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# Compassion-Focused Therapy as Guided Self-Help for Enhancing Public Mental Health: A Randomized Controlled Trial

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**Objective:** Despite promising results for compassion-focused therapy (CFT) as self-help, larger-scale trials including long-term follow-up data are needed to establish its effectiveness in the context of public mental health. Empirical evidence supporting its effectiveness in improving well-being is lacking. In a randomized controlled trial, the effects of CFT as guided self-help on well-being were evaluated. **Method:** Adults (mean age = 52.87,  $SD = 9.99$ , 74.8% female) with low to moderate levels of well-being were recruited in the Dutch population and randomized to CFT ( $n = 120$ ) or a waitlist control group ( $n = 122$ ). Participants completed the Mental Health Continuum–Short Form (well-being), Hospital Anxiety and Depression Scale (depression and anxiety), Perceived Stress Scale (stress), Self-Compassion Scale–Short Form (self-compassion), Forms of Self-Criticizing/Attacking and Reassurance Scale (self-criticism and self-reassurance), Positive and Negative Affect Schedule (positive/negative affect), and Gratitude questionnaire (gratitude) at baseline, postintervention (3 months), 3- and 9-month follow-up. **Results:** Compared with the waitlist control group, the CFT group showed superior improvement on well-being at postintervention,  $d = .51$ , 95% CI [.25, .77],  $p < .001$ , and 3-month follow-up,  $d = .39$ , 95% CI [.13, .65],  $p < .001$ . No significant moderators were found. On all secondary outcome measures but positive affect, the intervention group showed significantly greater improvements up to 3-month follow-up. At 9-month follow-up, improvements on all measures were retained or amplified among CFT participants. **Conclusions:** CFT as guided self-help shows promise as a public mental health strategy for enhancing well-being and reducing psychological distress.

## What is the public health significance of this article?

This study demonstrated that compassion-focused therapy implemented as guided self-help in an adult community sample has favorable effects on well-being and psychological distress up to 12 months after baseline. Given these long-term effects, broader implementation and dissemination of the intervention is encouraged to advance public mental health.

**Keywords:** compassion, mental health, psychological distress, randomized controlled trial, self-help

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Two avenues for achieving public mental health can be distinguished: reducing psychological distress and promoting well-being. Along with growing evidence that distress and well-being are two distinct continua (Huppert & Whittington, 2003; Keyes,

2005; Lamers, Westerhof, Glas, & Bohlmeijer, 2015), in the field of public mental health, the notion that both distress and well-being oriented efforts should be pursued is increasingly recognized and embraced (Slade, 2010). While emphasis has been on illness

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prevention for many years, over the past decades, an impetus has been given to the promotion of well-being. A growing number of studies underscore the need for promoting well-being and flourishing from a public mental health perspective. High levels of well-being have been shown repeatedly to have a beneficial impact on, among others, the risk of mental illness, quality of life, longevity and health care use (Howell, Kern, & Lyubomirsky, 2007; Huppert, 2004, 2009; Keyes, 2007; Keyes, Dhingra, & Simoes, 2010; Keyes et al., 2012; Lamers et al., 2015; Ryff, 2014; Schotanus-Dijkstra, ten Have, Lamers, de Graaf, & Bohlmeijer, 2017; Wood & Joseph, 2010).

A rapidly emerging form of psychotherapy which suits the two-continua approach is compassion-focused therapy (CFT, Gilbert, 2014). A core process in CFT involves cultivating compassion, the ability to be sensitive to the suffering of self and others combined with a commitment to try to alleviate or prevent it (Gilbert, 2014; Kirby, 2016). Key to compassion is self-reassurance, that is, individuals' ability to generate feelings of warmth, soothing and reassurance toward themselves in response to setbacks or failures (Gilbert, Clarke, Hempel, Miles, & Irons, 2004). Although cultivating compassion can be thought of as the primary mechanism of change underlying CFT, it is assumed that the development of compassion—and particularly self-reassurance—facilitates secondary mechanisms of change, most notably the ability to reduce self-critical styles of thinking characterized by the tendency to negatively evaluate and judge aspects of the self (Gilbert, 2014).

Over the past decade, a number of studies have begun to explore the effectiveness of CFT and CFT-based approaches in terms of mental health outcomes. In a recent review (Kirby, 2016), five randomized controlled trials were identified, yielding promising preliminary evidence for the effectiveness of CFT—either as group-based intervention administered by a therapist or as unguided self-help—in both clinical samples (Braehler et al., 2013: schizophrenia-spectrum disorder; Kelly & Carter, 2015: binge eating disorder) and nonclinical samples (Arimitsu, 2016: low self-compassionate people; Kelly, Zuroff, Foa, & Gilbert, 2010: smokers seeking to quit; Shapira & Mongrain, 2010: nonspecific adult sample).

Given that CFT offers opportunity for both relieving distress and improving well-being, this type of intervention may be particularly suitable to address public mental health on a large scale. Hence, it seems a worthwhile endeavor to explore possibilities to extend the reach of CFT. One possibility involves the use of self-help formats, which have the potential to increase the accessibility and scalability of CFT against limited costs (Chamberlain, Heaps, & Robert, 2008; Cuijpers & Schuurmans, 2007). Three previous trials have tested the effectiveness of (unguided) CFT-based self-help (Kelly & Carter, 2015; Kelly et al., 2010; Shapira & Mongrain, 2010). Although these studies demonstrate that CFT elicits positive effects on self-compassion, depressive symptoms and emotional well-being, they are constrained by a small sample size ( $n = 41$ , Kelly & Carter, 2015), a lack of follow-up data (Kelly & Carter, 2015; Kelly et al., 2010) and/or a very brief intervention period (1 week; Shapira & Mongrain, 2010). In an era where self-help receives increasing interest among health care practitioners, there is need for more large-scale and methodologically sound trials to further establish the effectiveness of CFT-based self-help interventions, especially in terms of improving

well-being. Indeed, whereas multiple reviews and meta-analyses indicated that psychological self-help interventions have favorable effects on common psychological symptoms such as depression and anxiety (Cavanagh, Strauss, Forder, & Jones, 2014; Cuijpers & Schuurmans, 2007), there is still a paucity of empirical literature supporting its effectiveness in improving well-being.

To our knowledge, the present study is the first large-scale trial to examine the effectiveness of CFT as guided self-help in the context of public mental health, including long-term follow-up data. The primary aim was to evaluate the effects of a CFT self-help intervention with e-mail counseling on well-being in nonflourishers, that is, adults with suboptimal levels of well-being, as a population at risk (Schotanus-Dijkstra, ten Have, et al., 2017), as compared with a waitlist control group. A secondary aim was to explore the effects of the intervention on psychological distress. CFT was hypothesized to be superior to a waitlist condition in improving well-being (primary outcome), flourishing, depressive and anxiety symptoms, stress, self-compassion, self-criticism, positive and negative affect, and gratitude (secondary outcomes).

Additionally, we sought to explore whether certain subgroups are more or less likely to benefit from CFT in terms of improving well-being. Previous research has indicated that the effectiveness of interventions aimed at increasing well-being is moderated by several sociodemographic characteristics (e.g., age) and psychological resources (e.g., baseline levels of depression and affect; Lyubomirsky & Layous, 2013). Other research has indicated that life-events are associated with well-being (Keyes, 2007; Schotanus-Dijkstra et al., 2015). More specifically in relation to compassion-focused interventions, a few existing studies indicate that its effects are moderated by baseline levels of self-criticism (Leaviss & Uttley, 2015). Other than that, little is known about moderators of the effects of compassion-focused interventions. In the current study, we explored the moderating impact of several sociodemographic characteristics, psychological resources and the occurrence of positive/negative life events before baseline on the effectiveness of CFT in the experimental group versus the waitlist control group. Finally, as previous studies have shown that guided self-help is more effective than unguided self-help (Cuijpers & Schuurmans, 2007; Gellatly et al., 2007), we aimed to preliminary test the added value of the e-mail counseling in terms of effectiveness of the CFT self-help intervention.

## Method

### Study Design

The study concerned a two-arm randomized controlled trial (RCT) with one intervention group and one waitlist control group. Assessments took place before the start of the intervention (baseline), directly after the intervention (postintervention; 3 months after baseline), and at 3- and 9-month follow-up (6 and 12 months after baseline, respectively), by means of online self-administered questionnaires. This study was approved by the Faculty of Behavioral Sciences Ethics Committee at the University of Twente and registered in the Netherlands Trial Register (NTR5413). The findings of this RCT are reported conform the Consolidated Standards of Reporting Trials (CONSORT) guidelines (Schulz, Altman, & Moher, 2010) and the Journal Article Reporting Standards (JARS) for research in psychology (APA Publications and Communica-

tions Board Working Group on Journal Article Reporting Standards, 2008).

