavior

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In research was examined state of organism regulation systems by heart rate variability (HRV) analysis. It was hypothesized that psychological types, defense mechanisms and healthy habits have different relations with regulation systems. It is known that their disbalance and low HRV bring to decrease of life quality and longevity. At sample of 217 students (112 men, 105 women) were measured HRV indexes, personality types by MMPI, defense mechanisms by Life Style Index and healthy habits by Health Style: A Self Test. It was found that men and women mostly have different correlations between HRV and psychological features (33 significant correlations). Only two general correlations were revealed: positive connection between lie scale and stress index (HRV) and negative connection between projection and sympathetic regulation. We conclude that men's and women's psychological features differently connected with regulation systems. This fact should be taken into account at designing interventions for changing non-healthy behavior.

French prenatal and postnatal parental attachment scales: Translation and cross-cultural adaptation

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Quality of bond between parents and child is an important measure of family health. The objective of our study was to establish the French versions of maternal and paternal, prenatal and postnatal attachment scales developed by Condon (1993), Condon & Corkindale (1998) and Condon, Corkindale & Boyce (2008). We applied the methodology for translation and cross-cultural adaptation of health status measures developed by Beaton, Bombardier, Guillemin & Ferraz (2000). We followed a four stage process: translation, synthesis, back-translation and expert committee review. The French versions of the attachment scales present the four: semantic, idiomatic, experiential and conceptual levels of equivalence. Further studies on face validity and psychometric properties are being led. The development of the French version of parental prenatal and postnatal attachment scales allows the assessment of parent-child relations and quality of caregiving in a French speaking population and in cross-cultural studies.

Determinants of children's attitudes towards disabled people

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Background: Disabled children frequently experience negative attitudes and discrimination, which can lead to low self-esteem and depression. The contact hypothesis suggests contact between members of different social groups will improve attitudes towards each other. The aim of the current study was to test the contact hypothesis in the context of children's attitudes towards disabled people. **Methods:** A school-based survey measured attitudes, direct contact, indirect contact, empathy and anxiety towards disabled people. Responses (20 schools, 1520 children) were analysed using multivariate regression. **Results:** Greater direct and indirect contact was associated with more positive attitudes towards disability. Furthermore, the effects of contact on attitudes were mediated by higher empathy and lower anxiety towards disabled people. **Discussion:** This study supports the contact hypothesis in the context of children's attitudes towards disability. Contact is a feasible target to modify in health interventions aimed at improving children's attitudes towards disability.

Social support and adherence to therapy after heart ischemia disease

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Background: Social support (SS) has been directly related to the decrease of heart patients' mortality by promoting and improving adherence to therapy. Relate social support and therapeutic adherence in patients with heart ischemia disease is our goal. **Methods:** This is a cross-sectional study with 254 individuals with ischemic heart disease in follow-up consultation at Health Centers in Viseu, Portugal. We used a self-administered questionnaire: Sociodemographic, SS and Measure Adherence to Treatment (MAT). **Findings:** Approximately 74,0% were men with aged between 44 and 86 years (66,94±11,62). Women showed better averages regarding to the perception of SS and its dimensions, being statistically significant except in the Emotional Support. About 4% of MAT variation is explained by SS ($\beta = -0,199$; $t = -3,232$; $p = 0,001$). **Discussion:** SS offered to chronic patients and the way it is perceived is very importance for the development of new strategies in the adherence to therapy.

Locus of control of patient with ischemic heart disease and adherence to drug therapy

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Background: Locus of Control (LC) is a personality characteristic which refers to patients' perception on the control of events in their life. We intend to study if LC is a predictor of adherence to therapy in patients with ischemic heart disease. **Methods:** This is a cross-sectional study with 254 individuals with ischemic heart disease in follow-up consultation at Health Centers in Viseu,

Portugal. We used a self-administered questionnaire: Sociodemographic, Recovery LC Scale and Measure Adherence to Treatment (MAT). **Findings:** Men presented predominant of Internality dimension ($t=2,116;p=0,035$), women Externality ($p=0,571$) and Powerful Others ($p=0,031$). Approximately 12,5% of MAT variation is explained by Internality ($\beta=-0,226;t=-3,146;p=0,002$) and Powerful Others ($\beta=0,172;t=2,388;p=0,018$). **Discussion:** Studies indicate that patients with Internality dimension are more cooperative, which contradicts our results. LC is a fundamental psychological variable in the decision of adherence and therapeutic strategies, so health professionals should encourage patients to develop strategies in order to increase Internality.

Family cohesion: Perception of patients with ischemic heart disease and the impact on adherence to drug therapy

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Background: The onset of chronic disease in the individual causes a family restructuring and a redefinition of roles with implications for family dynamics. **Methods:** This is a cross-sectional study with 254 individuals with ischemic heart disease in follow-up consultation at Health Centers in Viseu, Portugal. We used a self-administered questionnaire: Sociodemographic, Family APGAR (FA) and Measure Adherence to Treatment (MAT). **Findings:** We found that most individuals (56,7%) had a Highly Functional Family (HFF. Women had better FA than men ($t=4,396;p=0,000$). Patients who reported to have a HFF are the ones who adhere better to treatment ($F=14,429;p=0,000;R^2=0,1341$). We proved by multiple comparison of averages (ANOVA and Tukey) that the statistical differences are located between HFF and Family with mild dysfunction ($p=0,000$) and HFF with severe dysfunction ($p=0,000$). **Discussion:** It is necessary to promote a good family cohesion and give support to less functional families to facilitate adherence to therapy.

The importance of self-concept on adherence to drug therapy in patients with ischemic heart disease

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Background: It is universally accepted the importance of psychological factors, such as self-concept, in coronary disease. The way a person sees himself/herself can have influence in the individual. This contributes to a better and faster rehabilitation. We intend to study the influence of self-concept in adherence to treatment. **Methods:** It is a quantitative, descriptive, correlational and cross-sectional study involving 254 individuals with ischemic heart disease, users of outpatient cardiology of Hospital Center Tondela-Viseu. We used a self-administered questionnaire: Sociodemographic, Clinical Inventory of Self-concept and Measure Adherence to Treatment (MAT). **Findings:** Men presented better values in Self-Efficacy ($p=0,004$) and Impulsivity/Activity ($p=0,01$). About 6,8% of MAT variation is explained by Self-concept ($F=3,605;p=0,004$). The explanatory model is $MAT = 3,718 + (-0,484\text{Acceptation/Rejection}) + (-0,272\text{PsychologicalMaturity}) + (-0,280\text{Impulsivity/Activity}) + (0,323\text{Global Self-concept})$. **Discussion:** An intervention on the psychosocial problems, such as in self-concept, is crucial in complete and effective patients' recovery. For this, it is necessary to improve adherence to obtain health gains.

Occupational resilience assets questionnaire (ORA-Q): A multilevel tool for assessing resources at workplace

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With reference to the workplace, researchers suggested that there are multiple buffers against stress contributing to the overall likelihood of the resilient outcome. The aim of the present study is to present the Occupational Resilience Assets Questionnaire (ORA-Q), a questionnaire developed in three different levels (organizational, occupational, and personal) for assessing resilience resources at work. The development of ORA-Q is based on a survey of a sample of 1,518 Italian employees aged 18-55 years. Altogether 45 questions were tested with exploratory factor analysis, internal consistency and criterion validity. Principal component analysis enabled to identify the hypothesized factors. Logistic regression analysis confirms the role of all resilience assets as buffer against stress conditions. Linear regression analysis highlighted the resilience assets' significant associations with job satisfaction. ORA-Q is a valid resilience measure in the workplace and a reliable tool for international research. Its three-level structure facilitates surveillance, benchmarking and evaluations of interventions.

Predictors of health complaints in detained women

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Background: Detained women have various health complaints and the extreme need to use health services. The aim of this study was to investigate the prevalence and predictors of health complaints in this group. **Methods:** Two hundred and twenty-nine Portuguese detained women were screened for health complaints (Rotterdam Symptom Checklist), socio-demographic, juridical, and medical history. **Findings:** Regression analysis found four statistically significant predictors: age ($\beta = .147$, $p = .035$), being mother ($\beta = .148$, $p = .034$), chronic conditions ($\beta = .586$, $p = .000$) and being on remand ($\beta = .218$, $p = .000$), and this regression model explains 36% of variability of health complaints. **Discussion:** For most of the women, the contact with prison health services, is the first opportunity to have a diagnostic and medical care. So, the time spent in prison is an opportunity for intervention and can contribute to a greater quality of life and a more successful reintegration.

Comparison between women prisoners and non-prisoners at the level of depressive symptoms and suicide attempts

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Background: The literature has shown that depressive symptoms and suicide attempts are frequent in the prison context. **Aim:** The objective of this study was to compare prisoners and

non-prisoners women at the level of depressive symptoms and suicide attempts. **Methods:** A total of 394 women (n prisoners = 211) completed the sociodemographic and risk behaviors questionnaire and depression subscale of Psychopathological Symptom Inventory (BSI). **Findings:** Women in prison have higher depressive symptoms, $t(388) = 5848$, $p < .001$ and more suicide attempts, $t(391) = 5182$, $p < .001$ than a comparison group of women in community. **Discussion:** It is necessary to develop effective health care to improve psychological health of inmates.

The effects of negative cognitions on traumatic distress: Cognitive processes as mediators

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The purpose of this present research is to investigate the role of vicarious trauma beliefs in developing symptoms of traumatic stress. Also, we hypothesized that cognitive processes of rumination, suppression, and detachment would operate as mediators between negative cognitions and traumatic distress. A total of 138 medical staff completed measures of trauma beliefs, responses to intrusion and secondary traumatic stress. The results emphasized the importance of cognitive schemas as predictors of traumatic stress symptoms. Also, our data indicated that suppression and rumination mediated the effects of negative cognitions on traumatic distress. The results provide insight into a mechanism through which negative cognitions may affect traumatic distress and highlight the importance of examination of multiple vulnerability factors in increasing understanding of traumatic stress.

Differences in value systems and attitudes towards values of men and women in adolescence

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The aim of our research, based on existing research results (Senčová, 2001, 2006), was to find out differences in value systems and attitudes towards values of adolescents from the aspect of sex. To determine the system of preferential values and attitudes towards values we used questionnaire of value orientations, attitudes towards values and motivation of performance (Vonkomer, 1991), which is based on Spranger's conception. Research file consisted of 100 adolescents, 48 males and 52 females. In the research file were equally represented students of secondary schools and universities. Average age of respondents was 19.54 years. Among all discovered differences in value orientations, we confirmed differences in preferences of social values by women ($p < .01$) and economical values by men ($p < .01$). Social area was also the only explored area, where the attitude of women towards social values was of a higher significance than that of the men ($p = .010$). According to the research resources we can generally state that among all, women put higher value on social and men on economical values.

Relation of life meaningfulness and preference of value orientation areas by adolescents

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The research aim was to determine the relationship link of individual areas in life meaningfulness and preference of value orientation areas of adolescents. To identify life meaningfulness and its areas, we used Life Meaningfulness Scale (Halama, 2002) and to identify preference areas of value orientation we used Questionnaire of value orientations, attitudes to values and motivation of performance (Vonkomer, 1911). Research file consisted of 100 adolescents, 48 males and 52 females. The ratio of secondary school students and university students was equal. Average respondent age was 19.54 years. We discovered significant relationship between educational values and cognitive component of life meaningfulness of adolescents ($r = .223, p < 0.05$), which confirmed that achieving good results in education is very important for respondents' personalities. Significance of motivational component of life meaningfulness was detected to be on the same level together with educational values ($r = .211, p < 0.05$), and also aesthetic values ($r = .208, p < 0.05$). This result shows satisfaction, resulting from meaningful value activities and life aims of adolescents.

Incentivising pill-taking: Assessing the impact of financial incentives on the processing of risk-relevant information

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Background: Concerns exist that financial incentives for changing health-behaviours undermine the processing of risks associated with incentivised behaviours. This web-based study assesses the impact of financial incentives on i) willingness to take a pill with side-effects; ii) attention to risk-information and iii) the processing of risk-information. It further assesses whether effects are moderated by cognitive load. **Method:** Two-hundred-and-seventy-five university staff/students were recruited online under the pretext of being screened for a fictitious drug-trial. Participants were randomised to no compensation, £25 or £1000 for taking a pill and the presence or absence of a cognitive-load task. **Results:** The offer of £1000 increased willingness to take the pill ($OR = 3.66, CI_{95\%} 1.27-10.6$) and attention to risk-information ($F(2, 270) = 7.14, p = .00$), an effect reversed by cognitive load ($F(2, 270) = 35.4, p = .00$), but didn't undermine risk-information processing. **Conclusions:** Findings challenge concerns regarding financial incentives and risk-information processing, but highlight the need for cognitive-load minimisation when presenting information about incentivised health-behaviours.

Exploring the trait of mindfulness with self-compassion to aid weight loss

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This research explored whether (a) Negative Automatic Thoughts (NAT) and Intolerance of Uncertainty (IU) were predictive of weight control, (b) the traits of mindfulness and self-compassion

offer useful strategies for weight control, separately and together, and (c) mindfulness and self-compassion mediate the effect of NAT and IU on weight control; all in a controlled stressful environment that presented high weight fluctuations. Ninety-seven Army recruits were measured in mindfulness, self-compassion, NAT and IU the first day they arrived in an Army base. Further, height and weight were measured at baseline and after five weeks to record weight differences. Results revealed that lower levels of NAT, including IU predicted weight regulation failure; that higher levels of self-compassion and mindfulness predicted weight regulation success; and, that self-compassion and mindfulness mediated the negative influence that NAT and IU have on weight regulation. This research concluded that self-compassion and mindfulness may aid weight regulation.

How do they manage it? An observational study of health and social care waste management

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Background: This observational study sought to provide insight into how health and social care staff manage waste to inform behavioural interventions, for the improvement health service provision. **Methods:** Four health and social care sites in Cornwall, UK participated in the study. The overt observation systematically sampled two locations for each site. Disposal event information was collected along with field notes, diagrammatic sketches, photographs and semi-structured staff interviews. The analysis utilised thematic content analysis and a novel assessment of hierarchical importance for the primary themes. **Results:** From across sites, the primary themes generated in the analysis include: Priority/ concern, awareness, classification, segregation, knowledge, equipment, subjective perception, uncertainty, spatial layout and memory/cognition. **Discussion:** The primary themes suggested important areas for behaviour change interventions to target. There is evidence of site specific waste disposal behaviours. Accounting for the specific waste management system at a site is a key consideration when designing a behaviour change intervention.

Qualitative study of posttraumatic growth: Free or driven interview?

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In agreement with the need to fill the lack of qualitative studies on post-traumatic growth (PTG) (Hefferon et al., 2009) and consistent with Emslie (2005), the complexity and richness of the PTG in adversity can be better understood through a qualitative approach. The aim of this research is to understand how you have to use the interview to obtain deep information on the growth process. To meet this objective free and driven interviews (N=27 liver transplant patients) has been compared. The responses were analyzed using McAdams' redemption coding system (2001). The responses to the stimulus free show less presence of sequences of redemption (M=0,96; SD=1,32) than the responses to the stimulus driven (M=8,33; SD=4,62). In addition, the responses to the stimulus free show a prevalence of sequences of recovery (M=0,56; SD=0,80), while the responses to the guided interviews show a prevalence of sequences of growth (M=2,93; SD=1,96).

Domain specific life satisfaction of Lithuanian emigrants: What motives are related to re-emigration intentions?

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Many Lithuanians associate emigration with possible improvement of their well-being, thus the unmet expectations might be the reason of remigration. Still the question if economic wellbeing or psychological reasons are more important for remigration ideas is not answered. The study is intended to establish the relations between domain-specific satisfaction with life and remigration intentions of Lithuanian emigrants. A cross-sectional survey using self-report questionnaire (consisting of SWLS, scales of domain-specific satisfaction, and intention of re-emigration questions) was carried out. The total sample included 241 Lithuanian emigrants (Mean age = 28.4 years; 31% males). Although only 13.3% of respondents indicated clear re-emigration intentions, these Lithuanian emigrants expressed less satisfaction with living conditions, promotion opportunities at work, nature of work, family life, and were less satisfied with life in general. The results show that the subjective evaluations of social but not economic aspects of living are more important factors of re-emigration behavior.

Self-regulation mediators of success in obesity interventions: A systematic review for the SPOTLIGHT project

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Background: This review evaluates motivation and self-regulation factors that mediate medium/long-term weight change, physical activity, and energy intake in clinical and community behavior change obesity interventions. **Methods:** Studies were identified through electronic database searches. Experimental/quasi-experimental studies were eligible if they reported intervention effects on hypothesized mediators (e.g., self-determination) and the association between these and outcomes of interest (weight change, physical activity, energy intake) for overweight/obese adults. Quality and content of selected studies are extracted using standard measures, and findings tabulated. **Results:** After screening the abstract of 231 potentially relevant articles, 65 full-text articles were assessed for eligibility. Of these, 39 studies were included. Data extraction is expected to end in February 2013. Outcomes will be analyzed separately. Conclusions will be drawn based on a narrative synthesis of self-regulation mediators. **Discussion:** Identifying self-regulatory mediators of change in obesity-related behaviors in overweight/obese individuals can improve interventions' design and efficacy.

Job satisfaction and self-efficacy to manage dementia in home caregivers: Effects of a three-day intervention

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There is a growing need for interventions designed to help professionals who care for people with dementia. Nevertheless, most existing programs are developed for professionals working in

institutional settings. Thus, the objectives of our study are to evaluate the effectiveness of a three-day program aimed at training home help services (n=18). This intervention is targeted to enhance knowledge about dementia and help professionals to develop problem-solving strategies applicable to their everyday practice. Statistical analyses were based on self-report questionnaires administered before and after the intervention. Results indicate that participants find focused-problem coping to be more helpful after training and have better knowledge about dementia. Moreover, the program produces enhancement of job satisfaction and lower ageism scores. These findings are promising and suggest that a brief program can be effective to help caregivers of home-based services dealing with dementia problems.

Risk perception in chronic fatigue syndrome

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Background: Is psychosomatic illness associated with characteristic patterns in people's perceptions of risk? **Methods:** Participants were 89 patients with Chronic Fatigue Syndrome (CFS), 52 patients with Asthma, another chronic illness, and 138 healthy people. Participants judged the likelihood of developing different types of illness (e.g., heart attack) or experiencing physical threats (e.g., burglary), both for themselves and for others of the same sex and age. Oxford Medical Sciences IDREC provided ethical approval. **Findings:** There was a significant interaction between group, risk type and self/other, with age as covariate. The group x risk interaction was significant for self, but not for other. People with CFS, but not the other groups, perceived themselves to be at greater risk of illness than of physical threat. **Discussion:** Individuals' perceptions that they possess a relatively high susceptibility to illness may be linked to enhanced monitoring for symptoms, contributing to vulnerability to psychosomatic illness.

Promoting detection behaviours: Untangling the effects of loss- versus non-gain-framed communicational messages

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As detection behaviours involve the risk of discovering diseases and individuals are risk-seeking when facing losses, the most efficient promotional messages should be framed on losses. Several studies demonstrated however little or no difference between loss- and gain-framing. Still, loss-framed messages in these studies often contain non-gain sentences, decreasing the intensity of framing-effects. This research aims to test the persuasiveness of loss-framing over non-gain and gain-framing in promoting a cholesterol-screening test, also considering different level of issue-involvement. The loss-framed-message significantly increased participants' efficacy perception and behavioural intentions as compared to gain- and non-gain-framed messages. The effects of gain- and non-gain-framed messages did not differ one to the other. These data shed light on the importance of framing a promotional message on losses, and not on non-gains or gains, in order to increase its efficacy. The discussion will focus on the role of risk and efficacy perception as determinants of framing-effect.

Quality of life of people with fibromyalgia

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Background: Fibromyalgia syndrome is defined as a debilitating disease, characterized by musculoskeletal pain, fatigue, sleep disturbances, depression and rigidity. **Objectives:** Evaluate the impact of fibromyalgia on quality of life and analyze the influence of socio-demographic variables and health in Quality of Life. **Methods:** descriptive-correlational, quantitative analysis, cross-sectional and retrospective study. **Sample:** 221 fibromyalgia patients. **Results:** 61.0% of the sample, the impact of Fibromyalgia is serious; And this contributes to, fatigue and tiredness morning caused by non-restorative sleep; Most individuals have good QOL (38.0%); The impact of fibromyalgia greatly influences significantly QOL; The higher the impact syndrome lower the overall QOL and in all domains; The majority of the sample classifies as strong or unbearable pain in at least 12 of 19 body regions, being continuous and increasing, and very significantly influencing the impact of Syndrome and Quality of Life; **Conclusions:** There is interdependence between the various socio-demographic and clinical sample.

Quality of life of siblings individuals with autism

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Introduction: In terms of national context the studies carried out the life quality of the brothers of autistic children/adolescents are quite scarce, which reinforces the relevance of new investigations so that it is possible to realize, on one hand, the real impact that an autistic child causes within family and on the other, to be able to develop new action strategies in order to mitigate these effects. In this assumption, the present study had as objective: to know the quality of life of the brothers of autistic children/adolescents and determine associations between socio-demographic context variables, psychosocial and family and the different areas of this same life quality. **Methods:** This is a non-experimental study, descriptive and triangulated transversal nature, involving 68 siblings of persons with autism included in APPDA-Viseu. For the measurement of the variables was applied a questionnaire to collect information on socio-demographic data and a scale for evaluating the quality of life in children and adolescents (Portuguese version of the Kidscreen instruments). **Results:** The analysis concluded that the life quality of siblings of autistic children/adolescents is very satisfactory ($M = 67,51$) for most, meeting the highest figures linked to the dimensions, provocation, economic issues and general mood. Aversely, the aspects most affected are the leisure, the friendships and the school environment. We note further that global life quality is higher in boys, between 7 and 12 years, attending the 1st and 2nd cycles, whose knowledge was given by other elements, compared to the parents and even those who do not feel harmed. **Conclusions:** the evidence found in this study confirm the multiplicity of factors involved in the life quality: invite us to reflect on new strategies that make it possible to obtain a better knowledge that facilitates the establishment of training and information programmes, aimed at promoting the quality of life of these subjects.

Satisfaction with life in elderly home care

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Background: Over the last few years, there has been a rising concern towards keeping elder people in their own homes instead of sending them to private institutions giving rise to home support services. The aim of this service is to act with the subject's family (when present) in order to prevent him from falling apart from society and from feeling joy for living. Feeling joy for living is to which one relates at any given phase of his life, even through the old age. The joy for living is influenced by several components such as personal, social and psychological. **Objectives:** To identify the satisfaction levels towards life in the case of elder people with home support services and in what way it relates to socio-demographic and psychosocial variables. **Methods:** The investigation approach used is of the quantitative type, non-experimental, descriptive, correlative, retrospective and transversal. Thirty-three elder people took part as subjects for this study. The gathering of data integrates the following sections: Personal factors, Situational factors, Family functionality scale evaluation and the Life satisfaction scale. **Results:** The most of the subjects for this study are above 70 years old married women. They don't have nearly much studies, are retired due to old age and have limited financial resources. They benefit from home support services for between one to eight hours per week and their perception of the response to emergency, disease or financial situations is very positive. Most of the subjects find their family to be moderately dysfunctional and to have had a moderate or high level of engagement towards them. The results obtained through the Life satisfaction scale reveal that most elder people are unsatisfied or moderately satisfied with their life in general, however, no statistic correlation was established between this last result and the socio-demographic and psychosocial variables.

Hope and quality of life in the third age

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Background: Ageing has taken in recent years, a growing importance in the collective consciousness of the population becoming increasingly important to understand the elderly population and its reality in order to improve their quality of life. Coupled with the quality of life and aging becomes important to study the Hope understood as a cognitive trait where they are included positive beliefs regarding the ability to achieve personal goals. **Goals:** To investigate the relationship between Hope and Quality of Life and social and demographic variables of two groups of elderly. **Methods:** The research model adopted is a quantitative, non-experimental and correlational. Participated in this study 100 elderly residents in Batalha, Leiria, divided into two groups: the elderly living in two nursing homes (n=50) and older residing in the community (n = 50). Most seniors (69%) are female, with an average age of 84.38 years. Data were collected through a questionnaire composed of a set of demographic questions, a Hope Scale (Portuguese version), and an Evaluation Grid of Quality of Life for Older Persons, design by the Portuguese General Health Direction. **Results:** In this study differences were not found between groups for Hope. With regard to sociodemographic variables were found significance for the state of health, number of children and family concern. With regard to the quality of life there were differences between groups, and the same was true for most variables except for sex and age. It was also the existence of a relationship between Hope and Quality of Life.

Autonomy and aging: How we compensate perceived or real memory losses in everyday life? Validation and normalization of the memory compensation questionnaire

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Our aim was to establish a French Version of the Memory compensation Questionnaire that measures individual differences in the tendency to select particular strategies to overcome perceived or real memory losses. The data of 749 cognitively healthy adults (63% females; age = 16-92 years) were analyzed. Confirmatory factor structure was used for the construct validity and reliability and a Spearman correlation for the criterion validity. Data normalization was made through a regression analysis. The findings showed that the factor structure of the F-MCQ corresponded well with the two others version. The reliabilities were all good ($\alpha \geq .62$). Criterion validity reported stress and health composite effects. Normalization showed only an effect of genre and age. A normalized excel tool was created for an easy ergonomic use. Finally, a program was provided to facilitate scoring and norming by clinicians and researchers who need to assess daily compensatory behaviors.

'Is AIDS an everyone's concern?' The case of the 2012-13 Italian campaign

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Background: The literature on HIV/AIDS communication campaigns emphasizes the importance of segmenting the audience into groups in order to increase efficacy. However, the psychosocial literature warned about risks related with blaming marginalized 'out-groups'. According to this, the 2012-13 Italian National campaign on HIV/AIDS was targeted to specific groups, but communicated the message that "AIDS is everyone's concern". **Methods:** Aim of the study was to investigate the perception of the communication materials among different target groups. 10 focus groups were realized, interviewing participants of different genders, sexual orientations, ages, and nationalities. **Findings:** Transcripts were analyzed through qualitative content analysis. Results showed that campaign materials were generally well understood and positively evaluated by participants. A number of themes emerged, including 'othering': participants did not perceive themselves as the target because some 'other' group was. **Discussion:** Findings are discussed in the light of current health-promotion theory. Possible improvements for future campaigns are suggested.

Line manager experience and attitudes towards attendance management

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Line manager responsibilities have recently diversified to extend to return to work management alongside traditional duties. Line managers play a mediating role between the organisation and employees as well as influence a multitude of worker outcomes. The aim was to explore the

attitudes and experience of line managers towards return to work and absence management. Semi-structured interviews were conducted with 10 purposively selected line managers from private and public sectors. The interviews were analysed using Interpretative phenomenological. Themes included identity, barriers, change, control, cynicism and divisions. Despite strong affective ties, line manager's expressed concerns regarding a lack of consistency, trust, disclosure and decision-making authority. This was coupled with suspicion towards the legitimacy of absences and exploitation of the system. This knowledge can help inform policies to address line manager concerns as well as providing a basis to further examine the validity of exploitation claims.

Psychosocial impact of orthognathic treatment: A follow-up study

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Surgical orthodontic (Orthognathic) treatment is a particularly expensive and protracted treatment provided to patients by the NHS, yet treatment outcomes are not documented accurately within current scientific literature. 164 patients referred for Orthognathic treatment previously took part in a study that recorded levels of psychological well-being and self-perception prior to any treatment (Burden et al., 2010; Johnston et al., 2010). The current study is a longitudinal cohort study. Changes in psychological well-being (RSES, STAI, ASR and BDI-II) and a qualitative questionnaire assessed levels of self-perception in patients who had and had not completed their Orthognathic treatment. 40 post-surgery patients and 22 patients who did not have surgery (either orthodontics only or no treatment) from the original study agreed to participate. T-tests were conducted. Significant differences were found across several measures. A combination of qualitative and quantitative findings will help increase knowledge about patients referred for this type of treatment and psychosocial benefits gained from the different treatments available.

Five years from now: Expectation of future quality of life in older people

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Background: Older people's expectations of future quality of life (ExQoL) influence healthy ageing. We examine ExQoL in a random sample of the population of Dalarna, a Swedish region. **Methods:** A self-completion questionnaire assessed demographic characteristics, current local and regional evaluations, self-evaluations, and expectations for the future, including a measure of ExQoL. In total, 786 people aged ≥ 65 years participated (response rate 66.4%). A sequential multiple regression determined prediction of ExQoL. **Findings:** The model explained 44% of the variance in older people's ExQoL. The largest amount of unique variance in ExQoL was explained by regional status opinions ($sr^2=.02$), general health ($sr^2=.03$), and expectation of regional future ($sr^2=.03$). **Discussion:** Older people's ExQoL was more positive when they also had more positive views of their region, while self-reported health was also important for ExQoL. Place attachment and self-reported health should be considered in the development of effective social policy for late life.

Who is responsible for my new heart? Health locus of control among heart transplant recipients

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Background: Patient compliance is essential for the course of treatment after heart transplantation. Beliefs about responsibility for the new heart can influence everyday decisions. We assessed relations between health locus of control, personality traits and health behavior among heart transplant recipients. **Method:** 35 patients (M=56, SD=13,11) after heart transplantation (2-20 years after the surgery) completed NEO-FFI Personality Inventory, Multidimensional Health Locus of Control Scale and Health Behavior Inventory. **Findings:** Internal locus of control was related to prophylaxis ($p<0,05$), Powerful Others was related to prophylaxis ($p<0,05$), positive attitude ($p<0,05$) and general health behavior ($p<0,05$). Chance was related to health practices ($p<0,05$) and general health behavior ($p<0,05$). Significant correlation were also found between personality traits and health locus of control but not between personality and health behavior. **Discussion:** health locus of control (more than personality traits) is related to patient's decisions about preferred ways to take care of their health.

Self reported health and quality of life differences in school teachers depending on gender

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Background: Controversial data exists about health inequalities depending on gender within social groups. Aim of this study is to disclose the differences of self-reported health (SRH) and quality of life (QoL) in school teachers depending on gender. It is presumed that females SRH and QoL are worse than males. **Methods:** 135 male and 894 female school teachers were investigated as a social sub-group in Joint Health project with Kaunas Regional Municipality by using WHO QoL-100 and 6 items of unifactorial health scale. Cr. α value for all scales was within interval from 0.6 to 0.8. **Findings:** No differences were found in five domains of QoL between males and females. Males scored better than females on six items of SRH. **Discussion:** Expected gender related differences in health were better disclosed by using items directly reflecting self-health evaluation than using scores of domains WHO QoL-100.

Social participation and health-related quality of life in patients with multiple sclerosis

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Multiple Sclerosis (MS) does not cause only physical impairments in patients who suffer from the disease, but also problems in their social interactions. The aim of this study was to examine the

association between social participation and the physical and mental components of quality of life (PCS, MCS) in patients with MS. 85 MS patients completed the SF-36 and P-scale questionnaires. Disability was assessed using the Expanded Disability Status Scale (EDSS). The associations were analysed using linear regression, with PCS and MCS as dependent variables. EDSS and participation were significantly associated with PCS (EDSS $\beta = -0.44$, $p < 0.05$; participation $\beta = -0.30$, $p < 0.05$) but not with MCS. Only disease duration ($\beta = -0.33$, $p < 0.05$) was significantly associated with MCS. Social participation is associated with PCS, which highlights the importance of MS societies and a social network for the quality of life of patients with MS.

Contribution of social support to the quality of life of heart transplant recipients

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Background: With advanced medicine and pharmacology, post transplant quality of life (QOL) has become a major concern of researcher. Patient quality of life after heart (HTX) is usually described as good. It is, however, still a pending question as to which factors influence, and to what degree, the subjective perceptions of quality of life. There have been findings suggesting that a social support has a positive influence on quality of life after HTX. Aim: The purpose of this study was to 1) describe QOL and social support of HTX recipients and 2) examine the correlations between the types of social support and the QoL of these transplant recipients. **Methods:** Data were collected from 115 HTX recipients using the following instruments: World Health Organization Quality of Life Bref (WHOQOL Bref) and Berlin Social Support Scale (BSSS). Descriptive statistics, correlation, regression analyses were used. **Results:** The results revealed a positive correlation between perceived support (both emotional and instrumental), support seeking, actually provided support and QOL. A negative correlation was observed between years after HTX and seeking support. There were difference between marital status and actually provided support. Multiple regression revealed quality of life to be 39% predicted by social support. **Conclusions:** Social support explained QOL HTX recipients. Knowledge of relationship among social support and QOL can help to improve a social support in this group of patients.

A peer-support self-management programme for people following mental health crisis: Development of a trial intervention

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Background: A documented gap in support exists for mental health service-users post NHS crisis-service discharge. Peer-facilitated self-management programs (PFSMP) have scope to meet this need, but research is limited. The research aimed to utilise qualitative techniques to develop and implement a PFSMP. **Methods:** Multi-stage interview and focus group consultation were held with stakeholders including service-users, clinicians and carers for programme acceptability and feasibility. A subsequent pre-pilot, facilitated by trained peers ($n=4$), was conducted with service-users post discharge ($n=10$). **Results:** Analysis of the qualitative data at acceptability and feasibility stages produced three broad themes; philosophical underpinnings of the intervention, information content of the self-management tool, and implementation practicalities. Post pre-pilot, positive qualitative feedback from participants and peers was apparent, and design feedback was collated. **Discussion:** The positive feedback provides initial support for progression to the next

research phases; including an in train exploratory pilot, and a future RCT. Multi-stage multi-stakeholder qualitative consultation has proved a useful tool to assist design of real-world research.

Quality of life and social support in relation to trauma and posttraumatic stress disorder

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Studies conducted on convenience samples suggest the existence of an inverse relationship for quality of life and trauma exposure/posttraumatic stress disorder (PTSD). The same has been found for social support. It is unclear if these findings would apply (i) in an epidemiological sample, and (ii) to individuals with a current versus remitted diagnosis of PTSD. **Methods:** The present study reports data from a large community-based epidemiological catchment area in Montreal, Canada (N = 2399) broken down according to trauma exposure and PTSD diagnostic status. **Findings:** An inverse relationship of decreased quality of life with increased trauma exposure and PTSD diagnostic status was replicated within the study sample. Mean levels of social support were not significantly different between individuals with and without PTSD. **Discussion:** These results support generalizability of an association between PTSD and quality of life. Further analysis is needed to better understand the relationship between PTSD and social support.

Burnout syndrome and beliefs about gynecological cancer in health professionals

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This research aimed to investigate the prevalence of Burnout Syndrome (SB) and its association with beliefs about gynecological cancer in health professionals from Basic Health Units. Participants were 29 health workers who provide care to women's health in two public establishments in Porto Alegre, RS, Brazil. It was applied the Illness Perception Questionnaire for Healthy People (IPQRH) and the Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo (CESQT). The results show a prevalence of 13.8% with low Illusion Work, 27.6% of Wear Psychological, 4% of Indolence and none rated the dimension of Guilt. Relationship was found between the dimensions Wear Psychological and Indolence, and the diagnosis of SB with higher attribution of causes (in general and psychological) disease. These results should be considered in planning future interventions with these professionals, which promote improvements in their mental health and better care to patients.

Improving psychological health during chemotherapy treatment for cancer: Results of a randomized clinical trial

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Background: Automated monitoring of outpatient psychological distress during chemotherapy was evaluated to determine if it improved psychological outcomes. **Methods:** 358 chemotherapy

patients were randomized to Telephone Care (TC) (n=180) or usual care (UC) (n=178). Depressed mood, anxiety, trouble thinking, and appearance concerns were assessed for presence and severity (0-10 scale) through daily patient calls to the monitoring system. TC group symptom reports at 4 or greater were automatically transmitted to health providers who intensified symptom treatment by telephone using national guidelines. **Findings:** The average participant was White (83%), 56 years, female (75%) with breast cancer (44%). At moderate or greater severity, depressed mood was most prevalent (53%), then anxiety (51%), trouble thinking (50%), and appearance concerns (36%). Negative binomial regression demonstrated TC cut Moderate-Severe days by more than 50% for all symptoms ($p < .001$). **Discussion:** Utilizing automated monitoring and intensifying distress treatment significantly improves psychological health during cancer chemotherapy.

The predictive role of perceived pain unit quality environment on patients' perceived health and well-being

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Although studies show that perceived hospital quality environment predicts users' well-being (Devlin & Arneill, 2003), to the best of our knowledge, this relationship has never been explored in pain units. Thus, we aimed to examine the predictive role of perceived pain unit quality environment on patients' perceived health and well-being. 103 patients from two Pain Units in Lisbon answered a survey including the Perceived Hospital Quality Environment Indicators (Fornara et al., 2006), the short General Health Questionnaire (Laranjeira, 2008), measures of emotional state (Garcia-Márques, 2004) and perceived health and a pain severity VAS. The main results showed that better perceptions of: 1) service quietness predict better perceived health ($\beta=.24$, $p=.02$) and emotional state ($\beta=.23$, $p=.02$); 2) service spatial-physical comfort predict lower social dysfunction ($\beta=-.25$, $p=.01$); and 3) service view and lighting predicted lower psychological distress ($\beta=-.20$; $p=.05$). Practical implications for interventions in pain units environment will be discussed.

Impact of childhood experiences of bullying on humour use and other potentially resilient coping styles

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Background: Being bullied in childhood generally predicts poorer adult wellbeing. Humour styles predict wellbeing. Being bullied includes 'being laughed at' and 'a target of jokes'. Does being bullied affect adulthood coping, especially humour styles used? **Method:** 150 subjects, categorised as victim, bully, bully+victim, or no experience, completed qualitative and quantitative questionnaire items. Other variables were assessed. **Findings:** Qualitative: Experiences ranged from mild to severe, physical or verbal, as a bully or victim. Bullies often claimed to be only joking if challenged. **Quantitative:** Being physically bullied predicted more use of self-defeating humour. Being verbally bullied predicted less use of aggressive humour, whereas intensity of experience predicted more. Bullies+victims were highest users of aggressive humour. **Discussion:** Self-defeating humour, used defensively in childhood victims, continues into adulthood, as does aggressive humour in bully+victims. Humour styles are associated with wellbeing in adulthood, but there are implications for interventions recommending humour to deal with bullying.

Comparison of factors affecting happiness levels in Korean and Australian cohorts

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Background: The relationship between income and happiness is complex. We compared happiness and income levels in two diverse nationalities while controlling for other differences. **Methods:** Data were collected as part of an internet survey of 699 Australian and Korean participants. **Findings:** Australians were happier than Koreans and had a higher average income. There was some relationship between income and happiness in Australians, and there was a curvilinear relationship in Koreans. The highest Korean earners were also the happiest, but numbers were very small in this group. **Discussion:** We have demonstrated a relationship between income and happiness that varies according to nationality. These results indicate that goals for increasing happiness in order to enhance health and wellbeing need to take account of national differences, especially the importance placed on income in contributing to happiness. We suggest further differences, such as reference groups and support services, also affect the impact of income.

Pilot evaluation of an educational tool outlining disease risk and healthy guidelines

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Background: Chronic diseases can be etiologically complex with multiple risk factors that cluster in families, making this an important social context for intervention and disease prevention. **Method:** A Family Health Package (FHP) was designed as an educational tool outlining family health history based on heart disease, diabetes, breast and colorectal cancer. The current pilot aimed to assess the acceptability of the FHP, in addition to influences on diet and health-related behaviours within the family. **Findings:** The FHP design was refined in response to participant feedback. Thematic analysis of focus groups showed that participants discussed varying levels of control over heritable diseases, barriers and motivators for healthy behaviours, internal and external influences on family healthy behaviours. **Discussion:** The results provide us with an educational tool to be used in an intervention study assessing the utility of mothers using the FHP in the role of genetic health educators within the family network.

Necessary but not sufficient: Convergence of TPB constructs is a condition for drug use intention

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The theory of planned behavior postulates independent and linear relationships between three constructs (attitude[ATT], subjective norm[NS], perceived behavioural control[PBC]) and intention. However, when the distribution of intentions is bimodal (people will do or will not do), we hypothesized that a conditional model would better fit the data: the intention is positive on condition that the three constructs are both positive. We analysed data from a quantitative survey on

cannabis and cocaine (N=6126). ATT, CC and PBC were dichotomized and considered positive when the subject scored above the median. We compared subjects with 0, 1, 2, or 3 positive constructs. Results confirmed a conditional model: when the three constructs are positive, the percentage of intention to smoke cannabis rises to 43%, compared to less than 12% when two or less constructs are positive. Similar patterns are observed with cocaine. In some interventions, this conditional effect should be considered to impact intention.

Personality traits, perceived autonomy support and therapeutic adherence among hypertensive patients

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Up to 70% of hypertensive patients do not adhere to the medical recommendations. The aim of this study is to explore relationship between hypertensive patient personality traits, health care climate (specifically, perceived autonomy support), and the therapeutic adherence. To date (datas collection continues), 26 hypertensive patients (50% male/female - 55.23 y.o. [17.07]) completed the Health Climate Questionnaire (Williams et al., 1996), the Big Five Inventory (John et al. 1991), the Therapeutic Reactance Scale (Dowd et al., 1991), and the Generic Adherence Scale (Tarquinio & Muller, 2013). Preliminary results show high correlations between personality traits and adherence (e.g.: the extraversion / medication adherence correlation is $r=0,34$, while extraversion / dietary adherence correlation is $r=-0,31$). Health care climate is related with personality traits and only with medication adherence. Reactance is important to the tobacco consumption reduction. All the definitive results will be shown and discussed during the conference.

Appearance related negative feed-back, social acceptance and athletic competencies in early adolescence

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The research aims to investigate the relation between appearance negative feed-back, weight status, gender and perceived social acceptance and athletic competencies in early adolescence. A sample of 252 students (11 to 13 years old) filled out the Social acceptance and Athletic competencies subscales of Self Perception Profile for Children (Harter, 1982) and four questions derived from Perception of Teasing Scale (Thompson, Cattarin, Fowler & Fisher, 1995). Growth charts cut-off scores (CDC, 2000) were used to identify participants weight category after weight and high were measured. A significant main effect of appearance negative feed-back was found on both continuous variables. There was a significant interaction effect between gender, weight category and teasing on perceived social acceptance. Post hoc tests revealed differences in social acceptance across weight status for girls and across feed-back conditions for boys. Appearance related negative feed-back is a significant contributor to social acceptance and sport engagement.

Gender differences in self-concept related predictors of actual/ideal body image discrepancy

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The study aims to identify self-concept related predictors of the discrepancy between actual and ideal body image in early adolescence, by looking at body mass index, perceived attractiveness, academic, social and athletic competencies. 252 students (11-13 years old) completed the Self Perception Profile for Children (Harter, 1982) and Pictorial Body Image Scale (Collins, 1990). Growth charts cut-off scores (CDC, 2000) were used to identify participants weight category after weight and height were measured. Results revealed different patterns across gender such as girls that expressed the desire to change their body weight, registered lower scores in all measured variables compared to girls that were satisfied with their body weight. For boys, only perceived attractiveness and body mass index were significant predictors of actual/ideal discrepancy. The findings suggest that actual ideal discrepancy is a much more social phenomenon for girls compared to boys.

Motivation to change, psychological well-being and substance abuse in young people

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Background: Substance abuse is growing among adolescents and young people in Lithuania. The aim of this study is to examine links between motivation to change and psychological well-being in young people who abuse drugs. **Methods:** A cross-sectional design is being used to survey young people who abuse drugs. Special scales were created to measure socio-demographic characteristics and features of substance abuse. Measures is being used: Ryff's Scales of Well-Being, URICA Questionnaire and TCU Psychosocial Scales. **Results:** As review of the literature shows, it is expected that more severe form of drug abuse will be related with lower psychological well-being results and with higher motivation to change. **Discussion:** Results of this research will contribute to better understanding of psychological well-being and motivation to change in young drug abusers. Also it will help to create more effective motivational, intervention and prevention programs for young drug abusers.

Refining a SMS text message smoking cessation support system using multiple studies: The MiQuit intervention

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Background: Objective: to refine an individually tailored and automated text message smoking cessation support system for pregnant smokers (MiQuit) using the findings from development and piloting studies. **Methods:** Data from a pilot trial (N=207) and two qualitative studies (N=33)

were used to inform the refinement of a prototype intervention. Data included user preferences, cessation experiences, experience of intervention use and actual intervention use. **Results:** Five main intervention refinements and the findings that informed them will be described. Refinements include: 1) Collecting tailoring data by automated text message questions. 2) Facility for users to increase/decrease intensity of support. 3) Additional support tailored around quit date. 4) On-demand risk information by text message 5) Development of an on-demand QUIZ game as a distraction tool. **Discussion:** Using multiple data sources to inform intervention refinement can help accommodate user preferences, experiences and actual intervention use and avoid over-reliance on user preferences alone shaping refinement.