## Participants and Recruitment

In September 2015, participants were recruited through advertisements in two national Dutch newspapers. The advertisements contained a link to the research web page where the study purpose was explained in more detail and where people could sign up by filling out an online screening questionnaire.

Participants were eligible for participation if they: (a) were 18 years or older; (b) had low to moderate levels of well-being, as determined by the Mental Health Continuum-Short Form (MHC-SF; Lamers, Westerhof, Bohlmeijer, ten Klooster, & Keyes, 2011); (c) had access to a computer or tablet with a good Internet connection; (d) possessed an e-mail address; (e) had sufficient proficiency of the Dutch language; and (f) provided informed consent. Participants who were flourishing, as determined by the MHC-SF (Lamers et al., 2011) were not eligible for participation as this does not leave enough room for improvement on the primary outcome. Additionally, participants who reported moderate to severe depressive and/or anxiety symptoms, as indicated by a score  $>11$  on the depression or anxiety subscale of the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983), were excluded because this requires more intensive treatment. They were advised to contact their general practitioner.

Figure 1 displays the flow of participants. A total of 470 participants started the online screening questionnaire, of whom 254 met the eligibility criteria and were invited to complete the baseline assessment. Of the 216 excluded participants, most were excluded because of high anxiety and/or depression scores ( $n = 132$ ). Of the 245 participants who completed the baseline assessment, two participants were excluded due to incorrect completing of questionnaires. This resulted in the enrolment of 243 participants who were randomly assigned to the intervention ( $n = 121$ ) or waitlist control condition ( $n = 122$ ). One participant withdrew from the study prior to the start of the intervention, hence was excluded from the analyses. Demographic characteristics of the participants are presented in Table 1. Participants had a mean age of 52.87 years ( $SD = 9.99$ , range: 20–78). The majority was female (74.8%) and highly educated (88.0%). Most participants had paid employment (76.0%), were married (54.1%) and cohabited with a partner (65.7%). More than a quarter of the participants consulted a general practitioner (28.1%) and nearly 15% consulted a mental health professional in the four weeks prior to the study. Independent samples  $t$  tests and chi-squared tests indicated that the intervention group and the waitlist control group did not significantly differ regarding demographics, health care use or outcome measures at baseline ( $p \geq .06$ ), indicating a successful randomization.

## Intervention

**Self-help book.** Participants in the experimental condition received the self-help book *Compassion as Key to Happiness* (Hulsbergen & Bohlmeijer, 2015) at their home address. The book comprises seven lessons based on the CFT approach (Gilbert, 2014). The main focus of the intervention was to promote well-being through strengthening compassionate attributes and skills,

such as the motivation to care for one's own well-being and the ability to tolerate distress. Each lesson consists of psycho-educational information on an important aspect of compassion and several exercises (see Table 2 for an overview). A broad variety of self-reflective and experiential exercises were offered to participants. Some examples include mindful breathing, keeping a diary of self-critical thoughts, visualizing one's ideal compassionate self and writing a letter wherein one expresses compassion for someone else. Per lesson, one exercise was suggested as core exercise. The core exercises of the first four chapters were also offered in the form of audio exercises via e-mail. Participants were instructed to complete one lesson per week in sequential order and had nine weeks in total to work through the book. Although they were encouraged to try different exercises, participants were free to choose whatever exercises they felt were appropriate given their personal situation as well as to decide how much time to spend on these exercises.

**E-mail guidance.** Participants in the intervention group received weekly e-mail guidance, with the goal to improve adherence and encourage participants to practice compassion in everyday life. Multiple studies have demonstrated that psychological self-help with minimal guidance is more effective compared with unguided self-help (Cuijpers & Schuurmans, 2007; Gellatly et al., 2007). E-mail guidance was found successful in several previous studies (Fledderus, Bohlmeijer, Pieterse, & Schreurs, 2012; Schotanus-Dijkstra, Drossaert et al., 2017).

E-mail guidance was provided by M. P. J. Sommers-Spijkerman, two psychology graduates and two psychology master's students, who were trained and supervised by two experienced health care psychologists (third and last author). To warrant intervention integrity, the counselors and supervisors met once a week for supervision, during the intervention phase, to discuss specific topics as well as cases brought in by the counselors. Allocation of the counselors to participants was randomized (www.random.org).

The participants were asked to introduce themselves before the e-mail sessions started. Subsequently, participants were requested to send an e-mail about their progress and experiences once a week, generally after completing a lesson. There was no fixed format for the e-mails and participants could decide for themselves which experiences they wanted to share and which not. Participants were informed that they would receive a response from their counselor on a fixed day of the week (each Wednesday). In an attempt to reduce intervention drop-out, the counselor sent the participant a maximum of two reminders when no e-mail was received. The e-mails were aimed at: (a) positively reinforcing the participant; (b) answering questions about the information or exercises; (c) advising participants on how to cope with particular struggles; and (d) introducing next weeks' theme.

## Waitlist Control Condition

Participants in the waiting list control group were not offered an intervention, but were free to access other forms of self-help/treatment, as were all participants. After the 3-month follow-up, participants in this group received the CFT self-help intervention without e-mail counseling to be able to test the added value of the e-mail counseling in terms of effectiveness of the intervention.

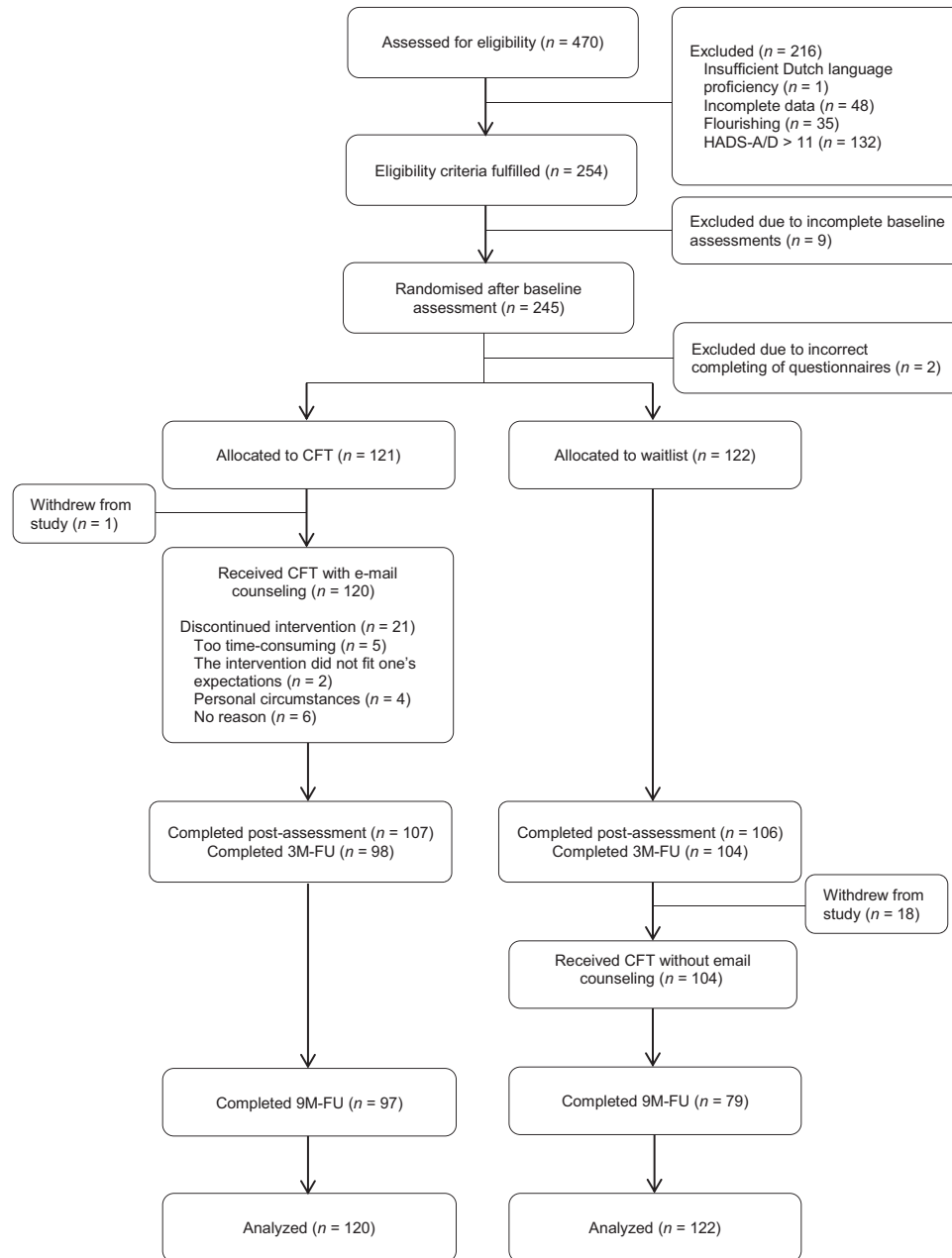


Figure 1. Flowchart of study participants and dropouts.