Quality of life in pregnant women: Influence of socio-demographic variables

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Background: Quality of life is important to all individuals, however with pregnant women it is even more so as pregnancy implies the need to adapt to physical and psychological changes. **Objectives:** The purpose of the study is to analyse the perception of quality of life among pregnant women due to socio-demographic variables. **Material and Methods:** This is a quantitative, descriptive, correlational study, consisting of a sample of 115 pregnant women with a gestational age of 28 weeks. The protocol used for collecting data was a questionnaire characterizing the sample demographically and the SF-36 scale (Ferreira, 2000). **Results:** Age, marital status and place of residences presented no influence on the quality of life, whereas pregnant women working in the tertiary sector presented a better quality of life than those who only completed high school. **Conclusions:** Health professionals should mobilize available resources so that the pregnancy experience and transition to motherhoods is rewarding and adapted.

Quality of life in the puerperae: Influence of family and socio-economic factors

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Background: The multiple changes that occur with the birth of a baby may significantly affect the quality of the puerperae. **Objectives:** The purpose of this study is to research the influence of socioeconomic variables and family functionality on quality of life. **Material and Methods:** This is a quantitative, descriptive, correlational study consisting of a sample of 121 participants at six weeks postpartum. The instrument used for data collection is a questionnaire that characterizes the sample according to family and socio-economic factors, the SF-36 scale (Ferreira, 2000) and the Family Apgar Scale (Azevedo & Matos, 1989). **Results:** The existence of significant statistical differences is verified between socio-economic level and the level of bodily pain, general health, vitality and overall quality of life. Family functionality was not found to influence the quality of life. **Conclusion:** Socio-economic difficulties influence the quality of life in a puerperae thus maternity protection policies should be more effective and efficient.

Adolescents and sexuality: Knowledge about family planning

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Background: Sex Education should contribute to an informed experience, more rewarding, more autonomous and more sexuality responsible. **Objective:** To determine the influence of sociodemographic variables and sexuality in the context of knowledge about family planning. **Method:** Observational study with 1216 adolescents aged 14-18 years, mean = 14.69 (SD = 0.836), 54.7% female, the 9th grade education. We used the scale of knowledge about family planning. **Results:** 25.3% of the adolescents are dating, 53.3% speak about sexuality with friends, 49.3% with their mother. 15.1% of boys and 10.5% of girls aged 10-18 years had sex, mean = 13.83 years old (SD = 1.508). Of these 19.0% did contraception, 62.8% used condom and 37.2% used pill. 19.2% of boys have weak knowledge about family planning, while 32.2% of girls have showed good knowledge; however 48.5% consider it important to use condoms. The age of initiation of sexual intercourse (15 years) influences knowledge about family planning ($X^2 = 7.967$, $p = 0.047$). **Conclusions:** The results point to the need for training intervention to improve adolescents' knowledge about family planning, especially in the age that they initiate sexual activity.

Compensatory beliefs among asthmatic smokers

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Background: Many people, who behave unhealthy yet value their health, experience cognitive dissonance (Festinger, 1957). Cognitive dissonance is an aversive state that motivates cognitive or behavioral actions to lower itself, and disengagement beliefs are one such attempt: it lowers the perception of the health risk, thus providing peace of mind while preserving the unhealthy behavior (Dijkstra, 2009). Disengagement beliefs were examined among smokers and non smokers who were either asthmatic or not, hypothesizing that smokers would exhibit a higher level of disengagement beliefs concerning smoking than non-smokers, and that asthmatic smokers would hold the highest level of disengagement beliefs and perceive their control over their illness lower than non-smoking asthmatics. **Methods:** Two-hundred adults, aged 18 and above, participated in the cross sectional Internet survey. Asthmatic people were recruited through Internet forums. Independent variables were smoking status and having (or not) asthma. Independent variables were compensatory beliefs on smoking and perceived control over asthma. **Results:** Disengagement beliefs were significantly more prevalent among smokers ($M=4.2$) than non-smokers ($M=3.4$). Moreover, a planned comparison uncovered an interaction between smoking status and illness status, so that smoking asthmatics held the highest level of compensatory beliefs regarding smoking. Asthmatic smokers also felt less control over their illness than non-smoking asthmatics. **Conclusions:** Disengagement beliefs acted in accordance to dissonance reduction predictions. Accordingly, dissonance interventions may posit a fruitful avenue in smoking cessation among asthmatic patients; quitting was not. This study shows that adherence to disengagement beliefs is a relevant individual difference.

Pilot evaluation of intervention to increase uptake of sexual health services

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Background: We developed an intervention, delivered via a website and app, to motivate young people to access sexual health services. This study aimed to pilot the evaluation design/measure, and to gather initial evidence of efficacy. **Methods:** A 2 (pre-post) x 2 (gender) design was used. 148 matched cases from 5 schools were obtained. Intended and self-reported access of services, and beliefs associated with access were measured. McNemar tests and MANOVA were performed. **Findings:** There was higher self-report access of services at T2 than at baseline for males ($p=0.017$), but not for females ($p=0.453$). There was a significant interaction effect between time and gender ($F[8, 131]=1.986$; $p=.053$; $\eta^2p=0.108$) with three groups of beliefs showing favourable increases for females but not for males. **Discussion:** A full evaluation trial is needed to draw conclusions about intervention efficacy and to understand the mechanisms of change. Improvements to statistical power and measure reliability are needed.

Development of a sex education lesson to increase risk and coping appraisals for chlamydia

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Background: The project aimed to develop a sex education lesson to increase condom use through changing chlamydia risk and coping appraisals. Research questions: What are the beliefs underlying chlamydia risk appraisals? Which Behavior Change Techniques (BCTs) should be incorporated? **Methods:** Intervention Mapping (IM), and Michie et al.'s 93-item BCT taxonomy were used. Development utilized multiple methods (i.e. interviews with 27 young people, literature reviews, desktop mapping process, piloting work). **Findings:** Qualitative work found that young people have unhelpful beliefs which may be leading them to underestimate the risk of chlamydia. Coping appraisals should be increased alongside risk appraisals to avoid interventions being counterproductive. Selected BCTs included 'Persuasive source', 'prompts and cues', 'salience of consequences' and 'demonstration of behavior' delivered via digital interactive materials. **Discussion:** This lesson could form an important part of a wider intervention to motivate protective sexual behaviour. Its efficacy is currently being evaluated.

Relationship between coping style with depression and anxiety in pregnancy

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Background: Treatment recommendations for pregnant women in the UK do not differentiate between those experiencing high anxiety rather than depression (NICE, 2008). Coping style may influence an individual's response to treatment options (Huizink, 2002). **Method:** Primiparous women completed the State-Trait Anxiety Inventory (STAI; measuring dispositional anxiety), Edinburgh Postnatal Depression Scale (EPDS; measuring antenatal depression), Wijma Delivery

Expectancy Questionnaire (WDEQ; measuring pregnancy-specific anxiety) and the Brief COPE (measures 14 coping styles). **Results:** STAI, EPDS and WDEQ scores all correlated with 'Positive reframing' ($r=-.281$, $-.233$ and $-.261$; $p<0.05$), EPDS scores correlated with 'Acceptance' ($r=-.288$; $p=0.01$) and 'Use of emotional support' ($r=-.243$, $p<0.05$), STAI scores correlated with 'Self-blame' ($r=.389$; $p<0.05$) and WDEQ scores correlated with 'Use of emotional support', 'Use of instrumental support' and 'Behavioural disengagement' ($r=-.251$, $-.272$ and $.235$; $p<0.05$). **Discussion:** Pregnant women display differential coping styles for feelings of depression and anxiety; which should be considered when tailoring treatment.

Parental cancer treatment: A risk for children's well-being?

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Objectives: The main purpose of this study was to gain deeper insight in the well-being of younger children having a parent with cancer and to identify the available resources both at the individual and at the family level. **Methods:** In a panel design 27 Swiss children aged 6 to 12 were interviewed three times using the Family System Test (FAST) in the course of one year after the first diagnosis. Children's behavior was assessed by parents using the SDQ. Severity of disease and kind of treatment were collected among the patient's doctors. **Findings:** Chemotherapy seems to be significantly related to children's conduct problems, whereas radiotherapy does not. Chemotherapy predicts family cohesion in conflict situations. **Discussion:** Results suggest that the kind of treatment acts as a mediator both on the children's as well as on the family level. Positive expectations about recovery or negative effects of the treatment are possible explanations.

Mother's caregiving and child's health

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The purpose of the investigation was to study how caregiving could influence on the child's health during his (her) first years of life. About 95% of newborn infants in Russia now have received the diagnoses from birth. These disorders are caused by mother's pathology during pregnancy. By the end of their first year about 40% of children and by the end of the second year about 60% of children recover. We used emotional intelligence assessment test and mother's attachment assessment test. 100 mothers with their 100 children of the first and second years were participants. The following two sets of procedures were used to carry out the aim of the study. The first set of procedures involved describing the distinct features concerning the health of the children in their first or second year of life. A comprehensive appraisal of the children's health was conducted based on health criteria (Golubeva e.a., 2002), information about which was received from the individual medical records of the children, aged up to two years. The second set of procedures was aimed at examining the psychological features of the mothers with children up to two years old and included the following procedures: a questionnaire evaluating the attitude of a mother toward a child during its first two years of life (Vereshagina & Nikolaeva, 2009) and the questionnaire to evaluate emotional intelligence (Lyusin, 2004). The most common diagnoses

given to children at birth were perinatal encephalopathy and motor disturbance syndrome. There is no difference between mothers of children in the first and second years of life with respect to levels of attachment: 54 percent of the mothers in each group have a low level of attachment, and 44 percent and 42 percent, respectively, have an average level. Only 2 percent and 4 percent of the mothers with children in the first and second years of life have a high level of attachment. No mothers were found to suffer from maternal deprivation. A positive prognosis in relation to the children's health during the first year of life depends on the level of a mother's acceptance of her child; the higher the rating on the acceptance–non-acceptance scale, the healthier the child. The probability of a child's recovery during the first two years of life cannot be predicted based on the mother's ratings for emotional intelligence.

How self-determined motivation, self control, and self-efficacy contribute to exercise continuation

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We investigated how self-determined motivation, self-control, and self-efficacy contribute to exercise continuation among sports club members. Participants were 240 sports club members, half of whom continued exercises regularly for at least 6 months, and half of whom were new members. All participants completed the first self-administered questionnaire, which utilized the self-determined motivation, self-control, and exercise self-efficacy scales. Only new members were administered the same questionnaire 3 months later. Scores for intrinsic regulation and exercise self-efficacy differed significantly between groups. Sixty-four new members dropped out by three months. At the first questionnaire, those who dropped out had significantly lower scores for exercise self-efficacy and intrinsic regulation, but a higher score in extrinsic regulation, compared to those who stayed for 3 months. Types of motivation for exercise and exercise self-efficacy could predict the likelihood for exercise continuation. Trainers and coaches should aim to encourage participants by providing motivation and self-efficacy.

The causal model of development of teamwork in Japanese care staff

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Objectives: The purpose of this study was to investigate the causal model of teamwork, as relationship between teamwork and burnout syndrome in Japanese care staff team, and to examine institutions type of differences. **Methods:** 376 care staffs (130 males, 244 females, aged 20-70) were asked to complete the questionnaire containing the measures of Team Mission scale and Shared Emotion Scale, Teamwork Measure and Japanese Maslach Burnout Inventory (MBI), institution type. The postulated model was examined using structural equation modeling procedures. **Results:** Analyses of the postulated model showed significantly effects on burnout syndrome ($\chi^2=1109.08$ □ $df=597$ □ $CFI=.94$ □ $TLI=.93$ □ $RMSEA=.050$). **Conclusions:** This study indicated that Teamwork model have effects on burnout syndrome, in particular, the facilities for person with a disability showed significantly effects tendency.

The personality hyper-compensatory resource and its manifestation in the individual's non-verbal behavior

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Background: The so called hyper-compensatory personality resource (A.Adler, L.Vygotsky, O. Orlov), which exists despite psychological problems or physical defects, is claimed to be evolutionary expedient, likely to determine subjective well-being and mental health and liable to non-verbal manifestation which makes its implicit diagnostics possible. **Method:** Three symptoms of the hyper-compensatory resource: positive attitude to oneself, others and the world at large; positive thinking and personality self-evolution in the direction from a “biological” individual to an agent of the self-initiated activities were assessed. Non-verbal communication was video-taped in “Talking through gestures interviews”. **Findings:** Non-verbal behavior, operationalized in terms of the “explicit communicative intention” (amiable facial expression, eye-contact, sign gestures) appeared to reflect the level of the hyper-compensatory resources attained. **Discussion:** The results open up new vistas for implicit personality assessment and help return non-verbal communication as an effective means of personality diagnostics to psychological research and practice.

Mapping health behaviors: Constructing and validating a health behavior taxonomy

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Research focus is gradually shifting from single to multiple Health Behaviors (HBs). The current research aimed to establish a taxonomy of HBs from lay perceptions. Study 1 created an exhaustive list of HBs, based on a literature review and reports from 70 laypersons and 30 health promoters. It resulted in a list of 66 HBs, subsequently reduced to 45 HBs, based on “importance” judgments elicited in another sample (n=268). A third study produced similarity data by applying a card sorting technique (n=374). Hierarchical analysis yielded a taxonomy with four main clusters: Risk Avoidance, Nutrition Behaviors, Health Routines and General Well-Being, divided into second-order sub-categories. The structure was replicated in an internet sample (n=500). These findings represent a model of lay perceptions about HBs that will be further investigated for underlying conceptual factors. Consequently, the model would be used to design cost-effective intervention programs, aimed to affect multiple HBs.

Health communication in relation to healthy eating among elderly

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Background: Targeted health communication in relation to food might improve knowledge and behaviour among elderly and thus promote healthy aging. **Aim:** To investigate knowledge and behaviour among homebound elderly regarding healthy eating. Further, to investigate which

sources of health information elderly have confidence in. **Method:** A questionnaire was distributed (n=255) in three cities in the central part of Sweden. **Results:** In total, 231 (91%) elderly participated. A majority (71%) were not aware of the recommendation concerning daily intake of fruit and vegetables and 69 percent had a daily consumption that did not reach the recommendation. The sources of information that the participants had highest confidence in were dietician (79%) and physicians (60%). Internet was rarely or never used (61%). **Conclusions:** A majority of the elderly were not aware of the current dietary recommendations regarding healthy eating. The sources of information they had highest confidence in were dieticians and physicians. Future studies should include dietitians and focus on development on relevant communication channels towards elderly in order to improve their knowledge and behaviour in relation to healthy eating.

The self-esteem, sexual life satisfaction and physic and social activity among elderly women

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This study explores social and physical activity of elderly women as the life quality important areas. Furthermore, the authors examined the self-esteem and sexual life satisfaction, which are significant life quality indicators. Considering social denying of sexual needs in elderly women, sexual life satisfaction seems to be especially important to explore. The study involved 127 women in the age over 50 (M=64). The study revealed statistically significant relations between social activity and self esteem indicators (global self-esteem, lovability, body appearance, moral self-approval) as well as sexual life satisfaction. The sexual life satisfaction is positively correlated also with lovability. The physic activity is correlated with social activity and body appearance. The study showed that social activity, physical activity and self-esteem are not differentiated by sociodemographic variables (marital status, household type, age, education). The study shows social activity great importance in building high quality of life.

Associations between frequency of laughter and diabetes mellitus among middle-aged Japanese men and women

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Background: We sought to examine associations between frequency of laughter and diabetes mellitus among community-dwelling Japanese men and women. **Methods:** A community-based cross-sectional and prospective study was undertaken using data collected from 4,780 (1,786 men and 2,994 women, mean 59 years) in cardiovascular risk surveys for 5 years. We evaluated frequency of loud laughter by a self-rated questionnaire. The odds ratios (ORs) of prevalence and incidence of diabetes mellitus relative to the “every day” laughter group were calculated using the logistic regression model. **Findings:** In cross-sectional analyses, the age, sex, and body mass index-adjusted OR (95%CI) of diabetes mellitus was 1.26 (0.97-1.65) for the “1-5 days/week” laughter group and 1.51 (1.08-2.11) for the “less than once a week” laughter group. In prospective analyses, similar trends were observed, although it did not reach statistical significance. **Discussion:** Frequency of loud laughter may be associated with diabetes mellitus among Japanese men and women.

Therapeutic education, illness perception, self-efficacy, treatment adherence and quality of life of type 2 diabetics

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Background: Leventhal (1983) proposed that the way patients perceive their own illness is an important determinant leading to the comprehension of their therapeutic adherence and quality of life (QoL). **Method:** This questionnaire-design study examined the relation between illness perception (IP), self-efficacy (SE), medication adherence (MA) to the diabetic regimen, and QoL in a sample of type 2 diabetics; as assessed by the IPQ, the GSES, the MMAS and the AD-QoL respectively. Participants (N= 49) were taken from a therapeutic-education center. **Finding:** Consistent with Leventhal's framework, results indicated through bivariate analyses that IP correlated with QoL ($r= 0.82$; $p<0.01$) and MA ($r= 0.72$; $p<0.01$). However, no significant correlation was found between IP and SE ($r= 0.11$; $p<0.01$); SE and MA ($r= 0.19$; $p<0.01$); and SE and QoL ($r= -0.17$; $p<0.01$). **Discussion:** Self-efficacy is important in sustaining therapeutic adherence. Implication for intervention at the healthcare center is providing self-efficacy workshops.

Relationships between familial variables and children's attitudes towards family meals

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Children's attitude towards nutrition and healthy eating behaviors are thought to be influenced by various familial variables including parents' attitudes towards health and family communication and connectedness. The purpose of this study was to explore relationships between familial variables and children's attitudes towards family meals. A survey was conducted with 148 children and their parents (75 5th graders and 71 6th graders; 68 boys and 78 girls) who were enrolled in a public elementary school in a suburban area of a local city of Japan. Children were asked to rate scales of awareness, positive outcome expectancies, and self-efficacy of balanced diet. Parents responded on scales of food availability, their own eating behaviors, and parental bonding. Correlational analyses revealed that children's awareness on balanced diet was related to their positive outcome expectancies and self-efficacy and food availability, parents' eating behaviors, and family communication over meals. It was concluded that interventions targeting families enhance children's healthy eating behaviors.

Impact of pain on the general functioning in fibromyalgia

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Many studies have shown the importance of psychological factors in chronic pain. These factors can influence physical functioning as well as treatment compliance. The objective of this study is to provide a global vision of the relationship between depression, anxiety, beliefs about pain and

pain in fibromyalgia. Two hundred forty seven fibromyalgia sufferers participated in the study. They completed the Brief Pain Inventory, the Beck Depression Inventory, the Beck Anxiety Inventory and the Pain Beliefs and Perception Inventory. Results showed an association between all these measures. Impact of pain on general functioning was predicted by pain intensity, pain beliefs, depression and anxiety. There was a mediating effect of depression, anxiety and pain beliefs on the relationship between pain intensity and impact of pain. These results suggest that depression, anxiety and cognitions are important factor influencing impact of pain in individuals suffering fibromyalgia. The study supports the importance of preventive strategies for fibromyalgia.

Social support and problematic internet use among university students in three EU countries: A longitudinal study.

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Background: The aim of the study was to explore the problematic internet use (PIU) among university students over a 1-year period, and the effect of country and social support (SS). **Methods:** 685 university students from Slovakia, Hungary and Lithuania participated in an online survey (SLiCE) providing information on PIU and SS at the baseline and at a one year follow-up. The data were analyzed using the GLM for repeated measures. **Findings:** There was not a main effect of time on PIU but there was a significant interaction effect of time*country*social support ($F=2.22$, $p=0.025$). Profile plots showed that an increase/decrease in SS over the year lowered/increased PIU more among Slovak students than it did among Hungarian and Lithuanian students. **Discussion:** The findings confirmed the importance of students' perception of the changes in social support during their study in relation to the prevention of PIU.

Received social support enables planning to perform post-rehabilitation physical activity: Findings from a clinical sample

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Background: Most rehabilitation patients are highly motivated to be physically active after rehabilitation, but often fail to do so. The present study examines the role of received social support in facilitating post-rehabilitation physical activity. **Methods:** In a prospective computer-based study, intentions were assessed at baseline ($N = 536$), planning at two-week follow-up ($n = 435$) and physical activity at eight-week follow-up ($n = 399$). A path analysis was conducted including intention, received support and planning to predict physical activity. Gender, patient type and baseline behavior served as covariates. **Findings:** Intention, social support and planning predicted physical activity after rehabilitation. Indirect effects from intention and social support to physical activity via planning were significant. **Discussion:** Among rehabilitation patients in the present sample received social support facilitated post-rehabilitation physical activity by stimulating the use of self-regulatory strategies such as planning. Thus, facilitating social support should be incorporated into the rehabilitation setting and in interventions to maximize health behavior change potentials.

Pain anxiety, pain medication concerns, and self-compassion as predictors of painkiller dependence among people with chronic pain

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Background: Evidence about influences on painkiller dependence is needed to inform initiatives to promote more effective use of painkillers by people with chronic pain. **Methods:** Questionnaire survey of 104 people with chronic pain conditions. In multiple regression analyses, measures of pain anxiety (PASS-20), concerns about pain medication (Pain Medication Attitudes Questionnaire) and self-compassion (Self-compassion Scale) were used to predict dependence on painkillers (Leeds Dependence Questionnaire). **Findings:** Fear-related pain anxiety (Beta=0.19, $p=0.017$), and concerns about needing pain medication (Beta=0.66, $p<0.001$) were both independently predictive, explaining 56% of the variance and accounting for (mediating) the influence of exceeding medication doses on painkiller dependence (Sobel = 3.59, $p<0.001$). **Discussion:** The findings could help identify people at risk of dependence on pain medication. More research is needed on painkiller dependence because of the potential impact that becoming dependent on painkillers can have for people with chronic painful conditions.