## Measures

**Primary outcome.** Well-being in the past month was measured with the 14-item Mental Health Continuum–Short Form (MHC-SF; Keyes, 2002; Lamers et al., 2011). The MHC-SF measures three dimensions of well-being: (1) emotional well-being (three items), which relates to positive emotions and life satisfaction; (2) psychological well-being (six items), which relates to optimal individual functioning; and (3) social well-being (five items), which relates to one's functioning in society. Responses are rated on a six-point Likert scale. In this study, the total scale scores as well as the independent subscale scores

were used. Higher scores indicate a greater sense of well-being. Also, a categorical scoring was used, whereby people are divided into flourishers (i.e., score of 4 or 5 on  $\geq 1$  items of the emotional well-being scale and score of 4 or 5 on  $\geq 6$  items of the social and psychological well-being scales) and nonflourishers. Previous research showed good psychometric properties for the MHC-SF (Lamers et al., 2011).

**Secondary outcomes.** The frequency of depressive and anxiety symptoms over the past week was assessed with the 14-item Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). For both the depression and anxiety subscale, total

Table 1  
Baseline Characteristics of the Participants ( $N = 242$ )

Characteristic	Total ( $N = 242$ )	CFT ( $n = 120$ )	WLC ( $n = 122$ )
Age, years			
Mean ( <i>SD</i> )	52.87 (9.99)	52.83 (9.78)	52.90 (10.22)
Range	20–78	20–78	26–78
Gender, $n$ (%)			
Male	61 (25.2)	24 (20.0)	37 (30.3)
Female	181 (74.8)	96 (80.0)	85 (69.7)
Nationality, $n$ (%)			
Dutch	242 (100.0)	120 (100.0)	122 (100.0)
Other	—	—	—
Marital status, $n$ (%)			
Married/registered partnership	131 (54.1)	62 (51.7)	69 (56.6)
Not married (never married, divorced, widowed)	111 (45.9)	58 (48.3)	53 (43.4)
Living situation, $n$ (%)			
With partner	159 (65.7)	76 (63.3)	83 (68.0)
Without partner	83 (34.3)	44 (36.7)	39 (32.0)
Education level (highest level completed), $n$ (%)			
Low (primary school, lower vocational education)	1 (.4)	—	1 (.8)
Intermediate (secondary school, vocational education)	28 (11.6)	17 (14.2)	11 (9.0)
High (higher vocational education, university)	213 (88.0)	103 (85.8)	110 (90.2)
Work situation, $n$ (%)			
Paid employment	184 (76.0)	92 (76.7)	92 (75.4)
No paid employment	53 (21.9)	25 (20.8)	28 (23.0)
Student	5 (2.1)	3 (2.5)	2 (1.6)
Healthcare use in four weeks prior to baseline, $n$ (%)			
General practitioner	68 (28.1)	32 (26.7)	36 (29.5)
Company doctor	13 (5.4)	8 (6.7)	5 (4.1)
Psychologist, psychiatrist or mental health service	35 (14.5)	14 (11.7)	21 (17.2)
Self-help group	3 (1.2)	1 (.8)	2 (1.6)
Social worker	3 (1.2)	2 (1.7)	1 (.8)
Addiction care	—	—	—
Alternative healer	38 (15.7)	17 (14.2)	21 (17.2)

Note. CFT = compassion focused therapy; WLC = waitlist control group.

scores range from 0 to 21. Higher scores indicate more depressive- or anxiety symptoms. The HADS has been shown to be a valid and reliable instrument (Spinoven et al., 1997; Stern, 2014).

The 10-item Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) was used to measure stress in the past month (total score 0–40). A higher score reflects a higher level of stress. Previous research indicates satisfactory psychometric properties (Lee, 2012).

The Forms of Self-Criticizing/Attacking and Self-Reassuring Scale (FSCRS; Gilbert et al., 2004) was used to examine overall levels of self-criticism and self-reassurance. The scale consists of three subscales: (1) inadequate self (nine items, total score 0–36), defined in terms of feelings of inadequacy and inferiority; (2) hated self (five items, total score 0–20), defined in terms of feelings of self-hatred and self-contempt; and (3) reassured self (eight items, total score 0–32), defined as the ability to soothe oneself when encountering stress or failure. Higher scores indicate a higher level of self-criticism or self-reassurance. Multiple studies indicate that the FSCRS has good reliability and construct validity (Baião, Gilbert, McEwan, & Carvalho, 2015; Castilho, Pinto-Gouveia, & Duarte, 2015; Gilbert et al., 2004; Kupeli, Chilcot, Schmidt, Campbell, & Troop, 2013).

The extent to which participants generally feel compassionate toward themselves was assessed with the 12-item Self-Compassion Scale–Short Form (SCS-SF; Neff, 2003; Raes, Pommer, Neff, & Van Gucht, 2011). The total score varies between 12

and 84, with higher scores reflecting higher levels of self-compassion. In this study, separate scores for the positively and negatively formulated items were calculated as well (López et al., 2015). Previous research has shown that the SCS-SF has adequate psychometric qualities (Raes et al., 2011).

The extent to which participants generally experience positive and negative affect in daily life was examined with the 20-item Positive and Negative Affect Schedule which has shown adequate internal consistency, test–retest reliability and construct validity (PANAS; Boon & Peeters, 1999; Crawford & Henry, 2004; Peeters, Ponds, & Vermeeren, 1996; Watson, Clark, & Tellegen, 1988). The scale consists of two subscales measuring positive and negative affect (both 10 items). Subscale scores range from 10 to 50.

The six-item Gratitude Questionnaire (GQ6) was used to measure the overall experience of gratitude in participants' daily life (Jans-Beken, Lataster, Leontjevas, & Jacobs, 2015). Scores range from 6 to 42, with higher scores indicating a greater sense of gratitude. Previous research shows that the GQ6 has satisfactory reliability and construct validity (Jans-Beken et al., 2015).

**Adherence and satisfaction with the intervention.** Participants were considered adherent if they completed all seven lessons. To gain insight in adherence as well as the feasibility and acceptability of the intervention, several questions were administered among the intervention group at postintervention. These questions relate to among others satisfaction with the contents of the intervention,

Table 2  
Schematic Overview of the CFT Intervention

Lessons	Objectives	Exercises
1. Chronic stress and the importance of compassion	To gain insight into the concept and relevance of compassion.	Exercises that aim to provide more insight into your stress level and what compassion entails (e.g. body scan).
2. Emotion systems and their link to compassion	To learn that at the core of compassion is the need to balance the three emotion systems.	Exercises to learn relaxation techniques in order to soothe oneself in the face of stress (e.g. soothing breathing).
3. From self-criticism to self-kindness	To gain knowledge about self-criticism and its relation to stress and well-being.	Exercises aimed at learning to recognize and change self-critical thinking (e.g. loving self-correction, diary of self-critical thoughts).
4. Identifying and using resources for compassion	To gain insight into resources underlying compassion. In particular, attention is paid to the concept of gratitude.	Exercises focused on cultivating and strengthening a supportive and loving attitude towards oneself (e.g. compassionate imagery, 3 good things).
5. Compassion for childhood experiences	To gain awareness how childhood experiences contribute to the ways in which we act/respond in particular situations.	Exercises to learn to be compassionate towards painful emotions and to recognize and change dysfunctional reaction patterns (e.g. forgiving others).
6. Addressing circumstances that contribute to chronic stress	To become more sensitive to our own needs and distress and engage in self-compassionate behaviours. Specific attention is paid to compassionate communication with others.	Exercises aimed at gaining insight into one's personal needs, learning to communicate effectively about these needs and undertaking actions to change adverse life circumstances (e.g. visualizing life changes). Other exercises invite participants to be playful and explorative again.
7. Compassion for others	To gain awareness how self-compassion fosters compassion for others, which, in turn, further enhances happiness and well-being.	Exercises aimed at acquiring skills to facilitate more compassionate attitudes and behaviours towards others (e.g. act of kindness).

Note. CFT = compassion focused therapy.

time spent on the intervention per week, completion of each lesson, barriers and facilitators to completion of the intervention, and perceived changes over the course of the intervention. Overall satisfaction with the information in the self-help book, exercises, e-mail guidance, and intervention as a whole was rated on a Likert scale ranging from 1 (*extremely poor*) to 10 (*excellent*). In addition, participants were invited to provide suggestions for improvement of the intervention. At 9-month follow-up, a similar evaluation questionnaire was administered among the control condition who received the intervention after 3-month follow-up.

**Health care use.** Health care use was examined at baseline, postintervention, and 3-month follow-up using a modified version of the iMTA Medical Consumption Questionnaire (Bouwman et al., 2013). Participants were asked to indicate whether or not they used one of the following health care services in the past 4 weeks: general practitioner, company doctor, mental health professional (e.g., psychologist, psychiatrist), self-help group, social worker, addiction care, or alternative healer (e.g., acupuncturist).

**Moderators.** Multiple baseline characteristics were explored as potential moderators of the effects of the intervention in the experimental group versus the control group, including sociodemographic characteristics (i.e., age, gender, marital status, living- and work situation, educational level), psychological resources (i.e., levels of primary and secondary outcomes), and the occurrence of positive and negative life events in the past 12 months as determined with a modified version of the Brugha life-events section (Brugha, Bebbington, Tennant, & Hurry, 1985).

### Sample Size

Using G\*Power 3.1.9.2, a minimum sample size of 164 (82 per group) was estimated for detecting a small Time  $\times$  Group inter-

action effect (Cohen's  $d = 0.20$ ) for the primary outcome in a repeated measures analysis of variance (ANOVA) with two groups and three points of measurement (i.e., baseline to 3-month follow-up), assuming 80% power, a significance level of 5% and a correlation of 0.5 between measures. Anticipating a 20% dropout rate, 206 participants were needed.

To minimize drop out from the study, different strategies were used, such as sending e-mail reminders for completing questionnaires. Additionally, five gift cards worth 50 euros, 20 gift cards worth 20 euros, and 50 gift cards worth 10 euros to be spent at an online store were raffled among participants who completed all assessments, regardless of allocation group.

### Randomization and Blinding

Randomization in a 1:1 ratio took place following the baseline assessment, and was carried out by M. P. J. Sommers-Spijkerman using an a priori computer-generated random allocation sequence ([www.random.org](http://www.random.org)). Blinding of participants was not possible as participants needed to be informed whether they could start with the intervention immediately or after 6 months.

### Statistical Analyses

Analyses were conducted using SPSS version 23.0 unless otherwise indicated. There were no missing data at baseline. At postintervention and 3- and 9-month follow-up, the total percentage of missing data was 12.0%, 16.5%, and 27.3%, respectively. Independent samples  $t$  tests and chi-squared tests were used to determine baseline differences between participants with and without missing values on any of the assessments. For each measurement, chi-square tests were used to test whether the number of dropouts differed between the experimental and control condition.

Because both conditions could access other treatment and self-help resources, we assessed the rate of such usage per condition and tested whether usage rates significantly differed per condition using chi-square tests. Participants with missing values were excluded from these analyses.

The intervention outcomes were analyzed according to the intention-to-treat (ITT) principle, whereby missing data on the continuous measures at postintervention and 3- and 9-month follow-up were imputed with the expectation-maximization method (Dempster, Laird, & Rubin, 1977; El-Masri & Fox-Wasylyshyn, 2005), as well as for completers only (i.e., excluding participants with missing values). We only report ITT findings, unless completers analyses revealed considerably divergent results.

For each outcome measure, the effectiveness of the compassion intervention relative to waiting list was examined by means of repeated measures analysis of variance (ANOVA). To determine differential changes from baseline to postintervention and from baseline to 3-month follow-up, a 2 (time)  $\times$  2 (group) ANOVA and a 3 (time)  $\times$  2 (group) ANOVA was used, respectively. As additional analyses, using transformed data of PANAS, HADS, and FSCRS subscales showing substantial positive skewness at the first three measurements, showed similar results, we only report the former. To indicate the magnitude of the difference between the experimental group (exp) and the waitlist control group (ctr) with regard to primary and secondary outcome measures, effect sizes (Cohen's *d*) were calculated per assessment (except for the 9-month follow-up) using the following formula:  $(M_{\text{exp}} - M_{\text{ctr}})/\sqrt{(SD_{\text{exp}}^2 + SD_{\text{ctr}}^2)/2}$ . The corresponding 95% confidence intervals (CIs) were calculated using the compute.es package in R version 3.3.1. Effect sizes up to .32 were considered small, .33 to .55 moderate, and .56 to 1.20 large (Lipsey & Wilson, 1993).

Following recommendations of Jacobson and Truax (1991) and Evans, Margison, and Barkham (1998), we also examined reliable and clinically significant changes at the individual level with respect to our primary outcome. Within-person changes on the MHC-SF (total well-being) from baseline to postintervention (3-month follow-up) were evaluated using the reliable change index (RCI). The RCI indicates whether changes in MHC-SF scores are beyond changes that could be due to measurement error and is calculated as  $1.96 \times S_{\text{diff}}$ , wherein  $S_{\text{diff}}$  is the standard error of the difference between the participant's baseline and postintervention (3-month follow-up) score.  $S_{\text{diff}}$  was computed as follows:  $SD_1 \times \sqrt{2} \times \sqrt{(1-\alpha)}$ , where  $\alpha$  is Cronbach's alpha coefficient of the MHC-SF at baseline and  $SD_1$  is the standard deviation of the entire sample at baseline. In the present study, the RCI for the MHC-SF was .72. Consequently, changes, up or down, greater than .72 were regarded as reliable. Additionally, we determined the proportion of participants who showed a clinically meaningful change on the MHC-SF, through evaluating participants' postintervention (3-month follow-up) scores on total well-being against the normative data of a large, representative sample of 1,662 Dutch respondents as reported in Lamers, Westerhof, Bohlmeijer, ten Klooster, and Keyes (2011). A cut-off score of 3.09 was computed, using the formula  $(M_1 \times SD_2 + M_2 \times SD_1)/(SD_1 + SD_2)$ ; i.e., criterion C in Evans et al., 1998).  $M_1$  and  $SD_1$ , respectively, are the baseline mean and *SD* of the sample in the present study while  $M_2$  and  $SD_2$  are the mean and *SD* of the normative sample. If a participant obtained a MHC-SF score  $\geq 3.09$  at postintervention or 3-month follow-up, it was deemed likely that he or she moved to the normative

distribution, hence clinically meaningful improvement was assumed. To compare the proportion of participants who showed both reliable and clinically meaningful improvement on the MHC-SF per condition at postintervention and 3-month follow-up, chi-square tests were performed and odds ratios (*OR*) were calculated. Similarly, we compared the proportion of flourishing participants per condition at baseline, postintervention, and 3-month follow-up.

Moderation analyses were conducted using the PROCESS macro for SPSS (Hayes, 2012). Each potential moderator was grand mean centered in order to minimize the risk of multicollinearity (Aiken & West, 1991). MHC-SF change scores (baseline to postintervention or baseline to 3-month follow-up) were entered as the dependent variable. The intervention dummy variable (intervention = 1, waitlist = 0), the centered potential moderator in concern, and the intervention by centered moderator interaction term were entered as independent variables. In case of a significant interaction effect, the variable in concern was interpreted as a moderator of change.

Changes from 3- to 9-month follow-up in the intervention group were analyzed, using paired samples *t* tests, in order to assess effect maintenance. As a sensitivity analysis, Wilcoxon signed-ranks test were conducted for the depression subscale of the HADS, the negative affect subscale of the PANAS and the hated self subscale of the FSCRS, which were shown substantially positively skewed at 9-month follow-up.

With regard to the effectiveness of CFT over a 6-month interval, we explored the added value of the e-mail counseling through comparing the effects of the *guided* CFT self-help intervention delivered to the experimental condition with the effects of the *unguided* CFT self-help intervention delivered to the waiting list control condition after the 3-month follow-up measurement. Independent samples *t* tests and two-stage hierarchical multiple regression analyses were conducted per outcome measure. Baseline to 3-month follow-up change scores and 3- to 9-month follow-up change scores were used as the dependent variable for the experimental condition (i.e., CFT with e-mail counseling) and the waitlist control condition (i.e., CFT without e-mail counseling), respectively. In the first step of the regression analysis, the intervention dummy variable (intervention = 1, waitlist = 0) was entered as independent variable. In the second step, the preintervention score on the respective outcome measure was entered as independent variable (i.e., control variable). Additionally, effect sizes were computed for both conditions separately as to indicate differences in the magnitude of the effects of CFT with and without e-mail counseling. The following formula was used:  $(M_{\text{post}} - M_{\text{pre}})/\sqrt{(SD_{\text{post}}^2 + SD_{\text{pre}}^2)/2}$ .

For all analyses, we used a significance level of  $p < .05$ .