Gender differences in mental health and health related quality of life in Mexican MS caregivers

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Background: Multiple sclerosis (MS) rates in Latin America are increasing, and caregivers there experience reduced mental and physical health. Based on rigid gender roles in Latin America, women more often assume caregiving duties. **Methods:** This study examined gender differences in mental health (Patient Health Questionnaire-9, Satisfaction with Life Scale, Rosenberg Self-Esteem Scale, State-Trait Anxiety Inventory, Zarit Burden Inventory), health-related quality of life (Short Form-36), and social support (Interpersonal Support Evaluation List) in 81 (66.7% female) Mexican MS caregivers. **Findings:** MANOVAs demonstrated that females had lower mental health ($p=.006$), HRQOL ($p<.001$), and social support ($p<.001$). This was partially explained by female caregivers providing care for nearly twice as many hours/week as males (82.20 vs. 48.48, $p = .017$) and for nearly three times as many months (66.31 vs. 24.30, $p=.002$). **Discussion:** MS caregiver interventions—particularly for female caregivers—should address the influence of gender-role conformity on care and psychosocial functioning.

Physical activity of obese individuals: Testing the health action process approach

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Background: This study tested the applicability of the Health Action Process Approach (HAPA) for an obese sample in the context of physical activity (PA). **Methods:** PA was assessed along

with phase-specific self-efficacy, outcome expectancies, risk perception, intention, action planning, coping planning, and social support in a sample of 484 obese individuals. **Findings:** Applying structural equation modeling, the fit of the HAPA was satisfactory (CFI=.91; RMSEA=.06), explaining 31% of the variance in intention and 20% of the variance in PA. Motivational self-efficacy and outcome expectancies were related to intention. An association between maintenance self-efficacy and coping planning was found. Recovery self-efficacy and social support were associated with PA. No relationships were found between risk perception and intention and between planning and PA. **Discussion:** The HAPA was partly confirmed and, therefore, may constitute a theoretical backdrop for intervention designs to promote PA in obese individuals.

Beliefs about walking in fibromyalgia: An elicitation study from the theory of planned behavior

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Background: From TPB elicitation studies are recommended (Fishbein & Ajzen, 2010). Our aim is to identify modal beliefs related to a specific pattern of walking in people with Fibromyalgia. **Methods:** 46 women belonging to Fibromyalgia patients' associations completed a questionnaire following TPB suggestions. Content and frequency analysis were conducted (selected those beliefs with at least the 25% of sample). **Findings:** Negative consequences as increasing pain (n=31) and fatigue (n=29) were the most frequent but also positive consequences were reported. Doctors (n=29) and partners (n=28) were the most frequent "injunctive" referents; partners and friends (n=39 in both cases) were the most frequent "descriptive" referents. In relation to control beliefs, four inhibitors emerged (fatigue: n=30; pain: n=28; bad weather: n=26; negative emotional status: n=21). **Discussion:** Women report negative and positive consequences of walking. Partners are important referents for walking behavior. Control beliefs include mainly difficulties regarding aspects of chronic pain experience. Supported by Spanish Ministry of Economy and Competitiveness (Grant: PSI 2011-25132).

Do TPB constructs predict intention and walking behavior in Fibromyalgia women?

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Background: Constructs of the Theory of Planned Behavior (TPB) are good predictors of intention and walking behavior in general population, but nothing is known in chronic pain population as Fibromyalgia. Our aim is to test the relationships between constructs as a part of the formative research suggested by TPB. **Methods:** 46 women belonging to Fibromyalgia patients' associations completed a self-administered questionnaire. Two multiple regression analysis were conducted (FORWARD). **Findings:** Control perception ($\beta = .42$, $p = .005$) and Attitude ($\beta = .36$, $p = .01$) were significant predictors of Behavioral Intention (55% of explained variance) but only Pain intensity ($\beta = -.32$) was a significant predictor of previous behavior (14% explained variance). **Discussion:** the role of Control Perception and Attitude on Intention is consistent with previous results in general population. However, any TPB constructs predicted previous behavior showing the gap

intention-behavior in these people and suggesting applying volitional strategies as implementation intentions. Supported by Spanish Ministry of Economy and Competitiveness (Grant: PSI 2011-25132).

Coping with the problem of limited access to medical services by healthcare employees

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The aim of the study was to assess how employees of healthcare system cope with limited access to medical services, and what is their level of satisfaction of their children's treatment. There were 2 groups compared: healthcare employees (SZ:118) and control (OGOL:250). The study was based on the model of consumer behaviour (Engel-Kollat-Blackwell). The personality assessment tools were used and two other self-prepared tools. Advanced statistic analysis allowed to determine the frequency of behaviors, their predispositions and significant differences between groups. **Findings:** SZ often complains on the limited access to the specialists, formally and informally pays for their children treatment, postpones professional treatment and uses the domestic medicine instead. It is also more satisfied with the health condition of their children and with own impact on the decisions making in the therapeutic process. There were no significant differences in the level of satisfaction of the treatment between those groups of analyses.

The importance of sexual behavior motives for students' risky sexual behavior: Gender matters

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Students are one of the most problematic groups for risky sexual behavior in most countries including Lithuania. This study was intended to assess the importance of sexual behavior motives in prediction of student's risky sexual behavior taking into account their gender. A cross-sectional survey using self-report questionnaire (with motives for sex questionnaire, motivation for safer sexual behavior questionnaire, and sexual behavior questions) was carried out in 2012. The total sample included 319 students (123 male, 196 – female; mean age 20.41). The results showed that men sexual behavior was riskier than women. Gender differences were also found in motives and motivation for sexual behavior. Sexual experience was predicted by older age and higher pleasure motives for sex. Students' risky sexual behavior increased when student's self-enhancement, coping, affirmation, partner approval motives increased and student's intrinsic motivation decreased. Intimacy and peer approval motives were not related to risky sexual behavior.

Relations between physical activity and satisfaction with life in elderly

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The ageing of society is one of the most significant and discussed problems of 21st century all over the world. Therefore one of the main tasks for modern society is retaining good standard of

health and life satisfaction for elderly people. The aim of this study was to evaluate the relations between seniors' physical activity and satisfaction with life. 184 subjects, aged from 60 to 85, took part in the cross-sectional study using Rapid Assessment of Physical Activity (RAPA) questionnaire and the Satisfaction with life scale (SWLS). The results of the study showed that more physically active seniors are more satisfied with life. The elderly, who evaluate their health as 'good', are more physically active and more satisfied with life than those who describe their health as 'bad'. Seniors' age, gender, marital and employment status, education level are not related to the increase of physical activity or satisfaction with life.

Obesity social representations and proximity to the social object

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Social representations are social thought about social objects. They are guided by the proximity we have with this social object (Apostolidis & Dany, 2012). We hypothesized that social representations of "obesity" and "obese person" would be modulated by the proximity between participants and an overweight person. A quantitative study was conducted with 200 women. They performed a classic word association task with two stimuli words: "obesity" and "obese person". Results of the factorial Correspondence Analysis show a difference in the representational content between participants who know an overweight friend vs. an overweight family member. Participants who know an overweight friend describe "obese person" in a physical and esthetical way whereas people who know an overweight family member describe this stimulus in a medical way. Proximity's effect is relative. People's attitudes were guided by their consideration of obesity consideration: a disease obese people are responsible of.

Resilience as a mediator between perceived burden and quality of life among parents of children with a disability

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Background: The purpose of this study was to assess the perceived burden and quality of life (QoL) of parents of children with a disability, and to examine whether this association is mediated by parents' resilience characteristics. **Methods:** The sample comprised 90 parents. The assessment battery included the Impact on Family Scale (IOF), the quality of life instrument WHOQOL-Bref, and the Resilience Scale for Adults (RSA). **Findings:** Mothers reported lower Psychological QoL than fathers and higher levels of resilience, particularly family cohesion. No differences were found regarding the parental burden. Among mothers, the mediation models revealed that resilience factors mediated the association between perceived burden and Physical and Psychological QoL, while among fathers resilience mediated the association between burden and Physical and Social relationships. **Discussion:** Findings from this study emphasize the protective role of resilience and support the hypothesis of resilience as a mechanism through which parental burden impacts parent's QoL.

Influence of people with disabilities behavior during motivational interviewing sessions on increasing the output frequency

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Background: Motivational interviewing (MI) is a popular and widely studied intervention (Miller & Rollnick). Few studies have examined the impact of motivational interviewing on social participation, particularly on increasing outputs. **Method:** 59 people with motor disability and sensory were selected. We undertook an interview with each of them in order to collect sociodemographic informations. All the subjects were asked to complete questionnaires of accessibility, mobility, satisfaction urban development, depression and anxiety (HAD), motivation to engage in a process of behavior change (Prochaska & DiClemente). **Findings:** Results show greater trust in the fact of increasing the output frequency. We note an evolution in the stages of behavior change between T1 and T2. Subjects show a positive and significant increase in their desire to increase their output. **Discussion:** Subjects rate as more important the need to increase their mobility. MI has strengthened their confidence in change and has allowed them to move more into public places.

Review of the literature on measuring adherence to oral chemotherapy among cancer patients

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Since the 1990's, oral chemotherapy has been gaining ground in the field of cancer treatment. Treatment by this route seems to be less toxic and to offer the patient a better quality of life. However, in addition to the fears it might generate in the patient, oral treatment raises a new issue which, until now, has been marginal in this field: therapeutic observance. The literature review presented here, which deals with research on measuring adherence to oral chemotherapy among cancer patients between 1990 and 2011, points out considerable diversity across studies, in terms of both how observance is defined and how it is measured. This study also brings out various factors that affect adherence to antineoplastic drug treatment, including the patient's understanding of the treatment and ability to remember information provided by the physician, treatment length, and psychological distress. Our observations of the scarcity of studies on adherence to anticancer drug treatment raise some questions that should be pursued in future research on oral chemotherapy, now on the rise. It seems crucial to provide patients with a "therapy education" in order to help them and their support groups better understand the disease and its treatment and achieve optimal health management and improved treatment effectiveness.

Using the self-regulation model to explore psychological responses to genetic risk assessment

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Background: This study explored the predictive utility of the Self-Regulation Model (SRM) in explaining psychological responses to genetic risk assessment. **Methods:** Questionnaire data from

201 individuals undergoing cancer genetic risk assessment were analysed to explore associations between illness perceptions upon referral and psychological outcomes at follow-up. **Findings:** Illness perceptions explained 21.2% of the variance in distress, with strong beliefs about the consequences of being at risk uniquely contributing ($p < .01$). Following risk provision, participants reported less strong beliefs about the consequences of being at increased risk of cancer ($p < .05$), stronger beliefs in their ability to control their chances of developing cancer ($p < .05$), and greater understanding of the genetic risks of cancer ($p < .05$). Those at high risk reported greater understanding of their risk than those at average risk ($p = < .01$). **Discussion:** Understanding cognitive representations of being at genetic risk of cancer may be a useful tool for explaining psychological responses to information about genetic risk.

Multiple goal management and coping strategy selection: An interpretative phenomenological analysis of self-regulatory behaviour during fertility treatment

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Background: This phenomenological study investigated men's and women's self-regulatory experiences during fertility treatment, focusing on how and why they selected particular coping strategies in order to attain the multiple goals they identified. **Methods:** 14 semi-structured interviews with both members of three heterosexual couples with primary infertility, conducted over six months during in vitro fertilisation (IVF) treatment, and analysed using Interpretative Phenomenological Analysis (IPA). **Findings:** Participants attached varying importance to biological parenthood, and balanced the goal of achieving parenthood those of 'retaining emotional well-being', 'avoiding financial difficulties', and 'maintaining relationships'. The coping strategies they selected to achieve those goals were 'not dwelling on emotional issues', 'getting on with it', 'keeping busy', and 'minimising the time investment'. **Discussion:** Participants managed multiple goals during fertility treatment, knowledge of which made sense of the coping strategies they adopted, and provided insights into the complexity and rationality of self-regulatory behaviour during fertility treatment.

Perceived social support and motivation among institutionalized elderly in retirement homes: Influence of perceived social support on motivation

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Despite a widespread concern with institutionalized elderly people, very little is known about factors that may influence their motivation. In this research we linked four types of motivation which are intrinsic motivation, self determined extrinsic motivation, nonself determined extrinsic motivation and amotivation with perceived social support availability and satisfaction. Indeed, we questioned the fact whether this perception of social support could increase the elderly's motivation in retirement homes. Thus, we used two tools for data collection which are: the Elderly Motivation Scale and the Questionnaire of Perceived Social Support. This tools were administrated to 30 people aged from 79 to 100 years. Once data collected, we made simple linear regressions. We found a link between perceived social support availability and intrinsic motivation and a link between perceived social support satisfaction and self-determined extrinsic and intrinsic motivation. However, these results led us to question ourselves about the relevance of our model and thus to propose an other one more relevant.

An interview study on surgical patients' experiences of surgical complications

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Background: This study explored patients' experiences of surgical complications after major surgery. **Methods:** In depth semi-structured interviews were conducted with 17 patients who underwent major surgery and experienced complications of various severity levels. A two time-points design was used. **Findings:** Patients who experienced complications were affected not only physically but also emotionally. This was true for both minor and major complications with a long-lasting impact on patients' recovery. Anxiety, depression, frustration and anger were commonly reported by patients. These feelings often lasted for long periods of time. Patients' pre-operative expectations of their recovery, their perceptions of what caused the complications, the extend of the complications' impact on their lives, their coping strategies and their perceptions of support from family, friends and healthcare professionals emerged as important determinants of patients' well-being after complicated surgery. **Conclusions:** The implications of these findings are significant for patients' recovery and emotional well-being after major complicated surgery and highlight the role of health psychology in helping us understand patients' experiences of serious care-related adverse events.

Toxic leadership scale: A Romanian adaptation and validation

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The research goal was to achieve Romanian adaptation and validation of Toxic Leadership Scale (A. A. Schmidt, 2008), based on a model consisting of 5 dimensions: abusive supervision, authoritarian leadership, narcissism, self-promotion and unpredictability, plus sexual harassment. The results show a good level of Cronbach alpha reliability for each dimension (from 0.83 to 0.91) and for overall scale (0.95). Scores of each subscale and overall score were validated against the intention of changing the workplace and job satisfaction, measured on a 4-item scale. As for intention to change the job, all scales scores are higher for subjects who answered YES (Cohen's d effect size ranging from 0.38 to 0.44, which is low to medium), exception being sexual harassment dimension (d=0.08). Analyzing the relation between toxicity index and workplace satisfaction, we obtained negative correlations for all scales, values ranging from $r=-0.28$ (with sexual harassment) and $r=-0.38$ (with global index of toxicity).

Contribution of self-efficacy to adherence in asthma: The role of gender, age and psychiatric comorbidity

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Literature data in a wide array of psychosomatic conditions plead in favor of self-efficacy positively influencing adherence. This study aimed to evaluate the impact of self-efficacy on adherence in asthma, in relation to gender, age and psychiatric comorbidity. **Methods:** 40 patients

with persistent bronchial asthma (22♂,18♀)(mean age=58.47, SD=22.94) were assessed for self-efficacy (GSE Scale,1981), anxiety (ASQ,1982), depression (CES-D,1977) and adherence (MARS,2000). Hierarchical analysis of variance and Pearson tests were compiled to evaluate the amplitude of correlations and their significance (SPSS®). **Findings:** Self-efficacy was identified as the highest predictor of adherence ($p<.01$), especially at elders ($r=.76$, $p<.01$) and women ($r=.85$, $p<.01$). This remained significant when controlling for the presence of psychiatric comorbidity. There was an inverse relationship between self-efficacy and depression ($r=-.54$, $p<.01$) and anxiety ($r=-.52$, $p<.01$). **Discussion:** These results are in favor of interventions on self-efficacy, especially at women and elders, as a vehicle for both increasing adherence and decreasing psychiatric comorbidity.

Negativity bias and the vulnerability to emotional disorders in adolescents

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The tendency to preferentially attend to, learn and use the information encoded in negative stimuli (i.e. negativity bias) is known to play a major role in development and maintenance of emotional disorders, both anxiety and depression being associated with it in adults. The aim of our study is to investigate the negativity bias of adolescents in relation to their cognitive style and emotional symptomatology. Participants aged 13 to 16 years old (N=188) played a computer game which measured their ability to learn both positive and negative outcomes associated with novel stimuli, and completed self-report measures of emotional symptomatology and cognitive style (YSR - ASEBA, Achenbach, 2001; PANAS-C, Laurent et al., 1999; CATS, Hogendoorn et al., 2010). Poorer learning and greater asymmetry were associated with greater vulnerability for internalizing symptomatology and a negative cognitive style, suggesting that poor learning of positive stimuli may be a risk factor for emotional disorders development.

Do self-affirmation manipulations reduce self-directed negative emotion?

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Background: Self-affirmation manipulations have been shown to have a number of beneficial effects on health-related cognition and behaviour, but their effects on emotional well-being are poorly understood. The present research explored whether affirming the self alters emotion towards two broad self-domains. **Methods:** 56 participants (37 female, M age = 33.16, SD = 11.27) were randomised to either a kindness self-affirmation manipulation or a neutral control task. Participants completed measures of perceived threat and indices of emotion towards their physical appearance and behaviour. **Findings:** Affirmed individuals reported significantly lower levels of perceived threat and negative emotion towards their appearance than non-affirmed participants. The groups did not significantly differ on measures of affect towards their behaviour. **Discussion:** The findings suggest self-affirmation reduces negative emotion in an unrelated self-domain. This provides insight into self-affirmation mechanisms and suggests it may be a useful technique for increasing emotional well-being, by reducing particular self-directed negative emotions.

Positive work-home interference and its effects over psychosocial factors of working females in the university

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The purpose of this survey was to examine the positive relationship between working and home life and its effects over psychosocial factors in worker women's group from Andalusian Universities. The study consists of a sample of 388 women of two different working groups universities: teaching-researcher and administration-services personnel. It was used a questionnaire composed of several variables: demographic, work-home interaction, burnout, job satisfaction, health, well-being and social support. The results indicated that positive home-work interference (HWI) was higher than positive work-home interference (WHI). Correlation analysis shows that positive WHI presents significant correlations with job satisfaction ($r=.15$; $p=.011$), with well-being ($r=.14$; $p=.020$) and burnout ($r=-.15$; $p=.008$). On the other hand, HWI correlates with well-being ($r=.16$; $p=.007$) and in a negative way with burnout ($r=-.17$; $p=.003$). Concluding, there is a relation between work-home interference and psychosocial factors which may encourage action plan to improve the work-home balance for these women.

Well-being in university students: Flourishing and engagement as strategies against academic stress

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The "feel good" and "work effectively" combination can be considered the top of "subjective well-being" ("flourish"). Moreover, the academic engagement which is characterized by vigor, dedication and absorption, it has been linked to increased academic success and greater subjective well-being. The purpose of this research is to identify the role of Flourishing and Engagement in university students who face academic stress. The study involved 140 university students who completed the following scales: "The Abbreviate Utrecht Work Engagement Scale" (Schaufeli & Bakker, 2003), "The Modified Academic-Stress Inventory" (Pozo et al., 1994) and "The Flourishing Scale" (Melipillán, Ramírez, & Canales, in press). Statistical analysis performed highlights the positive relation between Flourishing and Engagement, and the negative relation of both with academic stress level. The Engagement, especially in vigor and absorption scales, as well as the overall score of Flourishing, they act as strategies that face stress situations in the academic field.

Benefits, barriers and self-efficacy for regular physical exercise in physiotherapy students

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Background: Future health workers should serve as role models in promoting physical activity. We investigated students' regularity of physical activity, physical exercise self-efficacy, perceived

benefits and barriers for regular physical activity. **Methods:** 180 physiotherapy students completed International Physical Activity Questionnaire (Craig et al, 2003), Exercise Benefits/Barriers Scale (Sechrist et al, 1985), Physical exercise self-efficacy scale (Schwartzter, 2009). **Findings:** On weekly basis, 61% students are vigorously, 23% moderately, 15% are low physically active. Males are significantly more active than females. The greatest perceived benefits were physical performance and psychological outlook. The greatest perceived barriers were family discouragement and physical exertion. Physical exercise self-efficacy was moderate, males having higher scores than females. **Discussion:** Most of the physiotherapy students are vigorously active, females being less active than males and having lower physical self-efficacy. Knowing individual and group difference in perceived benefits, barriers and self-efficacy can help in motivating students for increased physical activity.

The association of perceived autonomy support and mastery with self-management skills and perceived health of Dutch diabetes patients

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Background: The aim of this study was to assess the influence of diabetes patients' perceived autonomy support and mastery on their self-management skills and perceived health. **Methods:** A cross-sectional questionnaire survey was conducted among 5650 patients with (pre-)diabetes. Bivariate correlations were calculated and linear regression analyses with diabetes self-care activities and perceived general health as dependent variables were conducted. **Findings:** Participants had high scores on perceived autonomy support (4.1 (SD 0.8)) and reported rather positive scores on mastery and perceived health (3.7 (SD 0.9); 3.6 (SD 0.7)). Patients' perceived autonomy support ($r = .35$; $p < .001$) and mastery ($r = .48$; $p < .001$) were positively associated with their self-management skills. Mastery was the strongest positive correlate of perceived health ($\beta = 0.24$; $p < .001$). **Discussion:** Our results indicate the importance of perceived mastery in diabetes patients and the need for autonomy support to improve patients' self-management skills and perceived health.

Autonomous motivation and willingness to change behaviour: The role of compensatory health beliefs

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Background: Compensatory health beliefs (CHBs) are beliefs that an unhealthy behaviour can be compensated through another healthy behaviour. In line with the CHB-model we investigated whether individuals with an autonomous motivation (RAI-Index) to engage in stair use are less needed to activate CHBs to justify their sedentary behaviour compared with extrinsic motivated individuals. **Method:** Seventy-eight participants ($n = 69$ females; age: $M = 32.23$, $SD = 10.19$) filled out online questions about CHBs, motivation, and the willingness to use stairs. **Findings:** CHBs mediated the relationship between autonomous motivation and the willingness to use stairs ($\beta = .19$; $p < .05$, 95% CI from .08 to .30) whereby individuals with higher autonomous motivation had higher CHBs and subsequently a higher willingness to use stairs. **Discussion:** Contrary to our assumptions, autonomous motivation was positively associated with CHBs. Therefore, further research is needed to examine whether CHBs might boost health behaviour change processes.

Effectiveness of CBT-based rehabilitation for patients who are work-disabled due to back pain

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Background: This trial aimed to evaluate the effectiveness of a CBT programme for patients who are work-disabled due to back pain. **Methods:** Multi-centre randomised controlled trial (n=110). Adult patients with non-malignant back pain who showed elevated psychological risk factors for disability were eligible to take part. Screening measures included: roland morris disability questionnaire, fear avoidance beliefs questionnaire, fear & fatigue questionnaire, hospital anxiety and depression scale and the pain catastrophising scale. Following screening, patients were randomised to intervention condition (IC) or control condition (CC). Participants in IC received a maximum of 10 sessions of active rehabilitation. **Findings:** Patients in the IC had significantly lower disability ($F(2, 36) = 38.35, p < .05$) and fear avoidance beliefs ($F(2, 34) = 58.42, p < .05$) post intervention compared to CC. Qualitative data will also be discussed. **Discussion:** Results highlight the importance of psychological interventions in the management of chronic pain.