## Results

### Attrition, Adherence, and Satisfaction With the Intervention

At postintervention, 3-month follow-up, and 9-month follow-up, data were available for 213, 202, and 176 participants, respectively. While no significant differences in dropout rates occurred at postintervention,  $\chi^2(1, 242) = .30, p = .585$ , and 3-month follow-



up,  $\chi^2(1, 242) = .56, p = .454$ , at 9-month follow-up dropout was significantly lower in the intervention group ( $n = 23$ ) compared with the control group ( $n = 43$ ),  $\chi^2(1, 242) = 7.89, p = .005$ . There were no significant baseline differences between participants with and without missing values on any of the assessments ( $p \geq .23$ ).

In the intervention group, the number of starters (107 vs. 49,  $\chi^2(1, 185) = 47.18, p < .001$ ) and adherers (89 vs. 17,  $\chi^2(1, 185) = 72.14, p < .001$ ) was significantly higher than in the control group when they received the intervention. Participants in the intervention group also spent significantly more time on the intervention, on average 3.1 hr a week ( $SD = 1.8, n = 106$ ) compared with 2.2 hr a week ( $SD = 2.4, n = 50$ ) in the control group,  $t(154) = -2.83, p = .005$ , and completed significantly more lessons ( $M = 6.6, SD = 1.0, n = 106$ ) compared with participants in the waitlist control group ( $M = 2.3, SD = 2.8, n = 79$ ),  $t(93.7) = -13.09, p < .001$ .

In the CFT group, the information in the self-help book, the exercises, the e-mail guidance, and the intervention as a whole were rated with a 7.7 ( $SD = 1.2, n = 107$ ), 7.2 ( $SD = 1.3, n = 106$ ), 7.3 ( $SD = 1.6, n = 106$ ), and 7.7 ( $SD = 1.2, n = 106$ ), respectively.

### Additional Health Care Use

At baseline, postintervention, and 3-month follow-up, the most frequently consulted health care services were the general practitioner (25.7%–28.1%), followed by alternative healers (10.8%–16.8%). Mental health professionals were seen by less than 15% of participants (10.9%–14.5%). Chi-square tests revealed that there were no significant differences in reported health care use between the experimental condition and the control condition at baseline ( $n = 242, p \geq .292$ ), postintervention ( $n = 213, p \geq .314$ ), and 3-month follow-up ( $n = 202, p \geq .100$ ).

### Intervention Effects and Moderators

Between baseline and postintervention, the intervention group improved significantly on all outcome measures ( $p < .001$ ). The waitlist control group showed significant improvements on a number of outcomes, including anxiety symptoms, depressive symptoms, negative affect, stress, self-reassurance, self-compassion, and self-criticism (i.e., FSCRS—inadequate self and SCS-SF—negative subscale;  $p \leq .030$ ). For all outcomes, significant Time  $\times$  Group interactions were found (see Table 3) from baseline to postintervention, whereby the intervention group improved significantly more on all outcome measures compared to the waitlist control group. Between baseline and 3-month follow-up, the intervention group improved significantly on all outcome measures ( $p < .001$ ) and the waitlist control group on nearly all outcomes ( $p \leq .035$ ) except for hated self ( $p = .172$ ). Only for positive affect, no significant Time  $\times$  Group interaction was found between baseline and 3-month follow-up, though the results almost reached statistical significance ( $p = .051$ ). For most outcome measures, moderate to large effect sizes were observed for the intervention group relative to the waitlist control group. From postintervention to 3-month follow-up, the intervention group exhibited significant improvements on emotional well-being,  $t(119) = -2.10, p = .038$ , and self-criticism as measured with the

inadequate self subscale of the FSCRS,  $t(119) = 3.93, p < .001$ , and the negative subscale of the SCS-SF,  $t(119) = 2.29, p = .024$ . With regard to the remaining outcome measures, no significant changes were observed, indicating that the initial effect was maintained. At both postintervention ( $p \geq .122$ ) and 3-month follow-up ( $p \geq .154$ ), no significant interaction effects were observed for any of the potential moderators (see supplemental Table 6).

### Reliable and Clinically Significant Changes in Well-Being

With regard to the primary outcome, analyses at the individual level showed that 26 CFT participants (21.7%) showed reliable and clinical improvement at postintervention (see Table 4). In the waitlist control group, this was eight (6.6%). At 3-month follow-up, 22.5% ( $n = 27$ ) showed a clinically meaningful and reliable change on well-being versus 11.5% ( $n = 14$ ) in the control group. The proportion of participants who showed both reliable and clinically significant changes on the MHC-SF was significantly greater in the experimental condition at both postintervention,  $\chi^2(1, 242) = 11.44, p = .001$ , and 3-month follow-up,  $\chi^2(1, 242) = 5.23, p = .02$ . The corresponding odds ratios are 3.9, 95% CI [1.71, 9.11], and 2.2, 95% CI [1.11, 4.52], respectively. A completers analysis revealed odds ratios of 5.8, 95% CI [2.12, 16.06], and 2.2, 95% CI [1.03, 4.72], for the postintervention and 3-month follow-up assessment, respectively.

### Impact on Flourishing

At baseline, the proportion of flourishers was smaller in the experimental group than in the control group (3.3% vs. 9.0%) although, this difference was not statistically significant,  $\chi^2(1, 242) = 3.36, p = .067$ . Significantly more flourishers were observed in the experimental group compared to the control group at postintervention, 27.5% versus 12.3%,  $\chi^2(1, 242) = 8.80, p = .003$ , as well as at 3-month follow-up, 30.0% versus 17.2%,  $\chi^2(1, 242) = 5.49, p = .019$ . The corresponding odds ratios are 2.7, 95% CI [1.37, 5.24], and 2.0, 95% CI [1.11, 3.75], respectively.

### Long-Term Effects

ITT findings indicated significant improvements in the intervention group from 3- to 9-month follow-up with regard to positive emotions,  $t(119) = -2.65, p = .009$ , and stress,  $t(119) = 2.41, p = .017$ . For depressive symptoms, self-compassion (i.e., SCS-SF total score) and self-criticism (i.e., SCS-SF negative subscale score), paired samples  $t$  tests did not indicate significant improvements ( $p \geq .131$ ), as opposed to Wilcoxon signed-ranks test ( $p \leq .018$ ). The remaining outcomes did not yield significant changes, indicating that the initial effects were sustained. In a completers analysis, significant improvements were only observed for stress,  $t(91) = 2.30, p = .024$ .

At 9-month follow-up, 31.7% of CFT participants was flourishing (completers analysis: 39.1%). Clinically significant and reliable improvements in well-being were reported by 36 CFT participants (30.0%, see Table 4). In a completers analysis, this was 38.0%.