Couples' adjustment to breast cancer: A dyadic approach

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Background: Breast cancer occurrence leads to important repercussions on patients' lives but also on their romantic partners' and on the relationship. The aim of this cross-sectional study was to identify effects of dyadic coping on breast cancer patients and their partners' adjustment, in terms of quality of life (QoL) and post-traumatic growth (PTG). **Method:** 40 non-metastatic breast cancer patients and their partners completed a series of questionnaires assessing their dyadic coping, QoL and PTG. **Findings:** Dyadic analyses (APIM) showed actor and partner effects of dyadic coping on participants' adjustment. Results point a pattern of interdependence between couples' members, suggesting an influence of dyadic coping, not only at the individual but also at the dyadic level. **Discussion:** Overall, dyadic coping is a good predictor of breast cancer adjustment, directly or indirectly through the partner. This study emphasizes the need to focus on both partners to improve couples' dyadic care in the context of breast cancer.

Conservation resources theory, burnout and novice teachers

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Background: This study was built from the Conservation resources Theory (Hobfoll, 1989) to explain burnout as an individual and social resources depletion process. **Method:** Data were obtained from a questionnaire administered to 84 novice teachers at the beginning and at the end of the school year, for two years (five repeated measures). Data were explored by multi-level growth analyses. **Finding:** 1) Depersonalization and emotional exhaustion follow a steady upward

and linear curve over time, regardless of the subjects. 2) Variability in growth of emotional exhaustion depends on depletion of resources over time (self-efficacy and work climate) and on having a traditional style of teaching (job coping). 3) Variability in growth of depersonalization only depends of depletion of resources over time. 4) Problem-focused coping mediate the relationship between self-efficacy and depersonalization over time. **Discussion:** These results highlight the necessity of taking into account the way resources are perceived and used over time, for a better prevention of professional stress in novice teachers.

Quality of life and distress associated to organic disease: Difference between oncological and hemodialyzed patients.

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Hospital Psychology attend psychological problems of patients, who are hospitalized for an organic disease. In San Raffaele Hospital (Milan), psychologists are well established in the Oncology Department and Nephrology-Dialysis-Hypertension Operative Unit. The aim of this study is a comparison between general health and psychological distress in oncology and hemodialyzed patients. The sample is composed of 30 oncological patients, affected by pancreas-stomach-intestine cancer, and 31 hemodialyzed patients. They were evaluated by the Italian version of SF-36 and PDI. This study indicates a significant difference ($p < 0,001$) of the "Mental Health" Index between the two groups: oncological patients have a worse perception of quality of life than hemodialyzed patients. An additional significant difference ($p < 0,001$) concerns the psychological distress between the two groups: oncological patients manifest an higher psychological distress than hemodialyzed patients. These results suggest a better understanding of patient's feelings and a specific psychological intervention for both oncological and hemodialyzed patients.

Narcissism and attachment in internet addiction disorder

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Background: The research focuses on attachment and narcissism as constructs potentially implied in the risk in developing Internet addiction. **Method:** The questionnaire, composed of UADI (Use, Abuse and Internet Addiction), HSNS (Hypersensitive Narcissism Scale), ASQ (Attachment Style Questionnaire), and AAS (Admission Scales of Drug Addiction and APS (Potential Drug Addiction) of the MMPI-2, has been administered in a non-clinical sample of 343 individuals aged between 16-59 in the entire Italian country. **Results:** UADI significantly correlated with HSNS and anxious-ambivalent (concern about relations) and distancing attachment scales of the ASQ; correlations between UADI and the scale of substances addiction were not significant. **Discussion:** Subjects most at risk of internet addiction have higher scores in hypersensitive narcissism, confirming the Caplan's hypotheses on the Ego, perceived internet as an instrument that allows more control on anxiety and ambivalent feelings in attachment relationships. Addicted individuals are less unaware of pathological internet addiction.

Relation between side-effect of chemotherapy and health evaluation

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Background: Side effects (SE) of chemotherapy disturbs well being of patients ill with cancer. This study aims to disclose the impact of SE on self-rated health (SRH) and Quality of life (QoL). **Methods:** 62 patients undergoing hospital chemotherapy treatment were interviewed and filled in questionnaire of SRH and WHO QoL-Bref. 36 patients experienced SE and 26 did not. **Findings:** Patients with SE scored significantly lower on physical and psychological domain of QoL and on main components of SRH – emotional wellbeing and general health. **Discussion:** The study disclosed the impact of SE on SRH and QoL which may be of use for consulting health psychologists in the oncologic clinic.

Is it possible to have a best and quick integration of strengths by E.M.D.R.?

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Laizeau et al (2008), showed that optimism could be improved by an optimism protocol based upon attributional style theory and EMDR (Shapiro, 2001). Eye Movement Desensitization and Reprocessing is a comprehensive, integrative psychotherapy approach. McKelvey (2009) proposes to integrate positive psychology practice and EMDR. We verified scientifically the validity of “dusting off the strength” application: 60 subjects (30 males, 30 females) completed a pretest questionnaire regarding self esteem, optimism and subjective well-being measures and Via signature strengths questionnaire. Then, three conditions were monitored: Bilateral stimulation (from EMDR); By discussion on the strengths like Seligman uses to do; Reading characteristics of strengths. A post test questionnaire was completed and the 3 conditions compared. Results shows no significative difference between EMDR and discussion for all measures. In this case, there is no scientific proof that EMDR can improve significantly integration of strengths unlike McKelvey says.

Illness representation of women with breast cancer: Exploration of links with quality of life

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This study aims to examine illness representations of women with breast cancer and to explore their links with quality of life. 59 women with non-metastatic breast cancer completed the Illness Perception Questionnaire and the quality of life scale EORTC QLQ-C30 in a cross-sectional survey nested in a multi-centre cohort study. Principal Component Analysis and multiple regressions were performed (SPSS®18 software). The illness representation is composed of eight factors (internal and external controllability, consequences, temporality and optimism) including environmental, personal and natural causes. More the patients consider their illness due to persons, more their emotional state is weakened ($p < 0.05$). In contrast, attributing illness to environmental causes

is associated with a better global quality of life and better work aptitudes ($p < 0.05$). The links between lay etiologies and subjective experience of illness highlight the interest to consider implicit theories developed by patients, especially in caregivers-patients relation and psychological support.

Self-efficacy, action control, and social support explain physical activity changes among Costa Rican older adults

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Background: Previous findings show Self-efficacy as an important determinant of physical activity. Moreover, Action Control is considered to be a proximal predictor of health behavior. The contribution of Social Support in the process of health behavior change is being discussed. **Method:** To examine the relationship among these variables a longitudinal study with 54 older adults (≥ 50 years of age) was carried out. A moderated mediation analysis was done, where Action Control (T2) was specified as a mediator between Self-efficacy (T1) and Physical Activity (T2), and Social Support (T1) was specified as moderator between Self-efficacy and Action Control. **Findings:** The results provide evidence about Action Control as a proximal mediator, and Social Support as a compensator when levels of Self-efficacy are low. **Discussion:** Self-efficacy, Action Control, and Social Support explain Physical Activity Changes among Costa Rican Older Adults.

Perceived benefits of support groups for cancer victims and family members

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The last decades have shown a strong growth in the number of support groups for cancer victims and family members both in Norway and other countries. Systematic evaluations of the utility of these groups are, however, scarcely reported in the literature. The main aim was therefore to study the effects of group participation on cancer victims and partners/family members based on a literature study. **Findings:** The existing literature reports about extreme psychosocial strain of cancer victims and family members. Thus, such support groups may be an important contribution to the victims and their families. **Discussion:** Prospective, randomized studies as well as a few non-randomized studies of support groups of cancer victims and family members have shown that participation in such a group contributes to increased quality of life and increased coping ability. Such benefits are also reported to continue after a follow-up period of six months or more.

Acceptability of health care hazards in the general population and among physicians

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Background: The main objective of this study was to measure acceptability of healthcare-related hazards in the general population and in hospital and non-hospital physicians. The associated

objectives were to propose a conceptual framework, to build a measurement tool and to compare acceptability in the three populations. **Methods:** A national quantitative survey was performed on 1002 French subjects from the general population and 406 physicians (200 hospital doctors, 206 general practitioners). They were asked to comment diverse medical adverse events scenarios and to say to what extent each medical risk was acceptable to them. **Findings:** All adverse events scenarios were considered as generally poorly acceptable both in general population and physicians, but acceptability was higher in physician samples. Preventability, among all characteristics was the only one associated to lower acceptability. **Discussion:** Acceptability of risk is a notion which is determined by diverse psycho-sociological parameters. This study provides useful information for adapting priorities, communication and overall governance on patient safety.

Secondary trauma self-efficacy scale: Psychometric evaluation

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Background: The aim of our studies was to evaluate the psychometric properties of a new measure of self-efficacy, referring to coping with secondary trauma experiences - the Secondary Trauma Self-Efficacy (STSE) scale. **Methods:** Study 1 enrolled professionals (N = 247) providing trauma therapy for military clients in the U.S. Study 2 was conducted among health care and social workers (N = 306 at Time 1, N = 193 at Time 2) providing services for trauma survivors in Poland. **Findings:** The results of both studies indicated unidimensionality of the scale, its good reliability, good validity, and invariance across two language versions. As expected, STSE correlated highly or moderately with secondary traumatic stress. The associations between STSE and perceived social support, secondary traumatic growth, negative beliefs about the world and self were either moderate or low. **Discussion:** STSE may constitute a key protective resource promoting well-being among people working with trauma victims.

Quality of life after a myocardial infarction: A one-year follow-up of Colombian coronary disease patients

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The prevalence of coronary heart disease is rising in many developing countries. Little is known about quality of life (QOL) over time in Colombian patients suffering a myocardial infarction. The SF-36 was administered to 41 CHD patients admitted to a cardiovascular clinic at baseline, 6-months, and 1-year. There were increases in: (1) physical functioning and pain scores comparing all time points ($p < 0.01$); (2) physical role limitation, emotional role limitation, social functioning, and general health scores from baseline and 6 months to 1 year ($p < 0.05$); (3) vitality and mental health scores from baseline to 6 months ($p < 0.05$) only. While significant improvement between baseline and at least one subsequent time point was seen on each SF-36 subscale, gains were not consistently identified at all follow-ups. Future research should examine factors related to QOL in the socio-cultural context of Colombia and effective enhancement strategies for cardiac patients.

The psychiatric diagnostic screening questionnaire is an effective screening measure for co-morbidity within addiction services.

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Background: The purpose of the study was to evaluate the validity of the Psychiatric Diagnostic Screening Questionnaire (PDSQ) as a mental health screening measure within a substance using population. **Methods:** A sample of 33 male and female service users of an addiction treatment centre completed the PDSQ and other widely used assessment measures. The diagnostic performance of the PDSQ was assessed using receiver operating curve characteristic curve (ROC) analysis. **Findings:** The PDSQ subscales demonstrated good reliability in terms of internal consistency and inter-rater agreement. The PDSQ also demonstrated satisfactory overall sensitivity, specificity, and negative predictive values. Significantly, the PDSQ showed good diagnostic validity within this population. Sensitivity and specificity at certain cut-off points were reviewed and adjustments for optimal cut-off points were recommended. **Discussion:** The present study provides evidence that the PDSQ should be considered by health professionals working with substance misusing populations as an effective screening measure for mental health problems.

Post traumatic stress disorder associated to heart infarction

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Cardiovascular disease including acute myocardial infarction (IMA), are the major causes of mortality in the world. Infarction differs from others diseases by the abrupt following changes on patients daily life. Traumatic events can trigger physical and emotional reactions related to Post Traumatic Stress Disorder (PTSD). **Objective and Subjects:** to evaluate PTSD symptoms in 15 consecutive patients, both sex, that had IMA between two and seven past days. **Instruments:** demographic identification, Screen for Post traumatic stress symptoms (SPTSS) and Hospital Anxiety and Depression Scale (HAD), in two different times: two to seven days after IMA and, one month later. **Results:** Anxiety and depression are identified both measures, but are slightly increased in second time. 33% had symptoms consistent with PTSD at first measure. This result grows up to 60%, one month later. **Discussion:** there are prevalence of PTSD after IMA. This requires preventive psychological interventions as well health team comprehension.

Reassuming work after lung transplantation

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It's difficult to get back to work market after chronic disease diagnosis and surgical intervention. If it was required organ transplantation it's even worse due to physical, social and culture questions. **Objective:** to understand return or reintegration to work in lung transplant patients (LTP). **Subjects:** 24 patients, both sex, older than 18 years, transplantation for more than a year. **Instruments:** social demographic data (diagnosis, prior and current work, relationship between

work/illness/treatment). Three groups: A-working LTP, paid or volunteers; B-retired LTP (due to health or aging conditions); C-LTP who never worked. **Results:** A-they had some difficulties to get back to work, as many companies understand transplant as a factor to hinder performance and attendance of employee. However, self-esteem is higher. B-retirement brings comfort, financial stability, but it wasn't enough to some of them, lowering self esteem, although some of them performs household works that were not prior to transplant. C-patients that had never worked, the youngest group. They understand that health must come first instead of labor. Family supports financially them ever.

Daily life functioning of elderly couples: An investigation of the validity of ecological momentary assessment

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Background: The main objective of this study is to examine the validity of Ecological Momentary Assessment (EMA) in elderly persons with or without cognitive impairments and their spouses. **Methods:** The sample included sixty-three retired farmers (mean 76.7 years, SD 5.5) without or with cognitive impairment, recruited within a French cohort and their spouses (mean 73.5 years, SD 6.9). EMA procedures consisted of repeated phone interviews 5 times per day during 4 days for each spouse. **Findings:** The validity of EMA procedures is demonstrated by a 92.1% level of compliance, the absence of fatigue effects, and the lack of evidence for major reactivity to the methods. However, the specificity of our sample could explain the size, acceptance (42%) and response rates (75%) and could not permit to generalize our results. **Discussion:** The validation of such techniques may contribute to future research examining community-dwelling elderly individuals and their spouses.

Anxiety and quality of life (QOL) among hospitalised patients awaiting arthroplasty

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Background: Progressing joint's degeneration usually results in an impaired health related QOL, and higher anxiety, but little is known about their relationship. As preoperative anxiety is supposed to predict postoperative quality of recovery, the aim of the present study was to analyse the relationship between anxiety and QOL among patients awaiting total knee or hip arthroplasty (TKA or THA). **Method:** Patients (n=68, 34% of man) hospitalized for TKA (47,1%) or THA (52,9%) filled out Nottingham Health Profile, Visual Analogue Scale (VAS) for pain and preoperative anxiety and State-Trait Anxiety Scale along with basic socio-medical data survey. **Findings:** Preoperative anxiety level (as measured by VAS) was not related with pain, neither with QOL. State and trait anxiety however, was related with QOL, but only weakly with pain. **Discussion:** Preoperative measurement of anxiety on one scale only may be insufficient when addressing QOL problems among patients expecting TKA/THA.

Ancient roots of current health psychology still worth reading: P. Janet's contribution

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Aiming at a better understanding of the patient's adjustments, health psychology has developed several sociocognitive models; among these, the Transactional Model of Stress and Coping (Lazarus and Folkman, 1984), investigating health and risk behaviors has induced a great body of researches. Though French speaking research is significantly contributing to those international endeavors, some ancient pioneer works haven't been sufficiently appraised yet. In the 1920's, psychologist Pierre Janet, founder of the French Psychological Society, identified several sociodynamical health factors, within an action focused reference frame along quantity and quality axis. Two key concepts of Lazarus & Folkman's model could usefully be confronted to Janet's one: (1) the notion of "resources" leads to Janet's dynamic of "forces" impacting the patient's type of psycho-behavioral reaction; (2) the notion of "induced emotion" becomes Janet's "regulation of actions", challenging the causality usually ascribed to the patient's emotional response. These epistemological confrontations would certainly prove fruitful for current experimental research.

Theory of planned behaviour successfully predicts change in intention and gluten free diet adherence in coeliac disease

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Introduction: This study investigated whether changes in theory of planned behaviour (TPB) constructs could predict change in gluten free diet (GFD) adherence following participation in the Bread n' Butter...Gluten Free of Course! intervention. **Method:** 74 participants with coeliac disease completed the online intervention, with measures of GFD adherence and TPB constructs at baseline and immediate post-intervention. **Results:** Change in attitude, but not subjective norm or perceived behavioural control, accounted for 14% of the variance in change in intention ($p < 0.05$). Change in intention accounted for 10% of the variance in adherence change ($p < 0.05$). **Conclusions:** The TPB predicted a small but significant amount of variance in change in intention and adherence, challenging the emerging view that while the TPB reliably predicts behaviour it is less able to account for behaviour change. Differences in baseline intention and perceived risk may account for the discrepancy with previous findings.

Psychometric proprieties of well-being scales for Saudian adolescents: A preliminary validation

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Background: In health and positive psychology, scales measuring Optimism, Hope, Meaning of life and Subjective Vitality are rarely used in Arabic countries (Salama-Younes & Delle Fave, 2012). The aim of this study is to develop and valid such scales for Arabic adolescents. **Method:**

Using 'forward and backward' translation, experimental Arabic versions for the following 4 scales were created. The Hope Scale; the Meaning of Life Scale; the Life Orientation Test-Revised and the Subjective Vitality Scale. For that, 687 secondary school students ($M= 16.47$; $SD= 2.83$) have replied the scales. **Findings:** The goodness of fit indexes for HS and SVS were acceptable in terms of Khi^2/df ratio, NFI, GFI, CFI, RMR and RMSEA. The MLS and the LOT-R also showed an acceptable goodness of fit after modifications suggested by the CFA. **Discussion:** This study represents the early steps for preparing health psychological scales in this culture.

Factor Structure and correlation of MHC-SF and SWLS: Study from the Kingdom of Saudi Arabia

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Background: The concept like positive mental health and satisfaction with life are relatively recent for using in Arabic countries and more especially for adolescents (Salama-Younes & Delle Fave, 2012). The aim of this study is to test the factor structure and relationship between the two concepts with Arabic adolescents. **Method:** Using 'forward and backward' translation, the following 2 scales were created. The Mental Health Continuum-Short Form (14 item, MHC-SF) and the Satisfaction With Life Scale (5 item, SWLS). 653 secondary school students ($M= 16.22$; $SD= 2.35$) have replied the scales. **Findings:** The internal consistency of both scales has acceptable. The EFA and CFA confirming the structure of the 2 scales. The goodness of fit indexes were acceptable in terms of Khi^2/df ratio, NFI, GFI, CFI, RMR and RMSEA. Correlation is significant at 0.01. **Discussion:** This study represents the early steps for preparing health psychological scales in this culture.

Prevalence of low health literacy in Portugal

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Background/goals: Functional health literacy is associated with morbidity, poor adherence, and negative therapeutic outcomes. This study aimed to estimate the prevalence of low/inadequate functional health literacy in the Portuguese population. **Methods:** Cross-sectional observational study. Data collected through face-to-face administered questionnaires. Sampling followed a poli-ethapic probabilistic process, assuring a representative sample of 16-79 years-old Portuguese population. Instrument included the Newest Vital Sign (NVS), measuring health literacy. **Findings:** The overall sample includes 1624 persons. The overall prevalence of low/inadequate health literacy was 46,5% (no significant differences between genders). Significant association was found between health literacy and age groups, ranging from 28% (16-24 years-old) and 74,8% (65-79 years-old). **Conclusions:** This is the first study conducted in Portugal estimating the low/inadequate health literacy prevalence, revealing higher prevalence of low/inadequate health literacy than the ones found in other European countries where NVS was used. Health self-management programs should include the assessment of patient's health literacy for maximizing their effectiveness.

Sedentary behavior in connection with active participation in bullying and academic achievement

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Background: The aim of this study was to explore association between sedentary behavior and active participation in bullying among adolescents crude and adjusted to academic achievement. **Methods:** Sample of elementary school pupils from cross-sectional HBSC study in Slovakia (4610, mean age 13.68 years, 48.3% boys) and Czech Republic (4404, mean age 13.50 years, 48.5% boys) answered questions about sedentary behavior, bullying and school achievement. Dichotomized responses were used in logistic regression. **Results:** Logistic regression showed that sedentary behavior was associated with active participation in bullying among boys and girls in both countries. After adjustment for school achievement association between sedentary behavior and bullying decreased. **Conclusion:** High prevalence of sedentary behavior seems not to be single problem considering our results that suggest connection of this behavior with high probability of active participation in bullying and worse academic achievement. Therefore it should be signal for parents and teachers to monitor these issues.

Health psychology services and their diffusion in the hospitals in a region in North Italy

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One of the major application's areas of Health Psychology is the hospital environment, where the role of the psychologist has been evolving. The aim of this study is screening the Psychology Service in the hospitals in a region in the North Italy (Lombardia). The sample is composed of 117 hospitals in this region; the contact people of each hospital was interviewed through an half-structured questionnaire, ad hoc created. The results point out that 41% of the hospitals can count on a Health Mental Department that offer psychological interventions; 25,9% have a specific Psychology Service; 43,5% have psychologists in Neurology Department; 3 hospitals have an Emergency Psychology Service, and 68% of the hospitals have psychologists in other hospital department. The psychologists who are present in the monitored hospitals are 1184. These results show an increase in psychological activities in the hospitals in Lombardia and they contribute to plan improvements intervention projects.

The rule of the hospital psychologist in Lombardia: Main activities and intervention setting

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The integration of a psychologist in several Operative Units has introduced the need of supervising the development of the Hospital Psychology. The aim of this research is studying

how psychologists are allocated in the hospital departments and which clinical activities are carried out. The area of this research is Lombardia, a Northern Italy region. 117 Hospitals have been analyzed in this region, with an appropriate half-structured questionnaires. The results point out that the psychologists are particularly integrated in Rehabilitation (18%), Oncology (11,1%) and Medicine (9,8%) Departments. The main activities made by the psychologists are Diagnosis, Supportive Counselling to patients and their families; couple and systemic-relatives Psychotherapy are less common. The most used study's models of these psychologists are the Psychodynamic model (32,4%), followed by the Cognitive-Behavioural (26,9%). These results permit to make evaluations of the clinical resources that are available for patients, to improve the development of the lacking ones.

Quality of life and psychological issues of hemodialyzed patients

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End-stage renal disease (ERSD) is a clinical condition heading to an irreversible loss of renal function and leading patients to a lasting dependence on renal replacement therapy (dialysis) or transplantation. The collaboration between the Psychology Service and Nephrology-Dialysis-Hypertension Operative Unit of San Raffaele Hospital in Milan had the purpose of assessing some psychological conditions (QoL, depression anxiety, psychological distress) of nephropathic patients, as hemodialysis treatment compromises patient's emotional-physical integrity, work status, family and social roles. The sample is composed of 30 patients, evaluated by the following instruments: KDQOL-SF, BDI, STAI, PDI. In line with evidences already available in literature, this study points out that psycho-physical well-being of patients is significantly impaired by the impact of a renal disease, but that is significantly relieved by a social support too. The results enhance the importance of psychologists in a Nephrology Department and the need of supportive psychological interventions to the hemodialyzed patients.

How do you do it? Identifying methods for teaching people with intellectual disabilities sex education: A systematic review

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Sex education for people with intellectual disabilities (ID) is important. However our knowledge about effective methods for teaching sex education is limited. This study reports the results of a systematic review identifying useful methods for sex education for people with ID. Twenty papers were included based on two criteria: the topic was effectiveness of sex education programs and people with ID were the population under study. Some useful methods for improving knowledge, skills and attitudes were found and there are indications that maintenance of knowledge and skills is needed. One major problem with the papers was that detailed description of the program materials or the methods used in the program was lacking. Although there is some evidence for effective methods improving knowledge, attitudes and skills with regard to sex education, it is unclear which methods work under which conditions, due the lack of detailed descriptions.

Using email prompts to increase adherence to internet-delivered interventions: The effect of prompt content and timing

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Background: To test the effect of an email prompt content and timing on adherence to an Internet-delivered intervention. **Methods:** Participants received a prompt after two, four or six weeks, containing standard content either with or without a preview of new website content. Logistic regression analyses were conducted to determine effects on clicking on the URL and logging in. **Findings:** 53 participants clicked on the URL, 25 participants logged in to the program. An email prompt after two weeks resulted in more clicking on the URL compared to four (OR = 3.069, 95% CI = 1.392-6.765, $p < .05$) and six weeks (OR = 4.471, 95% CI = 1.909-10.471, $p < .05$). There was a significant difference with regard to log-ins between two and six weeks (OR = 16.356, 95% CI = 2.071-129.196, $p < .05$). **Discussion:** The key findings suggest prompt timing should be kept relatively short to boost adherence.

Education provisions for smoking cessation experts

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Background: To promote psychological counselling for smoking cessation, a postgraduate training concept was developed, which includes tobacco-symposia, "hands on" seminars, and a practical guidance in form of a manual. **Methods:** The participants ($n = 278$) of the first three symposia were asked to complete an online questionnaire. **Findings:** As the results show (response = 31.7%), most of the participants use the symposia for further education and 92% state to have their expectations met. Half of the respondents have the opportunity to put the information directly into practice. **Discussion:** As with other health professions, it is important for psychologists to have enough experts on smoking cessation available, in order to provide ideal opportunities for affected people within the framework of interdisciplinary offers to provide ideal conditions to achieve tobacco abstinence.

Patients' evolution on the emotional dimension during music therapy sessions in psychiatric rehabilitation

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Throughout our practice as a psychologist and psychotherapist in a long term care psychiatric hospital, we undertook thorough studies on patients' emotional states during music therapeutic treatment. According to the criteria of patients' primary diagnosis, we selected one sub-group of psychotic patients (schizophrenia, mood disorders, $N = 22$) and one of addictive disorders (alcohol dependence, $N = 10$). For both groups, we developed quantitative studies, highlighting the patient's mental evolution during weekly music therapy sessions of one hour (for 6-24 month).

We choose usual psychometric tools for assessment, e.g. self-evaluative questionnaires focused on multidimensional well-being (MDBF) and on anxiety and depression (HADS). They were applied during the initial (pre-test) and terminal stage (post-test) of music therapeutic interventions. The construction of new observational frames will facilitate the patient's identification during the therapeutic process. Finally, we documented important mood changes in patients' emotional experience. Results are contributing to specific program development, improving mental health.

Sense of coherence among religious and non-religious students from Germany and Poland

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This study attempted to examine the level of sense of coherence (SOC) in a sample of religious and non-religious students from Germany and Poland. The sample consisted of 1623 German and 643 Polish religious (N=1372) and non-religious (N=893) students. Protestants N= 493, Catholics N=737 and Buddhists N=142. The sense of coherence was assessed on Orientation to Life Questionnaire 29Items (Antonovsky). The strength of religious devotion was evaluated on Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccaccini). In order to value organisational and non-organisational religious activities Duke religion index was employed (Koenig et al.). Coping and resistance resources was assessed on Perceived Stress Scale (PSS 10Item, Cohen) and General Self-Efficacy Scale (Schwarzer & Jerusalem). Socio-demographic factors was taken into consideration. Results show that high faith students enjoyed better SOC, self-efficacy and perceived less stress than the low faith students.

Post-traumatic growth as a trigger for social identification: A longitudinal study on liver transplant patients

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Coherently with the recent literature on social identification and health (Haslam et al., 2009), the aim of the present study was to verify the nature of the relationship between the post-traumatic growth and the social identification. A longitudinal study was conducted with a group of 170 liver transplant patients. Data were collected by means of a written questionnaire, at two time points (T1 and T2) that were 24 months apart. The questionnaire was composed by the Post-traumatic Growth Inventory (Tedeschi, Calhoun, 2004), and by the Family In-group identification scale (Doosje, Ellemers, and Spears, 1995). We tested a cross-lagged model including PTG T1 and T2, and family identification T1 and T2, using structural equation modelling. This revealed an excellent fit of the model: $\chi^2(1) = .91$, ns; CFI = 1.00; RMSEA = .00, and confirmed that PTG exerted a significant effect on family identification over time but not vice-versa.

Are self-regulation skills and depressive symptoms predicting reduce in alcohol use among university students?

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Self-regulation may play a role in adaptive behavioral change. The purpose of this prospective, cohort study was to test whether self-regulation skills and depressive symptoms predict the change in alcohol use among students. At baseline 2690 university freshmen students from Slovakia, Lithuania and Hungary were assessed and reassessed 12 months later. Follow up rate is 25% resulting in 670 final sample size (23.3% males). We administrated AUDIT, The Short Self-Regulation Questionnaire and Modified Beck Depression Inventory at baseline and follow up. Hierarchical linear regression was performed to assess the relationship between self-regulation (Time 2), depressive symptoms (Time 2) and changes in alcohol use. After controlling by gender, country and AUDIT score (Time 1) we found that male students were more likely to reduce their consumption in comparison to female students ($p < 0.05$). The self-regulation was associated with reduction of AUDIT score ($p < 0.001$). This study confirmed a positive role of self-regulation skills in adaptive behavioral change.

Adults' experience of irreversible vision loss and its relationship with depression: A mixed-methods pilot study

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Background: The primary goal of this study was to provide new insights into the adults' experience of vision loss and its relationship with depression. **Methods:** A mixed-methods study with a convergent parallel design was adopted. Sample was composed by 38 adults at rehabilitation setting. The experience of vision loss was assessed by means of audio-taped semi-structured interviews and Bardin's thematic analysis was adopted. Depression levels were assessed by means of CES-D. **Results:** Four core themes on the experience of vision loss were found: self-awareness of impairment; self-identifications with the impairment; perceived social support; perceived well-being. 39.5% of patients met CES-D's criteria for depression. Higher depressive levels ($p < .05$) were found in patients with: greater self-awareness of impairment; inadequate social support; longer rehabilitation time. **Discussion:** Findings draw attention to patients' self-related variables and social support and raise the hypothesis of depression following vision loss being related to patients' emotional experiences of impairment.

Experience of lower limb amputation in adulthood and depression: A mixed-methods pilot study

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Background: The primary goal of this study was to provide new insights into the adults' experience of amputation and its relationship with depression. **Methods:** A mixed-methods study with a convergent parallel design. Sample was composed by 42 adults with lower limb

amputation. The experience of amputation was assessed by means of audio-taped semi-structured interviews and Bardin's thematic analysis. CES-D was used to assess depression. **Results:** Five themes emerged from interviews: reactions and feelings about amputation; changes in own life; relation with prosthesis and rehabilitation; self-perceptions; perceived well-being and social support. 31% of patients were depressed. Higher depressive levels ($p < .05$) were found in patients with: greater self-awareness of impairment; lower self-identification with the impairment; poorer perception of well-being and social support. **Discussion:** Personal dimensions at stake in the experience of amputation are beyond body image and it is raised the hypothesis of depression being part of the emotional experience of impairment.

Do implicit attitudes predict smoking after controlling for intentions, self-efficacy, and explicit attitudes? A meta-analysis

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The predictive validity of implicit attitudes typically is assessed by the increment in variance explained by implicit attitudes after explicit attitudes have been taken into account. However, it is not yet clear whether implicit attitudes capture additional variance after intention and self-efficacy are also controlled. The present study used meta-analysis to estimate the increment in variance attributable to implicit attitudes for smoking behaviour. Literature searches located 80 studies that contained $k = 254$ correlations between smoking cognitions and behavior. Average correlations between smoking and intention ($r = .53$), self-efficacy ($r = .46$), and implicit attitudes ($r = .25$) were similar to those observed in previous reviews. Regression analyses indicated that intention, self-efficacy, and explicit attitude explained 36.1% of the variance in smoking. Implicit attitudes explained an increment of 3.3% in the variance. Thus, implicit attitudes contribute meaningful additional variance even after controlling for established predictors of smoking behaviour.

Monitoring processing style and pre-surgical distress predict reported neuropathic pain in women with breast cancer

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Background: Pain is a commonly-reported symptom following surgery that is more likely to occur in individuals distressed prior to surgery. Moreover, monitoring processing style has been associated with reporting of somatic symptoms, but not specifically pain. The aim of this clinical study was to investigate whether pre-surgical distress and monitoring processing style predicted post-surgical pain in women undergoing breast surgery. **Methods:** Women scheduled to undergo breast cancer surgery ($N = 104$) completed pre-surgical assessments of cancer-specific and generalised-distress, and monitoring style. Self-reported neuropathic pain was assessed at 3-months post-surgery. **Findings:** Post-surgical mean neuropathic pain was 19.33 (low to moderate pain). Backwards linear regression indicated that greater cancer-specific distress ($p = .01$) and higher monitoring scores ($p = .02$), as well as younger age ($p < .0001$) were predictive of post-surgical pain. **Discussion:** Since the reduction of post-surgical pain is a key goal of healthcare, attention should be given to alleviating pre-surgical cancer-specific distress, particularly for high monitoring individuals.

Development of an exercise behavior model based on HAPA for university students

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The purpose of this study was to develop an exercise behavior model based on Health Action Process Approach (HAPA) that can be used to predict exercise behavior in Japanese university students. The 465 Japanese university students were asked to answer a questionnaire, which was composed of socio-demographic backgrounds, Self-efficacy, Outcome Expectancy, Risk Perception, Intention, Planning, and Exercise Behavior that consisted of the Japanese translated version of HAPA model items and some additional question items developed for Japanese university students in particular. Exploratory factor analyses, reliability analyses, confirmatory factor analyses and covariance structure analyses were performed. The results of exploratory factor analyses and reliability analyses and confirmatory factor analyses showed that each of the five scales had one factor structure and acceptable structural validities and reliabilities. Covariance structure analyses found that the exercise behavior model was an acceptable model and can be used to predict Japanese university students' exercise behavior.

Gender differences in cancer patients' quality of life, perceived social support, anxiety and depression

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Although cancer is known to have a negative impact on several aspects of a patients' life, its impact on men's vs. women's psychological well-being is unclear. The present study aims to examine if the cancer experience is perceived differently between the genders. A non-randomized cross-sectional design was used. Cypriot outpatients (N=447) and inpatients (N=45) with any type of cancer diagnosis completed the Psychological Screen for Cancer (PSCAN) questionnaire. The results show that outpatient men have lower anxiety and depression levels compared to outpatient women while they do not differ on perceived social support and quality of life. In contrast, inpatient men and women differ only on perceived social support levels, with men reporting higher perceived social support than women. These results indicate that cancer may influence differently men and women and also outpatients and inpatients. Further research is needed so that intervention programs, customized to patients' needs, could be developed.

Evaluation of an online bowel symptom checker on people who currently have bowel problems

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Although bowel cancer is a major health problem, the majority of people with bowel symptoms do not have cancer. This study aimed to evaluate the impact of an online bowel symptom checker which directs people to take the most appropriate action. People with any bowel problems

(N=236) completed one questionnaire before using the symptom checker, the next day and 4 weeks later. The questions were about bowel cancer key symptoms, perceived vulnerability, anxiety and perceived self-efficacy for dealing with bowel problems. The symptom checker increased people's awareness about the key symptoms and perceived self-efficacy for dealing with bowel problems and decreased slightly their perceived vulnerability. People's anxiety levels were not affected. These variables did not explain adherence to the advice given regarding visiting the GP or self-treat. The checker increased people's self-efficacy regarding treating their symptoms. Future research should investigate the longer-term impact of the symptom checker on help-seeking behaviour.

Depressive symptoms and sense of Coherence in Roma and non-Roma coronary heart disease patients

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Background: This study aimed to assess differences in the severity of depressive symptoms and sense of coherence (SOC) between Roma and non-Roma coronary heart disease (CHD) patients, crude and adjusted for age, gender, functional and socioeconomic status (SES). **Methods:** We examined 607 CHD patients (mean age 58.0±7.4, 28.7% female), 98 (16.1%) of whom were Roma. Depressive symptoms were measured using the Hospital Anxiety and Depression Scale and SOC using the 13-item Orientation to Life Questionnaire. Data were analysed using hierarchical regression. **Findings:** Roma ethnicity was associated with more depressive symptoms (B=1.06; [95%-confidence interval (CI) =0.12; 2.00]) when adjusted for age, gender, functional status and SES. Additionally, Roma ethnicity was associated with lower SOC (B=-4.77; [95%-CI=-7.85; -1.68]) when adjusted for age, gender and functional status, but after adjustment for SES, this association disappeared. **Discussion:** Roma CHD patients have more depressive symptoms and lower SOC and thus require additional attention.

Treatment adherence in women with obesity: Is it related to quality of life and well-being?

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Background: This study aimed to analyze if there is an association between treatment adherence, quality of life and well-being in women with obesity. **Methods:** A cohort of 72 women, aged between 21 and 68 years (M=42.39; SD=9.92), with a body mass index between 30.8 and 57 (M=41.56; SD=6.9) participated in this transversal study, answering to the General Well-Being Scale, SF-36 and to Treatment Adherence Scale, in the context of a personal interview. **Findings:** Data analysis revealed that treatment adherence in women with obesity is not significantly related to their physical-functioning, general-health, role-physical, role-emotional, vitality, social-functioning, and mental-health, although there is a weak association between adherence, health-transition ($r=-.25$; $p<.05$) and bodily-pain ($r=.28$; $p<.05$). Treatment adherence also showed not to be significantly related to well-being. **Discussion:** The study suggests that higher treatment adherence is not necessarily associated to higher quality of life and well-being - important information for obesity treatment multidisciplinary teams.

Gender issues: Current practices and challenges

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Background: Gender issues play a central role in modern societies. Research showed that there are several misinformations in this area. This study aims to characterize the population that uses an information center in northern Portugal. **Methodology:** 98 women (M=40.1, SD=9.7) and 80 men (M=41.3, SD=8.5) answered a demographic questionnaire and a Gender Information questionnaire. **Results:** 88% of women and 10% of men reported that have suffer gender negative discrimination. 75% of women and 13% of men referred being the principal caregiver of their children. 81% and 17% of women and men respectively reported several difficulties in conciliate personal and professional tasks and poor knowledge related to their rights. **Conclusion:** These data suggests several gender differences where women reported more discrimination and conciliation difficulties. Accordingly, it is necessary to promote a new awareness about equal gender and conciliation strategies.

Psychiatric symptoms during antiviral therapy for chronic hepatitis C: A retrospective study on 590 subjects

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Background: Chronic Hepatitis C (CHC) affects 3% of worldwide population and its treatment (Peg-IFN α and Ribavirin) may favor development of psychiatric symptoms (PS), a possible treatment contraindication. We investigate the prevalence of mental disorders (MD) history and the development of PS during treatment. **Methods:** retrospective evaluations of 590 patients treated, from 2005 to 2011, in a hepatology center with a psychiatric and psychological counseling. **Results:** men=53.6%, median age=56 years (19-77). A MD history was present in 22.4%. Overall, 48.8% developed: irritability (26.6%), sleep disorders (19%), depression (17.7%), anxiety (10.9%), neurocognitive dysfunctions (6%) and others (4.2%). Patients who ended therapy were 94.6%, only 5.4% dropped-out: 1.7% for PS (1% with MD history and 0.7% not). **Conclusions:** MD affect a large proportion of CHC patients. PS develop in about half of patients, but the drop-outs rates are low. Psychiatric and psychological counseling represent an essential resource for the treatment of HCV disease.

Relation between expectations about alcohol use and motivation to refuse alcohol of alcohol addicted adults

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Alcohol dependence – a widely spread phenomenon in most countries including Lithuania. The aim of this study is to review previous studies in expectations of alcohol consumption and

consequences of it in relation with motivation to refuse drinking. The systematic scientific literature analysis was used to identify the relationship between the main variables of this research. The results showed that positive expectations of alcohol use and consequences are related to lower level of motivation to refuse alcohol consumption. However, the negative alcohol consumption and consequences expectations are associated with a higher level of motivation to stop drinking alcohol. It was also found that replacement of the positive expectations of alcohol use into negative expectations increases the negative personal awareness of alcohol-related harm, which helps to control and to reduce alcohol consumption and enhances internal motivation to give up drinking.

Health beliefs and health behavior of university students

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The aim of our study is to analyse health beliefs of university students and to find how these beliefs influence forms of students' health behavior. Research sample: N = 1617 university students, ♀ 1241 (76,7%), ♂ 376 (23,3%), average age 22,4 (sd=2.5). **Methods:** Health behavior scale (Dosedlová, Slováčková, Klimusová, 2010), (Health Orientation Scale, Snell, 1997). **Findings:** Students are convinced that they are able to influence their health status and are perceptive to their body and changes in health status. They are not worried about their health. No significant gender differences were found. From health behavior factors are related to health beliefs particularly physical activity, mental hygiene and prevention.

Cancer caregiving: The mediating role of self-efficacy on bereaved carers' perceptions of social support

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Background: Caring for someone with terminal cancer results in both feelings of reward and burden. Moreover, social support and self-efficacy have been shown to influence the caregiving experience. This study investigated whether the effect of bereaved carers' perceptions of social support on their feelings of reward and objective burden is mediated by their caregiving self-efficacy. **Methods:** Bereaved carers (N = 51) of cancer sufferers completed measures of social support, caregiving self-efficacy, reward and objective burden, and provided demographic and medical care characteristics. **Findings:** Regression analyses confirmed that higher levels of social support were associated with greater perceptions of reward and lower burden. Bootstrapping mediation analyses indicated that self-efficacy fully mediated the effect of social support on objective burden, but not on reward. **Discussion:** These findings suggest that by increasing caregiving self-efficacy, the benefits of social support may be maximised and carers' feelings of objective burden decreased.

Predicting physical exercise in cardiac rehabilitation: The role of general self-efficacy

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Background: Studies of self-efficacy as an antecedent of exercise behaviour among individuals involved in cardiac rehabilitation found controversial results. The purpose of this study was to investigate the role of self-efficacy as an antecedent of cardiac rehabilitation outcome. **Methods:** This study involved 59 patients (71% males, mean aged 68 ± 10 years) in cardiac rehabilitation. At baseline, participants completed Perceived Health Competence Scale and Hospital Anxiety Depression Scale. The Six-Minute Walking Test (6MWT) was also used to detect changes following CR intervention to improve exercise tolerance. **Results:** Independent of gender, type of cardiac disease, level of anxiety and depression, age and self-efficacy together explained 25% of variability of improvement in exercise tolerance (Adjusted $R^2 = .25$, model $F = 4.18$, $p = .004$). Younger age ($\beta = -.48$, $p = .001$) and higher general self-efficacy ($\beta = .30$, $p = .03$) measured at baseline predicted improvement in the 6 MWT performance achieved after completing the CR program. **Conclusions:** This study supports self-efficacy theory providing evidence that CR participants' self-efficacy cognitions influence physical activity outcomes. Thus, it is crucial to use self-efficacy theory as part of the basis for guiding the systematic development of CR programmes.

Systematic development of a persuasive smartphone-game intervention targeting overweight-related behaviors among secondary vocational education students

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Background: The present paper describes the design rationale of a persuasive Smartphone-game intervention targeting overweight related behaviors (dietary intake and physical activity) among secondary vocational educational students (Dutch: 'MBO-leerlingen'). **Method:** Following Intervention Mapping, program objectives and determinants were defined, derived from self-regulation theory and empirical evidence. Objectives were matched with behavior change techniques and translated into design requirements. **Results:** Performance objectives related to goal setting, monitoring, and evaluation. Targeted determinants were: knowledge, risk perception, awareness, attitude, self-efficacy, skills, and environmental influences. Accordingly, behavior change techniques (e.g. tailoring, transportation, goal setting, self-monitoring, commitment, guided practice, feedback & reinforcement) were matched with the objectives and translated into a persuasive game concept. **Discussion:** To increase transparency of intervention development, clarity is needed on the underlying goals and mechanisms of interventions. This study is an attempt to gain further understanding of the possibilities and challenges related to persuasive (Smartphone) games.

Exploring the interplay of subjective age and health dimensions in the second half of life

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Background: Numerous studies emphasize a stable relationship between subjective age and health. However, few longitudinal studies exist that investigate the direction of effects, as it is the aim of the present study. **Methods:** Longitudinal data of 3,038 community-dwelling adults aged 40 years and older from the German Aging Survey (DEAS) were used. Cross-lagged panel analyses were employed to analyze predictive relationships of subjective age and different health dimensions. **Findings:** Cross-sectionally, subjective age correlated with all health dimensions with stronger associations in the old aged. Longitudinally, subjective age predicted physical conditions, depressive symptoms, and self-rated health, whereas the reverse effect was found only for self-rated health. Longitudinal results were consistent across age groups. **Discussion:** Our results show that the relationship between subjective age and health is more complex than cross-sectional correlations suggest. Subjective age seems to be an important resource for preserving health in the second half of life.