Table 3  
Means, SDs, Effect Sizes and Analysis of Variance

Measures	Assessment	CFT (n = 120)	WLC (n = 122)	Cohen's d [95% CI]	ANOVA: F <sup>a</sup>		
		Mean (SD)	Mean (SD)		Time	Group	Time × Group
MHC-total	Baseline	2.35 (.65)	2.48 (.66)				
	Post	2.94 (.73)	2.58 (.67)	.51 [.25, .77]	80.93***	2.23	41.74***
	3M-FU	3.01 (.71)	2.74 (.68)	.39 [.13, .65]	73.02***	5.06*	21.99***
	9M-FU	3.02 (.84)					
MHC-EW	Baseline	2.72 (.83)	2.81 (.75)				
	Post	3.24 (.78)	2.89 (.83)	.43 [.17, .69]	38.36***	2.04	20.48***
	3M-FU	3.39 (.71)	3.08 (.80)	.41 [.15, .67]	44.34***	5.43*	11.85***
	9M-FU	3.39 (.95)					
MHC-PW	Baseline	2.42 (.77)	2.54 (.75)				
	Post	3.14 (.83)	2.66 (.79)	.59 [.33, .85]	85.33***	3.94*	43.66***
	3M-FU	3.18 (.81)	2.90 (.78)	.35 [.09, .61]	75.34***	6.11*	20.91***
	9M-FU	3.20 (.91)					
MHC-SW	Baseline	2.05 (.73)	2.21 (.79)				
	Post	2.52 (.83)	2.29 (.79)	.28 [.03, .53]	34.76***	.15	17.79***
	3M-FU	2.58 (.81)	2.34 (.78)	.30 [.05, .55]	28.62***	1.44	11.80***
	9M-FU	2.59 (.92)					
HADS-D	Baseline	6.39 (3.26)	6.30 (3.06)				
	Post	4.17 (3.33)	5.73 (3.42)	.46 [.20, .72]	44.40***	4.10*	15.58***
	3M-FU	4.05 (3.00)	5.11 (3.45)	.33 [.08, .58]	39.39***	6.14*	8.18***
	9M-FU	3.77 (3.47)					
HADS-A	Baseline	8.13 (2.94)	7.97 (2.99)				
	Post	6.01 (3.22)	7.26 (3.27)	.39 [.13, .65]	54.44***	2.39	13.54***
	3M-FU	5.57 (2.68)	6.85 (3.38)	.42 [.16, .68]	49.95***	5.74*	9.22***
	9M-FU	5.43 (3.04)					
PSS	Baseline	19.46 (5.09)	19.48 (4.99)				
	Post	15.45 (5.04)	18.14 (5.19)	.53 [.27, .79]	70.69***	5.63*	17.65***
	3M-FU	15.63 (4.53)	17.12 (5.65)	.29 [.04, .54]	51.95***	6.88**	8.28***
	9M-FU	14.55 (5.51)					
SCS-SF-total	Baseline	43.63 (11.56)	43.92 (12.59)				
	Post	54.50 (10.44)	48.05 (12.11)	.57 [.31, .83]	148.66***	5.04*	30.09***
	3M-FU	55.68 (10.59)	49.23 (12.41)	.56 [.30, .82]	127.04***	9.95**	21.73***
	9M-FU	56.76 (11.39)					
SCS-SF-pos	Baseline	24.46 (6.21)	24.63 (6.50)				
	Post	29.41 (5.35)	26.80 (6.12)	.45 [.19, .71]	101.39***	3.18	16.16***
	3M-FU	29.49 (5.43)	27.34 (6.26)	.37 [.11, .63]	78.65***	5.49*	9.85***
	9M-FU	30.24 (5.75)					
SCS-SF-neg	Baseline	28.83 (7.38)	28.71 (7.67)				
	Post	23.08 (6.97)	26.78 (7.66)	.51 [.25, .77]	95.07***	4.37*	24.65***
	3M-FU	22.05 (7.12)	26.30 (7.99)	.56 [.30, .82]	89.66***	9.48**	22.13***
	9M-FU	21.47 (6.99)					
FSCRS-IS	Baseline	18.47 (7.29)	18.46 (6.66)				
	Post	14.58 (6.03)	17.19 (6.97)	.40 [.14, .66]	43.93***	2.82	11.39**
	3M-FU	12.70 (5.85)	16.45 (7.67)	.55 [.29, .81]	54.21***	7.91**	12.87***
	9M-FU	12.79 (5.80)					
FSCRS-HS	Baseline	3.73 (3.13)	3.64 (2.76)				
	Post	2.44 (2.74)	3.27 (2.90)	.29 [.04, .54]	24.87***	1.25	7.80**
	3M-FU	2.29 (2.48)	3.31 (2.97)	.37 [.11, .63]	17.35***	3.63	6.27**
	9M-FU	2.25 (2.28)					
FSCRS-RS	Baseline	16.18 (4.99)	16.34 (5.03)				
	Post	19.46 (4.75)	17.20 (5.25)	.45 [.19, .71]	65.03***	3.15	22.03***
	3M-FU	20.04 (4.80)	17.75 (5.23)	.46 [.20, .72]	51.92***	6.76*	13.27***
	9M-FU	20.00 (4.95)					
PANAS-PA	Baseline	32.57 (5.80)	31.99 (6.06)				
	Post	35.00 (5.86)	32.67 (6.14)	.39 [.13, .65]	21.96***	4.41*	6.99**
	3M-FU	35.14 (5.12)	33.55 (5.80)	.29 [.04, .54]	17.97***	5.83*	3.01
	9M-FU	36.20 (5.47)					

(table continues)

Table 3 (continued)

Measures	Assessment	CFT ( <i>n</i> = 120)	WLC ( <i>n</i> = 122)	Cohen's <i>d</i> [95% CI]	ANOVA: <i>F</i> <sup>a</sup>		
		Mean ( <i>SD</i> )	Mean ( <i>SD</i> )		Time	Group	Time × Group
PANAS-NA	Baseline	22.35 (6.07)	22.24 (5.69)				
	Post	19.12 (5.55)	21.12 (6.06)	.34 [.08, .60]	37.21***	2.05	8.67**
	3M-FU	18.55 (4.81)	20.45 (5.87)	.35 [.09, .61]	35.92***	4.26*	5.86**
	9M-FU	18.32 (5.81)					
GQ6-NL	Baseline	30.78 (5.68)	30.59 (5.89)				
	Post	33.29 (5.20)	31.28 (5.01)	.39 [.13, .65]	35.74***	2.88	11.46**
	3M-FU	34.05 (5.14)	31.73 (5.09)	.45 [.19, .71]	30.41***	6.34*	7.72**
	9M-FU	33.77 (4.74)					

Note. ANOVA = analysis of variance; 3M-FU = 3-month follow-up; 9M-FU = 9-month follow-up; CFT = compassion focused therapy; CI = confidence interval; EW = emotional well-being; FSCRS = Forms of Self-Criticizing/Attacking and Self-Reassuring Scale; GQ6-NL = Gratitude Questionnaire; HADS-A = Hospital Anxiety and Depression Scale–Anxiety; HADS-D = Hospital Anxiety and Depression Scale–Depression; HS = hated self; IS = inadequate self; MHC-SF = Mental Health Continuum–Short Form; NA = negative affect; PA = positive affect; PANAS = Positive and Negative Affect Schedule; PSS = Perceived Stress Scale; PW = psychological well-being; RS = reassured self; SCS-SF = Self-Compassion Scale–Short Form; SW = social well-being; WLC = waitlist control group.

<sup>a</sup> When sphericity is not assumed, Greenhouse-Geisser results are reported.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

### Effects of CFT With/Without E-mail Counseling

Following 3-month follow-up, participants in the waitlist control group received the CFT intervention without e-mail counseling. Results showed that after 6 months (i.e., at 9-month follow-up), waitlist control participants showed significant improvements on nearly all outcomes ( $p \leq .012$ , Cohen's  $d$ : 0.19–0.63) except for gratitude,  $t(121) = -1.56$ ,  $p = .122$ . Participants in the intervention group—who had received CFT with e-mail counseling—demonstrated significant improvements on all outcomes ( $p < .001$ ) after 6 months, with effect sizes ranging between 0.47 and 1.09. A comparison of the effects of CFT with and without e-mail counseling over a 6-month interval (i.e., baseline to 3-month follow-up changes in the intervention group vs. 3- to 9-month follow-up changes in the waitlist control group) revealed that those who received CFT with counseling (i.e.,

intervention group) reported significantly greater improvements on all outcome variables, except for hated self. When controlling for pre-intervention scores on the respective outcomes, participants who received CFT with e-mail counseling (i.e., the intervention group) were found to exhibit significantly greater improvements on total/emotional/social well-being, anxiety symptoms, self-compassion, self-criticism (as measured with the SCS-SF), self-reassurance, and gratitude. For the remaining outcomes, no significant differences were found between CFT with and without e-mail counseling (see Table 5).

### Discussion

To our knowledge, this RCT is the first to evaluate the effectiveness of CFT as guided self-help in the context of public mental health. In a large adult community sample with low to moderate

Table 4

Reliable and Clinically Significant Changes on the MHC-SF (Well-Being)

Reliable and/or clinical significant change	CFT ( <i>n</i> = 120)			WLC ( <i>n</i> = 122)		
	Post <i>n</i> (%)	3M-FU <i>n</i> (%)	9M-FU <i>n</i> (%)	Post <i>n</i> (%)	3M-FU <i>n</i> (%)	9M-FU <i>n</i> (%)
Reliable change	50 (41.7)	52 (43.3)	64	25 (20.5)	30 (24.6)	49 (40.2)
Maintained reliable change <sup>a</sup>	—	32 (26.7)	44 (36.7)	—	12 (9.8)	24 (19.7)
Gained reliable change <sup>a</sup>	—	20 (16.7)	20 (16.7)	—	18 (14.8)	25 (20.5)
Did not improve on reliable change <sup>a</sup>	—	50 (41.7)	48 (40.0)	—	79 (64.8)	67 (54.9)
Lost reliable change <sup>a</sup>	—	18 (15.0)	13 (6.7)	—	13 (10.7)	6 (4.9)
Clinically significant change	47 (39.2)	46 (38.3)	52 (43.3)	27 (22.1)	38 (31.1)	37 (30.3)
Maintained clinically significant change <sup>a</sup>	—	34 (28.3)	37 (30.8)	—	17 (13.9)	23 (18.9)
Gained clinically significant change <sup>a</sup>	—	12 (10.0)	15 (12.5)	—	21 (17.2)	14 (11.5)
Did not improve on clinically significant change <sup>a</sup>	—	61 (50.8)	59 (49.2)	—	74 (60.7)	70 (57.4)
Lost clinically significant change <sup>a</sup>	—	13 (10.8)	9 (7.5)	—	10 (8.2)	15 (12.3)
Reliable and clinically significant change	26 (21.7)	27 (22.5)	36 (30.0)	8 (6.6)	14 (11.5)	20 (16.4)
Maintained reliable and clinically significant change <sup>a</sup>	—	13 (10.8)	18 (15.0)	—	3 (2.5)	9 (7.4)
Gained reliable and clinically significant change <sup>a</sup>	—	14 (11.7)	18 (15.0)	—	11 (9.0)	11 (9.0)
Did not improve on reliable and clinically significant change <sup>a</sup>	—	80 (66.7)	75 (62.5)	—	103 (84.4)	97 (79.5)
Lost reliable and clinically significant change <sup>a</sup>	—	13 (10.8)	9 (7.5)	—	5 (4.1)	5 (4.1)

Note. 3M-FU = 3-month follow-up; 9M-FU = 9-month follow-up; CFT = compassion focused therapy; MHC-SF = Mental Health Continuum–Short Form; WLC = waitlist control group.

<sup>a</sup> Compared with previous measurement.

Table 5  
*Hierarchical Multiple Regression Analyses Comparing CFT With and Without E-Mail Support Over a 6-Month Interval*

Outcome variable <sup>d</sup>	Cohen's <i>d</i> [95% CI] <sup>a</sup>		Regression: Model 1 <sup>b</sup>				Regression: Model 2 <sup>c</sup>			
	CFT with counselling ( <i>n</i> = 120)	CFT without counselling ( <i>n</i> = 122)	<i>F</i>	$\beta^e$	<i>t</i>	<i>R</i> <sup>2</sup>	<i>F</i>	$\beta^e$	<i>t</i>	<i>R</i> <sup>2</sup>
MHC-total	.97 [.70, 1.24]	.32 [.07, .57]	31.31***	.34	5.60***	.12	52.00***	.21	3.75***	.30
MHC-EW	.87 [.60, 1.14]	.31 [.06, .56]	16.99***	.26	4.12***	.07	81.36***	.13	2.53*	.41
MHC-PW	.96 [.69, 1.23]	.63 [.37, .89]	8.55**	.19	2.92**	.03	57.19***	.10	1.86	.32
MHC-SW	.69 [.43, .95]	.24 [-.01, .49]	15.21***	.24	3.90***	.06	41.10***	.16	2.77**	.26
HADS-D	.75 [.49, 1.01]	.34 [.09, .59]	8.54**	-.19	-2.92**	.03	65.77***	-.08	-1.46	.36
HADS-A	.91 [.64, 1.18]	.36 [.11, .61]	15.00***	-.24	-3.87***	.06	109.13***	-.11	-2.34*	.48
PSS	.79 [.53, 1.05]	.38 [.13, .63]	6.86**	-.17	-2.62**	.03	89.14***	-.03	-.58	.43
SCS-SF-total	1.09 [.82, 1.36]	.43 [.17, .69]	26.81***	.32	5.18***	.10	65.75***	.20	3.72***	.36
SCS-SF-pos	.86 [.59, 1.13]	.30 [.05, .55]	18.13***	.27	4.26***	.07	75.17***	.14	2.62**	.39
SCS-SF-neg	.94 [.67, 1.21]	.49 [.23, .75]	14.48***	-.24	-3.81***	.06	55.08***	-.16	-2.91**	.32
FSCRS-IS	.87 [.60, 1.14]	.51 [.25, .77]	7.50**	-.17	-2.74**	.17	105.68***	-.09	-1.78	.69
FSCRS-HS	.51 [.25, .77]	.47 [.21, .72]	.53	-.05	-.72	.002	116.78***	.002	.05	.49
FSCRS-RS	.79 [.53, 1.05]	.38 [.13, .63]	10.58**	.21	3.25**	.04	57.86***	.12	2.29*	.33
PANAS-PA	.47 [.21, .73]	.19 [-.06, .44]	4.48*	.14	2.12*	.02	60.68***	.09	1.66	.34
PANAS-NA	.69 [.43, .95]	.35 [.10, .60]	7.77**	-.18	-2.79**	.03	102.18***	-.07	-1.51	.46
GQ6-NL	.60 [.34, .86]	.13 [-.12, .38]	19.17***	.27	4.38***	.07	60.48***	.23	4.29***	.34

*Note.* CFT = compassion focused therapy; CI = confidence interval; EW = emotional well-being; FSCRS = Forms of Self-Criticizing/Attacking and Self-Reassuring Scale; GQ6-NL = Gratitude Questionnaire; HADS-A = Hospital Anxiety and Depression Scale–Anxiety; HADS-D = Hospital Anxiety and Depression Scale–Depression; HS = hated self; IS = inadequate self; MHC-SF = Mental Health Continuum–Short Form; NA = negative affect; PA = positive affect; PANAS = Positive and Negative Affect Schedule; PSS = Perceived Stress Scale; PW = psychological well-being; RS = reassured self; SCS-SF = Self-Compassion Scale–Short Form; SW = social well-being.

<sup>a</sup> For the experimental condition (i.e. CFT with counselling), effect sizes were calculated for the change between baseline and 3-month follow-up (6-month interval). For the waitlist control group (i.e. CFT without counselling), effect sizes were calculated for the change between 3- and 9-month follow-up (6-month interval). <sup>b</sup> Predictor: condition. <sup>c</sup> Predictor: condition, controlled for preintervention score (i.e. baseline score for the experimental condition, 3-month follow-up score for the waitlist control condition). <sup>d</sup> For the experimental condition (CFT with e-mail counselling), baseline to 3-month follow-up change scores were used for the regression analyses. For the waitlist control condition (CFT without e-mail counselling), 3- to 9-month follow-up change scores were used for the regression analyses. <sup>e</sup> Standardized beta values are reported.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

levels of well-being, as hypothesized, the intervention yielded significant, improvements on all outcome measures, compared to a waitlist control group. For all outcomes but positive affect, the CFT intervention was superior to the waitlist control condition up to 6 months after baseline. Among CFT participants, the observed positive effects remained stable or further improved until 12 months after baseline. Effect sizes were predominantly in the moderate range ( $d$ : .28–.59). Whereas the prepost effect size for well-being in the current study was equal to the effect on well-being found for compassion-based interventions, including but not limited to CFT, in a recent meta-analysis of RCTs ( $d = .51$ ), effect sizes for indicators of psychological distress were somewhat smaller (depression:  $d = .46$  vs.  $d = .64$ ; anxiety:  $d = .39$  vs.  $d = .49$ ; Kirby, Tellegen, & Steindl, 2017). Moderator analyses showed there is no reason to assume that particular subgroups profit more or less from the intervention, suggesting that the intervention is suitable for a broad and heterogenic target population.

While former studies have demonstrated the effectiveness of CFT mainly in the context of attenuating suffering (Gilbert & Procter, 2006; Kelly & Carter, 2015), our findings underscore the value of CFT as a public mental health intervention. Not only did psychological distress reduce significantly, also the number of flourishers in the CFT group increased considerably, to 31.7% at the final assessment. This is an important finding since higher levels of well-being have been shown to elicit positive effects on,

among others, psychological symptomatology, quality of life, longevity, and health care use (Chida & Steptoe, 2008; Howell et al., 2007; Keyes, 2007; Keyes et al., 2010; Lamers et al., 2015; Ryff, 2014; Wood & Joseph, 2010). The present study thus indicates that CFT is an adequate intervention to support people in enhancing their well-being while reducing psychological distress, thereby corroborating the notion that CFT operates through a two-continua model (Huppert & Whittington, 2003; Keyes, 2005; Lamers et al., 2015).

Although the intervention group was superior in enhancing well-being, the waitlist control group still exhibited significant improvements on several outcome measures at postintervention and 3-month follow-up. Similarly, albeit to a lesser extent, in the control group we found a substantial increase in the number of flourishers between baseline and 3-month follow-up, from 9.0% to 17.2%. These findings may be partly attributable to a subject-expectancy effect. An offer of treatment is an offer of hope and may evoke certain outcome expectations, which, in turn, may have a powerful influence on (actual) treatment outcomes (Sotsky et al., 2006). Another possible explanation is that inclusion in the study may have urged participants to start thinking and acting in a more self-compassionate way before gaining access to the intervention.

Besides the use of a large sample and the inclusion of long-term follow-up data, a major strength of the current study lies in the feasibility and acceptability of the intervention. Participants were recruited in only 2 days, implying there is demand for such

interventions. Furthermore, the vast majority completed the entire intervention suggesting high commitment. The relatively high adherence rate may be partly accounted for by the autonomy-supportive nature of the intervention and the weekly e-mail guidance.

Regarding the latter, our data revealed that adherence was significantly higher among those who received the e-mail counseling compared to those who did not. Moreover, the intervention group—who received CFT with e-mail counseling—exhibited greater improvements on several outcomes including well-being when controlling for preintervention scores. The e-mail counselors may have contributed to adherence as well as the effectiveness of the intervention through showing compassion for the participants, which may reactivate the soothing and affiliation system, engendering a sense of support and building a sense of competence in participants. An alternative explanation for the high adherence rate has to do with the use of a self-selected sample. It is likely that participants were highly motivated and adopted positive outcome expectations prior to the intervention. This may have affected actual intervention outcomes (Sotsky et al., 2006) to the extent that (some of) the effects may have been overestimated.