Adolescents' attitudes towards quality of life

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The aim of the study was to test adolescents' subjective experiencing of the notions related to Quality of life (N=328, age=16,6). Psycho-semantic method, picture version of the method of semantic selection (Doležal), was used to analyze subjective evaluation of 18 notions related to Quality of Life. Factor analysis was used to extract the data and five factors were selected. Factor 1, social support, is related to notions containing prosocial feature (support and family) and activity (work, sport). Factor 2, family relations, is related to notions "I" and family. Factor 3, affliction, is covered by notions pain, hatred, and drugs. The notions happiness, love, success, and relax satiate the fourth factor, comfort. Factor 5, burden, is included in the notions selfishness, stress, and conflict. To support the quality of life among adolescents individual factors could form basis for the experiential learning based trainings.

The anxiety sensitivity in children: Developmental perspective

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Introduction: Anxiety sensitivity (AS) is the fear of anxiety-related sensations due to beliefs that these sensations will lead to physical illness, social embarrassment, loss of control and mental incapacitation. AS plays a central role in the etiology and maintaining of fear and anxiety. This work examines the gender and age effect on the AS scores. **Method:** Two hundred children aged

9 to 13 years completed the Childhood Anxiety Sensitivity Index (CASI). **Results:** Hierarchical multiple regression analyses showed that the sex and the interaction Sex*Age explain significantly the CASI scores. The interaction indicated that girls have higher AS than boys at the age of 9, 10 and 11 but not to 12 and 13 years. **Discussion:** Consistent with several studies, girls have higher CASI scores than boys. However, this difference disappears at the entrance of adolescence. This developmental observation is important in a prevention perspective of AS.

Voluntary service in hospice and its connection with health within the framework of Logotherapy

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The subject of the research is the connection between the meaning of life and health. The question is: whether voluntary service is a base of the volunteer's meaning of life and if it is connected with his or her health? Two groups have been examined: 51 hospice volunteers and 53 nonvolunteers as a control group. The groups were comparable as far as demographics such as age, sex, education are concerned. The groups were examined by questionnaire methods. The prospective research consisted of two phases. It has been proved that there are differences in the perception of the meaning of life between the groups. Volunteers evaluate their meaning of life as higher than nonvolunteers. It has been discovered that there is a positive correlation between the meaning of life and health resources and negative correlations between the meaning of life and anxiety, and the meaning of life and physical symptoms

Fatigue catastrophizing and core dysfunctional beliefs in breast cancer radiotherapy patients' fatigue

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Background: The goal of the study was to examine the relationships among fatigue catastrophizing, core dysfunctional beliefs, and fatigue in breast cancer radiotherapy patients. **Methods:** Seventy-eight patients participated (mean age=56.3, SD=10.5; 47.45% married; 69.2% with higher than college education). Patients completed questionnaires on: fatigue catastrophizing, core dysfunctional beliefs and fatigue in their last week of radiotherapy. **Findings:** Using bootstrapping procedures to obtain estimates and confidence intervals for indirect effects, results showed that core beliefs (Need for Comfort and Demandingness for Fairness) have significant indirect effects on fatigue through fatigue catastrophizing, as indicated by the 95% CI (0.2 to .19 for Need for Comfort, .01 to .16 for Demandingness for Fairness). **Discussion:** This study is one of the few to place fatigue catastrophizing in the context of the cognitive behavioral theory, thus offering a theory-based perspective on the cognitive factors that impact the experience of fatigue in breast cancer patients.

Social cognitive determinants of hand washing

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Background: Infectious diseases transmitted through hands present a major health problem. To examine social cognitive factors predicting hand washing and their relations to trust in authority-provided health information, a social cognitive model was applied. **Methods:** Cross-sectional data (N=140) from young men (M=19.4, SD=0.80) was collected to assess trust in authority-provided health information, social cognitive variables and hand washing frequency. Regressions under control of education were performed to predict hand washing. **Results:** The results show that hand washing is associated with self-efficacy ($b = .39, p < .001$) and disease worry ($b = .19, p < .01$). No mediation was found: trust in authority-provided health information has a direct effect ($b = .27, p < .001$) on hand washing. The model accounts for 27% of variance in hand washing. **Conclusion:** The results give information for designing behavior change interventions which should address self-efficacy, disease worry and trust in authority-provided health information.

What is inside a cup of coffee: Caffeine or expectations?

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Background: The impact of caffeine, chance of receiving caffeine (stimulus expectancies), and expectations of effects of caffeine (response expectancies) on physiological and subjective variables were investigated. **Methods:** 107 undergraduate university students participated in a double-blind, placebo controlled experiment with a no-treatment group. **Findings:** Consumption of 5 mg/kg caffeine had an impact on participants' SBP, HRV-SDNN, HR (decrease), and subjective experience 40 minutes later even after controlling for respective baseline values, stimulus and response expectancies, and habitual caffeine consumption. No effects on DBP, HRV-HF, HRV-LF/HF, and reaction time were found. While response expectancy score was also a determinant of subjective experience (placebo component in the total effect), actual autonomic (SBP, HR) changes were not. **Discussion:** Placebo reaction plays a role in the subjective changes caused by caffeine consumption but it has no impact on objective variables. Conditional vs deceptive administration of caffeine (stimulus expectancies) had no impact on any assessed variable.

Pedometer-based physical activity intervention may positively influence adolescents' subjective sleep quality

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Background: Poor subjective sleep quality is a common complaint among adolescents and associates with a variety of health problems such as depression and anxiety. Interventions for improving sleep quality among adolescents are thus urgently needed. The aim here examined the effects of a three-week moderate intensity, pedometer-based, physical activity intervention on

adolescents' subjective sleep quality and quantity. **Methods:** Icelandic high school students (N=118) were randomized to a pedometer-based physical activity intervention group or a control group without pedometer. All study participants used diaries to daily record their sleep quality and amount of sleep for three weeks. **Results:** Repeated measures ANCOVA (controlling for baseline) demonstrated that high-school students with pedometer-based physical activity intervention had better sleep quality than those without pedometer ($p=0.037$). No differences were observed for sleep quantity ($p=0.41$). **Discussion:** Moderate intensity pedometer-based physical activity intervention can improve subjective sleep quality and thereby contribute to improved health among adolescents.

Restorativeness from stress and connected to nature in the healthcare environment: Focused on nursing staffs working in cancer center in Korea

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Purpose: The purpose of this study was to examine the therapeutic outdoor environment and its restorativeness from stress among nurses who is working in Cancer Center and how the connection to nature contributes as therapeutic effect to restoration from stress of nurses. This was answered on restorativeness of nature-based place in working environment. **Method:** The participants were 248 nurses from National Cancer Center. Data was collected through self-report questionnaire which included Connection to nature scale by Chalfont and RPRS(Revised Perceived Restorativeness Scale)-short version by Hartig. Therewere applied to determine the therapeutic effect of the outdoor environment upon the healthcare workers' stress. The data was analyzed using the PASW 18.0 program. **Result & Conclusion:** The correlation between the connection to nature of outdoor environment and the perceived restorativeness among nurses was significantly positive. This indicates that the therapeutic outdoor environment has a positive impact on stress relief and restorativeness from stress among nurses. The result of this study seems to demonstrate that the therapeutic outdoor environment has for improvement of its user's health such as positively impact when they are under high level of stress. Therefore connecting with nature through walking trail, garden, park can be health promoting for individuals.

Degrees of obesity (BMI) and health consciousness of people in the suburbs of Vientiane Laos

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Recently, the number of patients with lifestyle diseases has been increasing in developing countries. The present study focused on Laos, in Southeast Asia. The relationship between the degree of obesity as measured by the Body Mass Index (BMI) and health consciousness were investigated. Participants were inhabitants in suburbs of Vientiane, Laos (N = 110). The degree of obesity of participants was calculated and their health and exercise habits were inquired using a scale consisting of five levels. The result of BMI assessment indicated that the number of participants that were considered thin, or normal was 48 (43.6%) and participants considered overweight or obese, were 62 (56.4%). Those that were overweight, or obese, thought that their health condition was not so good and they often exercised. Though many inhabitants in the suburbs of Vientiane, Laos were overweight or obese, they were conscious of their health problems and had good habits.

Subjective age as a determinant of health and life satisfaction among health workers

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Background: The aim was to examine relation between different dimensions of subjective age and two indicators of well-being: self-rated health and life satisfaction. **Method:** 118 health workers aged between 18 and 58 years completed Questionnaire of physical health (Barton et al., 1992), Questionnaire of subjective age and Life satisfaction scale (Diener i sur, 1985). **Findings:** There was no significant correlation between cognitive age, health and life satisfaction. The correlation between discrepancy of chronological and cognitive age with life satisfaction, as well as correlation between discrepancy of chronological and desired age with health and life satisfaction was not significant. There was a significant correlation between life satisfaction and self-rated health in the first two age group (18-32 and 33-42 y.o.), while in the third (43-58 y.o.) was not. **Discussion:** Despite of some previous studies, we didn't confirm significant correlation between older subjective age and lower self-rated health and life satisfaction.

Self-directed interventions to promote weight loss: A systematic review

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Background: Reviews of self-directed weight loss interventions promoting behaviour change are scarce. It is therefore unclear which change techniques and which modes of delivery maximise weight loss. **Methods:** A systematic review of self-directed, interactive interventions was undertaken. A search strategy based on the PICO framework was used to interrogate Medline, EMBASE, CINAHL, PsychINFO and the Cochrane library databases. Title and abstract selection, from 3196 hits, generated 103 studies meeting our inclusion criteria. Intervention descriptions were coded for a variety of characteristics including change techniques and delivery mode. **Findings:** Most interventions were internet-based and this was the most effective delivery mode. Interventions including goal-setting, self-monitoring and feedback were more effective. **Discussion:** Findings provide guidance on the design of self-directed weight loss interventions and highlight a need for more robust evaluations.

Understanding adults' experiences of internet-based weight loss/maintenance interventions: A qualitative study

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Background: E-health applications have become a popular medium for the delivery of weight loss/control programs. This study explored individuals' experiences of using such applications. **Methods:** Semi-structured interviews were conducted with a community sample of 20 young adults who had used a publicly-available phone or internet-based application. Transcripts were analysed using thematic analysis. **Findings:** All participants reported the importance of structure, tailoring and adherence to weight loss application use which, for many, dwindled over time. Some argued for a calorie counting approach to monitor food intake, while most believed that the focus

on calorie counting was too limiting. Only a few mentioned known change techniques content and none experienced positive changes in physical activity levels. **Discussion:** Our findings suggest particular content and strategies which could help to optimise the development of internet-based interventions which are attractive to users and so used more widely, more consistently and over longer periods of time.

The images of smoking young men and girls through the eyes of smokers

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Russia occupies the fourth place in the world for the consumption of tobacco: smokers constitute 40% of the population. There is a tendency to the increase of tobacco smoking among the youth. The purpose of our empirical research was to study how smoking young people perceive the images of smoking young men and girls. The object is smoking youth (18 - 24 years). The survey covered 106 respondents (50 young men, 56 girls). Using the associative experiment, we received 318 associations to stimulus «smoking girl» and 318 associations to stimulus «smoking young man». To describe the structure of our respondents' representations we used P.Vergès method. Gender differences in these representations were obtained. The results can be used in an anti-smoking campaign – to create a social advertisement or as a feedback - to debunk the myth of greater attractiveness of a smoking girl and greater manhood of a smoking young man.

Fathers parenting role: Self esteem, parenting styles and parental self-efficacy

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This study aims to explore the relation between fathers parenting styles (PS), self-esteem (SE) and parental self-efficacy (PSE). Research points out the complex potential relations between SE and PSE. Although PSE has been studied in association to PS, there's a research gap concerning the influence of fathers' SE in this process. In a cross-sectional study a questionnaire comprising personal data, PS, SE and PSE was completed by 154 men (age: M=38.41, SD=6.03) of pre-school/school age children. Hierarchical multiple regression analyses and structural equation models were performed. Like other studies, authoritative PS is associated to positive outcomes, explaining 25% of PSE variance, in opposition to permissiveness, associated to a negative sense of PSE. Education level and SE emerge as significant predictors for fathers PS exerting indirect effects on PSE. Father's higher levels of SE and education are important individual variables to fathers-child relation with implications on family affective climate and health.

Physical fights in Czech adolescents: Frequency, gender, age, and family environment

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Background: Physical fighting is often associated with other risky behaviours, e.g. substance use. Family environment is one of the factors affecting incidence of risky behaviours. The aim of our

study is to explore effect of family environment on frequency of physical fighting among adolescent boys and girls. **Methods:** Population sample is a part of Health Behaviour in School-aged Children (HBSC) survey conducted in the Czech Republic in 2010 (N=4425). We used subsample of 1981 respondents (995 boys, 50,2%). The effect of 8 mutual family activities controlled for age and gender on fighting were assessed. **Results:** The significant predictor of lower fighting was mutual eating in families. Boys are more likely to be involved in fights and higher age decrease odds of fighting. **Conclusion:** Our study found that from 8 observed mutual family activities only eating with family is significant factor that decreases physical fighting among adolescents.

The dietitians struggle concerning obesity: Results from a qualitative study

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Background: Dietitians are in an important position regarding weight loss help in obese patients. However, little is known about their beliefs, attitudes and practices toward obesity and how they perceived their role in the change process. **Method:** Semi-structured interviews were done to Portuguese dietitians and analyzed according to Grounded Analysis' procedures. **Findings:** Dietitians describe themselves as having an active role, feeling competent to deal with obesity. They perceived themselves as being able to positively modify obese motivation and believe in the success of the interventions, described as a constant struggle. However, there are differences between public and private setting. In public practice dietitians demonstrate lower results expectations due to obese non-motivation and lack of adherence. In private practice, there are more positive expectations since obese are more motivated and willing to change. **Discussion:** Due to dietitians determination in achieving success it might be important to improve their motivational skills in order to improve their performance.

Overweight vs. normal weight: The difference in conscious and unconscious associations with physical activity

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Background: It is known that people are not always able to explain the reasons for a specific behavior. To create a new, tailored, and effective physical activity (PA) program for obese youngsters, it is necessary to investigate their PA preferences on both an unconscious and conscious level. **Methods:** In a cross-sectional, observational study, 120 youngsters (60 overweight, 60 normal weight; 8-18year) were asked to complete two implicit association tasks (computerized reaction time sorting-tasks) to determine their unconscious preference of PA vs. non-PA, and strength exercises vs. aerobic exercises. Questionnaires were used to determine their reasoned reactions. **Findings:** First analyses showed that non-overweight youngsters have a more positive association with PA, and aerobic exercises than non-PA and resistance exercises respectively. Overweight youngsters prefer non-PA over PA and have a negative or no associations with PA, strength-, and aerobic exercises. **Discussion:** Specific forms of PA might be more suitable for overweight youngsters.

How healthcare professionals influence patients' illness perceptions: Discussing types of management for chronic kidney disease

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Older adults with chronic kidney disease stage 5, usually choose between dialysis and conservative kidney management (CKM). Few studies have explored patients' perceptions of these management types, especially in older adults. Exploring patients' understanding can help healthcare professionals (HCPs) support informed patient choice. Older patients who were either receiving dialysis, receiving CKM or who were pre-dialysis were interviewed. Questions asked about patients' perceptions of their management options and reasons for making their decision. Analysis followed thematic analysis. Forty-two semi-structured interviews were completed. Patients reported that much of their decision making had been based on information from HCPs, however many patients had different understandings of management options than renal staff. Patients attending different renal units appeared to have different interpretations of the same management type. Results indicate that HCPs, consciously or not, have a significant impact on how patients perceive management options. Findings have implications for shared decision making in CKD.

New format of the quality of life systemic inventory for children (QLSI-C): Preliminary results

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Background: This study assesses the test-retest reliability of the QLSI-C iPad version. **Methods:** Sample consisted of 40 children aged 8 to 12 years which completed QLSI-C twice over a two-week delay. Participants were divided into 3 groups: 13 participants completed iPad (T0) – paper (T1) version, 13 others filled paper (T0) – iPad (T1) and 14 answered iPad (T0) – iPad (T1). **Findings:** Analysis of variance indicates that group effect ($F(2,37) = 1,27, p = 0,29$) and time effect ($F(2,37) = 0,04, p = 0,84$) is not statistically significant nor the interaction effect ($F(2,37) = 0,08, p = 0,92$). Correlations for the 5 global scores between iPad – iPad version is from .63 to .91 and between the 2 different formats is from .40 to .87. **Discussion:** QLSI-C test-retest stability and paper – iPad version equivalence are good. This new format is more attractive for children, decreases time for administration and makes easier the encoding.

Review of focus groups and their benefits for healthcare

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Background: In healthcare research, focus groups are increasingly being used as a means of eliciting rich data. It is critical that proper care and attention be given to planning, implementation and analysis. To this end, the review examines the methodological issues involved in the organising and shaping of a focus group. **Methods:** A critical review of the psychological literature

was undertaken, examining the strengths and weakness of the focus group method, with particular emphasis on the role of the moderator. **Findings:** The focus group is an efficient, engaging, and interactive format designed to obtain rich subjective data from multiple perspectives. However, there are challenges in regards to moderation and to analyses, both of which requires attention and action. **Discussion:** Although much focus has been given to the practical implementation of the focus group method, more analytical guidelines need to be developed in order to maximise their effectiveness.

Think allowed? Applications of the think-aloud method for health psychology

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Background: The think-aloud method involves participants completing questionnaires whilst describing their thought processes. A small number of health psychology studies have applied this method but further Discussion would help researchers plan epistemologically appropriate think-aloud studies. **Methods:** Three think-aloud studies were carried out. Two involved 'healthy' students completing questionnaires about diabetes (n=38) or HIV/AIDS and rheumatoid arthritis (n=12); one involved pregnant women (n=12) completing a questionnaire about eating styles. **Findings:** In each study, participants had particular trouble reading several questions or/and interpreted them in ways that contradicted the intended meaning. Themes arose relating to the moral imperative of self-management, assumptions about healthcare/support and changes in somatic sensations during pregnancy. **Discussion:** The think-aloud method can generate useful data on the content validity of measures that can help optimise questionnaires or explain unexpected findings. Qualitative themes from think aloud data provide insights that provide substantive experiential data and can help novel theorising.

Structures and structuring in the interpretative sensitive area: Counter-transference elements and attitudinal orientation

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Motivation: The border between schizoid personality type structures, schizo-type, interpretative - sensitive decompensation, schizophrenic disorder, schizo-affective disorder and schizophrenia requires a self-analysis of the psychiatrist's counter-transference, even more so due to the fact that this can be done longitudinally. **Objective:** This paper is intended as an analysis of counter-transference dynamics in terms of contact for a period of about six years with patients whose personality structure is psychotically imprinted in the paranoid psychosis register. Results are presented on two levels: first, in which through specific psycho-diagnostic tools (projective tests and multi-phase personality inventory) the psychological profile is expressed on a group of 30 patients admitted, in time, with diagnoses from the "schizoid" area. The second subset of results refers to the analysis of the psychiatrist's counter-transference sphere, psychiatrist who's assessing and treating this group of subjects. **Conclusions:** The careful monitoring of the counter-transference oriented towards the optimal relational attitude and the proper management of time.

How to help the volunteers stay away from burnout and get a quality of life?

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Volunteers are important resources for non-profit organizations. Usually, there is no formal contractual relationship between the volunteers and the organization. Therefore, how to enhance the degree of volunteers' working meanings and quality of their lives become important issues. This study used cognitive evaluation theory to build a "burnout, spirituality at work, social support, continuous service" model. In this study, we collected 229 samples from the Tzu Chi Foundation and used SEM method to analyze the model. The result showed that role conflict was positively related to burnout. Burnout was negatively related to continuous service and quality of life. Spirituality at work and social support moderated the relationship between burnout and continuous service and quality of life. Implications of results are that only when a volunteer has a healthy state of mind, can he/ she joins organization activities sustainably.

Study of well-being in Georgian students

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The pursuit of psychological health or psychological well-being is central to human existence. Research of students' well-being is the first study conducted in Georgia. The aim of the study was to evaluate the level of psychological well-being of Georgian students and identify relation among psychological well-being, depression and coping strategies. Within the framework of the research 252 students (mean age 21) were surveyed. The study methods were: Ryff well-being inventory, Coping Inventory for Stressful Situation (CISS), from Endler & Parker and, Kucher Adolescent depression scale (KADS-6). The stressors were assessed as the number of daily hassles and the number of critical life events. The results of the study show that majority of students have middle level of well-being. A problem and emotion oriented coping strategy correlates to a high level of well-being. Avoidance-oriented coping strategies correlate to an impaired well-being; The correlation between avoidance-oriented coping and well-being was negative. The research also revealed that from subjective factors, such as, having a purpose of life, orientation on personal growth helped to maintain a relatively high level of well-being. These factors turned out to be a resource with a strong stress buffering effect.

Personnel selection in law enforcement: Predicting resistance to stress

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For the prediction of success in high-risk activities, such as those of the law enforcement, an important role is played, within the personnel selection process, by the psychological assessment. Apart from skills, it must include the investigation of the characteristics of personality and, particularly, the determinants of resistance to stress. As a matter of fact, this was also the reason for choosing the aims of this research. The participants (N=386) were employees of law enforcement units, perform-

ing intervention missions. We attempted to find certain prediction equations regarding psychological resistance to stress, by the method of multiple linear regression, having as a theoretical basis the Cognitive Model of Stress. The results demonstrated that approximately half of the variant of stressful impact of life events on the individual, as well as of the method of choosing the coping strategies, can be explained with the help of the characteristics of personality.

Relationships between coping strategies and vicarious trauma beliefs: A correlational study

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Our aim is to investigate the associations between vicarious trauma beliefs and the use of particular coping strategies in a sample of hospital workers. A total of 131 medical staff participated in this study. To measure the participants' coping strategies, when faced with stressful events, the 53-item COPE scale (Carver, Scheier, & Weintraub, 1989) was used. The participants also completed the The Trauma Attachment and Belief Scale (TABS; Pearlman, 2003). Pearson's correlations revealed that all types of dysfunctional beliefs are significantly relate with the use of a particular coping strategy. Positive reinterpretation is negatively associated, while mental and behavior disengagement are positively associated with almost all types of dysfunctional vicarious trauma beliefs. The results contributes to existing knowledge of how dysfunctional vicarious trauma beliefs are related to coping strategies when confronted with adversity and primary victims of trauma.

Self-rated health and quality of life of senior students related to gender

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Background: controversial data exists about health inequalities depending on gender within social groups. Aim of this study is to disclose self-rated health (SRH) and quality of life (QoL) differences in senior schoolchildren depending on gender. **Methods:** 111 boys and 149 girls participating as a subgroup in joint Health project with Kaunas Regional municipality were investigated by using WHO QoL-100 and 6 items of unifactorial Health Scale. Cronbach's Alfa for all scales was found within an interval from 0.5 to 0.8. **Findings:** Boys scored higher on physical domain; girls were found to be higher on social domain of QoL. Girls had less positive evaluations on SRH. **Discussion:** Differences between boys and girls in SRH and QoL may appear depending on different content of items representing concept of health.

The impact of the school class social atmosphere on the quality of school life

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Quality of school life as subjective well-being of pupils determined by school indicators and their experience with education. Our focus: classroom atmosphere influence on individual experience of pupils (N=1067, age 10-15). The social atmosphere's scale in class (10 variables) follows two

factors: activity-moral - relation to learning; emotional-social - group's psychological situation, acceptance and life satisfaction. By using the Principal Components Analysis method three components were identified. First, relationship component (54,5% of the total variance of variables). It expresses the degree of relationship between pupils and their relationship to school performance. Second, communication and group's leadership component, reflects the impact of the teacher on the atmosphere. Third, independent component is latent variable – factor of experience that pupils received during the school life. Significant is also emotional tuning and social control. Their level reflects the extent to which pupils gain through participation in school activities social and emotional satisfaction.

Impact of intervention dose in an oral health promotion initiative in preschool children

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Background: Dose-response relationships are seldom studied in health promotion. This study investigated the impact of the number of intervention components on oral health-related behaviour of preschool children in a controlled oral health promotion intervention. **Methods:** Parents of 1080 Flemish children received oral health advice and education materials during preventive health visits in the first three years of life. Implementation fidelity and intervention dose were assessed through recording the number of contacts, information topics and materials received. Data on dietary and oral hygiene habits and dental attendance were obtained through structured questionnaires based on the Theory of Planned Behaviour, completed by the parents when the children were three and five years old. **Results:** Logistic regression analyses revealed an effect ($p < 0.05$) of intervention dose for dental attendance, frequency of tooth brushing and helping with tooth brushing at age three. **Conclusion:** Intervention dose affects the outcome of oral health promotion initiatives in children.

Long live love: Adoption and implementation of an online sexual health program in high schools

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Background: Widespread adoption and correct implementation of interventions is important for their effectiveness. Based on Intervention Mapping and the adoption model of Paulussen et al. (1994), teachers' decision to work with a new Dutch online sex education program for high school students was studied. **Methods:** Several focus groups and individual interviews before and after intervention try-out were done with teachers ($N = 32$) and students ($N = 61$). In addition, an online survey measuring antecedents of adopting online education materials was completed by $N = 45$ teachers. **Findings:** Teachers and students positively adopted the program. However, the importance of compatibility with national exam prerequisites and time management was stressed. In addition, beliefs and norms determined intention to adopt the program. **Discussion:** Teacher participation in working group proved essential for program adoption and implementation. Implications on how to promote (online sex education) lessons among high school teachers will be discussed.

Coping, disease-related disability, and quality of life in COPD-patients and their relatives

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Background: Patients suffering from chronic obstructive pulmonary disease (COPD) and their close relatives are often highly stressed and likely to experience impairments in quality of life. This study explores the effects of disease-related coping on COPD-related disability and quality of life in patients and close relatives. **Methods:** 143 patients and relatives completed questionnaires assessing COPD-related disability (COPD-disability-index; CDI; version for patients and relatives, respectively), quality of life (EuroQoL), coping with illness (Freiburg Questionnaire of Coping with Illness; FKV) and social support (Social Support Questionnaire; F-SozU). Exercise capacity was assessed using the shuttle walk test. **Findings:** Patients' coping strategies predicted their COPD-related disability and quality of life, over and above their exercise capacity. Relatives' disability (derived from the patients' COPD) and quality of life could not be predicted by their coping strategies. **Discussion:** Early low-threshold interventions targeting patients' disease-related coping may help to improve COPD-related disability and quality of life.

Family life, friendships and bullying in secondary school

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Background: The interaction that the adolescent has with their family and friends play an important role in delineating its status as victim of bullying. This paper seeks to identify factors associated to be an adolescent victim of bullying in students enrolled in public secondary schools in Guadalajara, Mexico. **Methods:** This is a cross-sectional, analytical study. The information was gathered by a questionnaire applied in school to 1706 randomly selected 11-17 years old students between 2009 and 2010. Logistic regression model was used to identify factors associated to be bullied. **Findings:** 18% of students were victims of bullying; not feel accepted by their pairs and to be victim or witness of domestic violence were factors significantly associated to be victim of bullying. **Discussion:** Study reveals that family violence, loneliness and lack of strong friendly relations are key elements to timely identification of victims of bullying in secondary school.

The effectiveness of an ACT-based intervention to manage distress and promote positive affectivity

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This study explored the efficacy of an Acceptance and Commitment Therapy (ACT) based program to manage psychological distress (PD) and to increase positive affectivity and quality of life (QoL) in patients with cancer. 67 patients with cancer were randomly assigned to: a) Medical Treatment-As-Usual (MTAU) plus ACT intervention (MTAU+ACT, n=32) or b) MTAU (n=35).

Outcome measures were assessed before (pre-treatment) and after (post-treatment) the application of the ACT program. Pre- to post-treatment differences in outcome measures did not reach statistical significance in the MTAU condition. Patients in the ACT+MTAU condition showed a significant decrease in PD and a significant increase in positive affectivity at post-treatment. ANCOVA analyses showed that patients in the MTAU+ACT condition reported lower PD and higher social activity than patients in the MTAU condition at post-treatment. Findings support the effectiveness of the ACT programs to manage PD and increase QoL in patients with cancer.

Relation of life satisfaction and characteristics of partner love of adults in the context of their quality of life

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Aim of our research was to find out the relationship strength of individual areas of life satisfaction and three pillars of love (Intimacy, Passion, Commitment) of adult persons, living in a partner relation. To identify the life satisfaction and its areas, we used Life satisfaction questionnaire (Fahrenberg et al., 2001) and to identify Intimacy, Passion and Commitment, we used Sternberg's Triangular Love Scale. Research file consisted of 212 adult persons, living in permanent partner relation (more than 1 year), male and female ratio was equal, average age was 40.8 years. We discovered that the higher the passion of adults living in partner relation, the significantly higher ($p < 0,01$) is their life satisfaction with health, occupation, financial situation, free time spending, children, partner, their own person, sexual life, social network of friends and acquaintances, living. Similar results were also noted between the relationship of observed dimensions of life satisfaction and intimacy (we didn't note a significant relationship only in the satisfaction with living), as well as dimensions of life satisfaction and commitment. We can claim that general experiencing of partners' life satisfaction highly significantly correlates with experiencing passion ($r = ,492$, $p < 0,01$), intimacy ($r = ,382$, $p < 0,01$) a commitment ($r = ,357$, $p < 0,01$) of adult persons living in a permanent partner relation, which is an assumption of higher life quality of these people (life satisfaction is a high correlate of quality of life).

Differences in life satisfaction of partners living in marriage and cohabitation in the context of their quality of life

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Aim of our research was to compare individual dimensions of life satisfaction of partners according to the type of partner relation – living in cohabitation and in matrimony more than 1 year. Based on existing researches and theories (e.g. Ermisch, Francesconi, 1998, Sarantakos, 1984, Mastekaasa, 1994, Waite, Gallagher, 2000), cohabitants have higher tendency to instability in relationship, more health problems, experience higher economic discontent, they don't trust their partner as much as people living in matrimony. We assume that cohabitants in adult age will have lower life satisfaction compared to people living in matrimony. Research file consisted of 98 adult persons living in cohabitation and 114 adult persons living in matrimony. Male and female ratio was equal. Average age was 40.8 years. Life satisfaction was determined using Life satisfaction questionnaire (Fahrenberg et al., 2001). Higher life satisfaction of people living in matrimony

compared to people living in cohabitation was confirmed in all dimensions: life satisfaction with health, occupation, financial situation, their own person, sexuality, social network of friends and acquaintances, living ($p < 0,01$), with partnership and matrimony ($p < 0,01$), with spending free time ($p < 0,05$), with relationship to children ($p < 0,05$). According to research resources, we can generally state higher life satisfaction of people living in matrimony compared to people living in cohabitation.

Realistic and unrealistic optimism toward consequences of alcohol consumption: The importance of psychological resources available to assess accurately the risky nature of its own behaviour

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We study realistic and unrealistic optimism (UO) in the assessment of perceived risk of occurrence of negative consequences related to alcohol consumption. UO occurs when people perceive their personal outcome as positive while they are engaging themselves to a risky behaviour. According to us, the realistic nature of optimism is related to psychological resources helping people to assess accurately the risky nature of their behaviour. 487 subjects identified as realistic or unrealistic given their actual behaviour (low, misuse or alcohol dependence) and as optimistic or pessimistic given the outcome anticipated (low, average, high risk) completed several scales: Mindfulness (MASS), dispositional optimism (LOT-R), Neuroticism (NEO-PI-R) and Hospital Anxiety and Depression. UO subjects showed less mindful state, less dispositional optimism, more neuroticism and more psychological distress than other groups. The adaptive nature of optimism is discussed given personal resources available to be aware of the risks taken and to change behaviour.

The Influence of the sex education programme on sexual knowledge and attitudes towards safe(r) sex

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The National programme of sex and reproductive health includes, among others, systematic sex education at schools. The study presents the development and effect evaluation of the sex education programme on the sex knowledge level (Miller-Fisk Sexual Knowledge Questionnaire, Gough, 1974) and attitudes towards safe(r) sex of young people. The intervention (15-20 meetings, 90-120 minutes/meeting) was implemented by trained teachers as extracurricular lessons, using a theory and an evidence-based approach, based on evaluation comparison of the control (N=67) and the experimental (N=60) groups during 10 months. The results indicate statistically significant increase in the level of sex knowledge, increase of the risk perception and increased responsibility in sexual behaviour of adolescents in experimental group. Findings highlight the importance of the sex education program carried out at schools, as well as its positive impact on sex knowledge and safe(r) sex behaviour.

Efficiency of non medical integrative methodology for children's with migraine and learning disorders

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Alternative non medical treatment possibilities are looked for. The importance of Biofeedback (BFB) is increasing. Aim of the study: to determine the efficiency of BFB on children with migraine (M), learning disorders (LD), autonomic nervous system (ANS) function. Task Force® Monitor device, Analog Visual Scale, BFB X-pert 2000, self-elaborated persuasion training methodology were used. 17 boys with M and LD average age $11 \pm 0,7$. participated in 12 BFB temperature sessions, resulting in reduction of frequency of M attacks $3,3 \pm 2,3$ times a month. Baroreceptor sensitivity non - significantly increased, sympatho-parasympathetic balance was re-established. All patients showed better academic performance. Percussion instrument play showed positive effect after 6 months. It is concluded that BFB has a potential in migraine treatment in children, ANS function, reduction of learning disorders. A complex system of methods, including BFB, exercises of percussion instrument play is started to incorporate as part of methodology.

Features of ecological consciousness and emotional stability of students

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Objective: the relations between ecological consciousness, sensitivity to stress and emotional stability of students. 60 Russian participated in the empirical research with the use of the method for diagnosing the intensity of the subjective attitude to nature "Naturafil" (S.D.Derjabo), method of a self-estimation of a mental condition "SAN" (V.A.Doskin), test for (J.V.ShCherbatyh's) stress resistance. **Revealed correlations:** a high level of "a practical" component of ecological consciousness is connected with parameter "Activity"; perceptual-affective " and " personal action " components of ecological consciousness positively correlate with a variable reflecting constructive ways of overcoming of stresses. **Conclusion:** adolescents in general characterized by the perceptual-affective subjective-not pragmatical type of the subjective relation to the nature. Level of development of ecological consciousness is connected with stress resistance and involved in the regulation of emotional stability of students.

Online services for the elderly towards a better quality of life: What encourages, what discourages?

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Seniors are a growing social group. Internet use may improve their quality of life. But being a new and technical means, the Internet creates barriers that may result in a digital divide. The research was done using purposive sampling method among computer class participants at the Third Age University in Gdansk. The findings show that activities encouraging seniors to use the

Internet include searching for information and staying in touch with relatives and friends. Factors discouraging them include obtaining wrong results, necessity of registration, difficult vocabulary, moving elements on pages, spam and rude and aggressive comments. Therefore, creating online services for the elderly requires simplicity, friendliness and focusing on informative and communicative services. These can promote active and positive aging and prevent long lasting stress from digital and social exclusion. Research funded from public means as grant N/N115/211739 of the Polish Ministry of Science and Higher Education.

Possible stress factors for elderly users in online human resources services

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Seniors are a growing social group. Internet use may improve their quality of life. But being a new and technical means, the Internet creates barriers that may result in a digital divide. The research was done using purposive sampling method among computer class participants at the Third Age University in Gdansk. The findings show that activities encouraging seniors to use the Internet include searching for information and staying in touch with relatives and friends. Factors discouraging them include obtaining wrong results, necessity of registration, difficult vocabulary, moving elements on pages, spam and rude and aggressive comments. Therefore, creating online services for the elderly requires simplicity, friendliness and focusing on informative and communicative services. These can promote active and positive aging and prevent long lasting stress from digital and social exclusion. Research funded from public means as grant N/N115/211739 of the Polish Ministry of Science and Higher Education.

Beating and insulting children as a risk for adult cancer, cardiac disease and asthma

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Background: The use of physical punishment for children is associated with poor psychological and behavioral outcomes, but the causal pathway is controversial, and the effects on later physical health unknown. **Method:** We conducted a cross-sectional survey of asthma, cancer, and cardiac patients (150 in each category, 75 male) recruited from outpatient clinics and 250 healthy controls (125 male). All participants were 40-60 years old and citizens of Saudi Arabia, where the use of beating and insults is an acceptable parenting style. Demographic data and recalled frequency of beatings and insults as a child were assessed on an 8-point scale. Beating and insults were highly correlated ($\rho = 0.846$). Propensity score matching was used to control for demographic differences between the disease and healthy groups. **Findings:** After controlling for differences, more frequent beating (once or more per month) and insults were associated with a significantly increased risk for cancer (1.7), cardiac disease (1.3) and asthma (1.6), with evidence of increased risk for cancer and asthma with beating frequency of once every six months or more. **Discussion:** Our results show that a threatening parenting style of beating and insults is associated with increased risk for somatic disease, possibly because this form of parenting induces stress. Our findings are consistent with previous research showing that child abuse and other early life stressors adversely affect adult somatic health, but provide evidence that the pathogenic effects occur also with chronic minor stress. A stress-inducing parenting style, even when normative, has long term adverse health consequences.

Exploring the usefulness of explicit and implicit research narratives in self-help books to reduce stress

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This pilot study looks at the effectiveness in stress reduction of self-help books explicit and implicit research narratives and how 'experience taking' may aid this in two groups (Professionals, eg, teachers and doctors; and Non-Professional full-time carers). 53 participants (half in each group) took part. First, they completed the Coping Inventory for Stressful Situations, the Oxford Happiness Questionnaire and the Experience Taking Questionnaire. Next they read one of three books (containing implicit or explicit research narratives) and a month later completed the follow-up questionnaire. The explicit-research narrative was almost twice as successfully as the implicit narrative at inducing 'experience taking'. The explicit narrative also significantly increased task-focused coping and decreased emotion-focused coping. Neither avoidance-focused responses nor happiness scores were affected by condition. The implications of this study suggest "experience taking" may enhance how a self-help book is understood, especially if using brief metaphors rather than a complete story narrative.

Self-esteem and distress as important predictors of nicotine addiction among schizophrenic patients

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Introduction: The phenomenon of nicotine addiction involves 60-90% of patients with schizophrenia, and it is a much higher rate than among the general population (25-47%). **Aims:** The research was to determine whether the psychological factors such as self-esteem and distress are important predictors of smoking in a group of psychotic patients. **Methods:** 97 smokers with schizophrenia participated in the research. Participants were asked to complete four questionnaires: Fagerström Test for Nicotine Dependence, Test of Motivation for Smoking Cessation, Self-Esteem Questionnaire and Distress Thermometer. **Results:** The study confirmed a significant relationship between lower self-esteem and higher distress and the number of cigarettes smoked. Lower self-esteem is also correlated with low motivation for smoking cessation. **Conclusions:** This study showed that psychological treatment should be implemented into programs for nicotine dependence to improve the functioning schizophrenics in terms of enhancement of self-esteem and coping with stress.

Health and coping with stress by patients after bone marrow transplantation: Psychological perspective

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A study on the relationship between level of subjective and objective health by patients after bone marrow transplantation (BMT) and their coping with stress is presented. The theoretical basis of

researches is Helena Wrona-Polanska's Functional Model of Health (2003), in which health is a function of creative coping with stress. 141 patients after BMT - 80 males and 61 females – at the Hematology Clinic of Jagiellonian University of Collegium Medicum, were studied clinically. Objective health was examined doctor on the scales. Examined methods were - the questionnaires examining stress, coping styles and strategies, grading scales sense of health and calm. There is a clear difference between subjective and objective level of health. Subjective health depend on coping strategies with stress and objective health depend on patient's collaboration with therapeutic team. The basis of health promotion by persons after BMT is development effective strategies of coping with stress and increase patient's activity.

Prostate cancer patient and spouse reports of neurobehavioral symptoms following androgen deprivation therapy

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Background: Researchers have examined the effects of androgen deprivation therapy (ADT) upon neurocognitive impairment, but not neurobehavioral functioning (i.e., behavioral symptoms of neurological dysfunction, including apathy). This preliminary study describes prostate cancer patients' neurobehavioral functioning before and after ADT as reported by patients and their spouses. **Methods:** Seven ADT patients and their spouses reported pre- and post-ADT completed the Frontal Systems Behavior Scale to measure neurobehavioral symptoms (i.e., apathy, disinhibition and executive dysfunction). Wilcoxon signed-ranks tests were used to explore differences. **Findings:** Patients and their spouses reported increased apathy ($p < .05$) and overall impairment ($p < .05$) post-ADT, and spouses also reported increased executive dysfunction ($p < .05$) in patients post-ADT. **Discussion:** ADT patients and their spouses noted increases in neurobehavioral symptoms following ADT. Since neurobehavioral symptoms (e.g., apathy) are often confused with other diagnoses (e.g., depression), understanding the nature of such symptoms has implications for intervention.

Mothers' un-employment: Health, psychological and family outcomes

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In a retrospective survey (N=3174) we compared three groups of mothers of toddlers: 1. employed, 2. deliberately unemployed, 3. non-deliberately unemployed in the ELSPAC study from 1991-1992 (European Longitudinal Study of Parenthood and Childhood). We analyzed the following aspects: 1. physical health, 2. psychological health, 3. family functioning. The study is grounded in the unemployment stress and work-family conflict framework as well as in other theories such as family systems, gender roles, child-development. Groups were tested by chi-square, Fisher's exact test and risk estimate method. Results revealed deliberately unemployed mothers as the most satisfied group with their life, family relations and enjoying the best physical and psychological health. Working mothers followed this pattern, however some psychological discomfort and less satisfactory family life based on double-roles were found. The most critical group are non-deliberately unemployed mothers with many health, psychological, family issues which has serious implications also for child development.

Gender difference on smoking behavior transition during adolescence in Korea

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Background: This Study was conducted with aims to explore what kind of psycho-social factors are influenced on smoking behavior transition in non-smoker group, and how these factors are differed from gender. **Method:** Korea Youth Panel Survey (KYPS) data was used for this study. 3,449 adolescents at 8th grade were participated in KYPS with multiple point prospective panel design for 6 years. Psycho-social factors including parent attachment, perceived stigma by neighborhood, self-control, self-esteem, self-stigma, self-confidence, aggression, etc., were measured. Logistic regression analysis was used with smoking behavior (non-smoker vs. current smoker) at 6th year as a dependent variable. **Results:** In boys, self-control at 6th year was associated with smoking behavior at 6th year, but self-control at 1st year in girls. Aggression at 6th year was associated with smoking in both. **Discussion:** The result of this study suggested the need to train how emotional stress can be expressed, appropriately in adolescence.

Traffic safety attitude's change during the driving training in Lithuania: The role of personality

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Inexperienced drivers are the most problematic group for road traffic safety in most countries including Lithuania. This study is intended to find out if the current standard driving training practices in Lithuania change the traffic safety attitudes and how this change is affected by personality traits. A longitudinal survey using self-report questionnaire (with attitudes towards traffic safety scales and Big Five personality traits) was carried out at the beginning of the driving training program; and in the follow-up survey at the end of this program. The total sample included 83 learners. The results showed that traffic safety attitudes change towards more unsafe after the driving training program for both genders. Only extraversion in male group was related to attitude change. The results show insufficient preventive curriculum of the standard program and imply different approach towards driving training for young people in Lithuania.

Determinants of change in the functioning among patients after myocardial infarction

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Background: Chronic illness is a critical life event that requires adjustment to new life circumstances. In the present research we tested a model of determinants that facilitate adjustment to chronic illness. **Methods:** 71 patients (23 women and 48 men; M=58,46;SD=8,70) after myocardial infarction completed a set of questionnaires: IPQ-R, Brief-COPE, AIS, CES-D, SWLS, RS. We took three measurement: at the beginning of hospitalization, prior to the release from the hos-

pital and 6 months later. **Findings:** 6 months after the hospitalization acceptance of disease increased ($M1=26.18;SD1=6.55;M3=30.61;SD3=5.92;t=-5.128; p<0.001$), satisfaction with life decreased ($M1=23.25;SD1=4.94;M3=21.11;SD3=5.33;t=3,774; p<0.001$) social roles fulfillment decreased ($M1=34.26;SD1=9.04;M3=29.20;SD3=9.41;t=3,791; p<0.001$). Some beliefs about the illness and coping strategies were identified as the predictors of the change. **Discussion:** The results indicated that functioning of cardiac patients changes with time. Positive adjustment is facilitated by illness managability and plannig, and inhibited by self-blame and substance use.