Another selection bias may have been introduced into the study by only including people who are not flourishing and are also experiencing at most mild depressive or anxiety symptoms. As such, generalizability of the findings to people with more severe symptoms cannot be assumed at present. In this regard, it should also be noted that the most common reason for exclusion was a score >11 on the depression and/or anxiety subscale of the HADS, suggesting that people with more serious depressive or anxiety symptoms also experience a need for a compassion-focused intervention. Previous research demonstrates that people with clinical symptoms, including depression and anxiety, may benefit from CFT or CFT-like interventions (Braehler et al., 2013; Gilbert & Procter, 2006; Lo, Ng, & Chan, 2015). One possible explanation is that CFT, through cultivating compassion, may help overcome or mitigate the impact of multiple transdiagnostic risk factors associated with adverse mental health, including self-criticism. A promising finding from our study was that CFT was effective in both cultivating self-reassurance and reducing self-criticism which are both deemed pivotal mechanisms of change targeted in CFT. Additionally, a number of studies has shown that people suffering from depression or anxiety benefit from self-help (Cavanagh et al., 2014; Cuijpers & Schuurmans, 2007; Den Boer, Wiersma, & Van Den Bosch, 2004; Haug, Nordgreen, Öst, & Havik, 2012; Hirai & Clum, 2006), whereby it should be noted that guided self-help is preferred over unguided self-help (Hanson, Webb, Sheeran, & Turpin, 2016). Consequently, we may have excluded a considerable subset of the people who are likely to seek and benefit from compassion-cultivating interventions in real life. Therefore, we encourage researchers in this field to include people with more severe symptoms in future trials.

Several other limitations should be recognized when interpreting the results. First, in accordance with earlier studies (e.g., Fledderus et al., 2012; Schotanus-Dijkstra, Drossaert et al., 2017), high-educated females were overrepresented, thereby limiting the generalizability of the findings. Second, due to the use of a waitlist control group, we cannot rule out the influence of nonspecific factors (Mohr et al., 2009). Moreover, we recognize that RCTs using a waitlist controlled design tend to overestimate effect sizes,

thereby limiting the conclusiveness of our findings (Cuijpers, Cristea, Karyotaki, Reijnders, & Huibers, 2016; Kazdin, 2015). Third, owing to the design of the current trial, participants could not be blinded. Fourth, as we did not power a priori for moderation analyses, these analyses were exploratory and should be interpreted with utmost caution. Fifth, despite preliminary indications of our data that the use of e-mail guidance is successful in improving adherence and effectiveness of a self-help CFT intervention, these findings remain inconclusive regarding the role of the counselor given that the comparison groups did not receive the intervention simultaneously. Not only the lack of support, but also the 6-month waiting time may have had an impact on waitlist participant's motivation, adherence, and perceived benefits from the intervention. Furthermore, we recognize that the use of this e-mail component limits the potential of the intervention to be scaled up from a controlled trial to implementation on a larger scale so as to broaden its reach across populations that may benefit from this type of intervention. In this regard, it should be noted however that participants in the waitlist control group still exhibited significant, moderate improvements on most outcome measures after receiving the CFT self-help intervention without e-mail counseling. This suggests that even when offered as pure self-help a lot of people may actually benefit from the intervention. As such, there appears to be a trade-off between the effectiveness and scalability of the CFT self-help intervention. While effects are likely to be smaller for unguided compared with guided CFT self-help interventions, pure self-help formats offer the opportunity to widen the reach of CFT at low cost.

Notwithstanding the caveats in our study, the findings indicate that CFT offers opportunity both as a well-being enhancing and as a distress-oriented approach suited to nonclinical populations with suboptimal levels of well-being. Considering that a complete state of mental health requires the absence of psychological symptoms and a state of emotional, psychological, and social well-being, the intervention seems a valuable public mental health strategy. Given the burgeoning interest in compassion, additional trials, preferably with active comparison groups, are needed to provide more robust evidence for the utility of CFT. In the light of previous work indicating that psychological (guided) self-help interventions are also suitable and acceptable for people with clinical symptoms of depression and anxiety (Cavanagh et al., 2014; Cuijpers & Schuurmans, 2007; Den Boer et al., 2004; Haug et al., 2012; Hirai & Clum, 2006), it seems fruitful to investigate the effectiveness of CFT as guided self-help not only in nonclinical but also in clinical populations. Also, future research is warranted to shed further light on the circumstances under which this type of intervention works best as well as the mechanisms involved.

## References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- APA Publications and Communications Board Working Group on Journal Article Reporting Standards. (2008). Reporting standards for research in psychology: Why do we need them? What might they be? *American Psychologist*, *63*, 839–851. <http://dx.doi.org/10.1037/0003-066X.63.9.839>
- Arimitsu, K. (2016). The effects of a program to enhance self-compassion in Japanese individuals: A randomized controlled pilot study. *The Jour-*

- Journal of Positive Psychology*, 11, 559–571. <http://dx.doi.org/10.1080/17439760.2016.1152593>
- Baião, R., Gilbert, P., McEwan, K., & Carvalho, S. (2015). Forms of Self-Criticising/Attacking & Self-Reassuring Scale: Psychometric properties and normative study. *Psychology and Psychotherapy: Theory, Research and Practice*, 88, 438–452. <http://dx.doi.org/10.1111/papt.12049>
- Boon, M. T. G., & Peeters, F. P. M. L. (1999). Affectieve dimensies bij depressie en angst [Dimensions of affectivity in depression and anxiety]. *Tijdschrift voor Psychiatrie*, 41, 109–113.
- Bouwman, C., De Jong, K., Timman, R., Zijlstra-Vlasveld, M., Van der Feltz-Cornelis, C., Tan Swan, S., & Hakkaart-van Roijen, L. (2013). Feasibility, reliability and validity of a questionnaire on healthcare consumption and productivity loss in patients with a psychiatric disorder (TiC-P). *BMC Health Services Research*, 13, 217. <http://dx.doi.org/10.1186/1472-6963-13-217>
- Braehler, C., Gumley, A., Harper, J., Wallace, S., Norrie, J., & Gilbert, P. (2013). Exploring change processes in compassion focused therapy in psychosis: Results of a feasibility randomized controlled trial. *British Journal of Clinical Psychology*, 52, 199–214. <http://dx.doi.org/10.1111/bjc.12009>
- Brugha, T., Bebbington, P., Tennant, C., & Hurry, J. (1985). The list of threatening experiences: A subset of 12 life event categories with considerable long-term contextual threat. *Psychological Medicine*, 15, 189–194. <http://dx.doi.org/10.1017/S003329170002105X>
- Castilho, P., Pinto-Gouveia, J., & Duarte, J. (2015). Exploring self-criticism: Confirmatory factor analysis of the FSCRS in clinical and nonclinical samples. *Clinical Psychology & Psychotherapy*, 22, 153–164. <http://dx.doi.org/10.1002/cpp.1881>
- Cavanagh, K., Strauss, C., Forder, L., & Jones, F. (2014). Can mindfulness and acceptance be learnt by self-help?: A systematic review and meta-analysis of mindfulness and acceptance-based self-help interventions. *Clinical Psychology Review*, 34, 118–129. <http://dx.doi.org/10.1016/j.cpr.2014.01.001>
- Chamberlain, D., Heaps, D., & Robert, I. (2008). Bibliotherapy and information prescriptions: A summary of the published evidence-base and recommendations from past and ongoing Books on Prescription projects. *Journal of Psychiatric and Mental Health Nursing*, 15, 24–36. <http://dx.doi.org/10.1111/j.1365-2850.2007.01201.x>
- Chida, Y., & Steptoe, A. (2008). Positive psychological well-being and mortality: A quantitative review of prospective observational studies. *Psychosomatic Medicine*, 70, 741–756. <http://dx.doi.org/10.1097/PSY.0b013e31818105ba>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385–396. <http://dx.doi.org/10.2307/2136404>
- Crawford, J. R., & Henry, J. D. (2004). The positive and negative affect schedule (PANAS): Construct validity, measurement properties and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 43, 245–265. <http://dx.doi.org/10.1348/0144665031752934>
- Cuijpers, P., Cristea, I. A., Karyotaki, E., Reijnders, M., & Huibers, M. J. H. (2016). How effective are cognitive behavior therapies for major depression and anxiety disorders? A meta-analytic update of the evidence. *World Psychiatry*, 15, 245–258. <http://dx.doi.org/10.1002/wps.20346>
- Cuijpers, P., & Schuurmans, J. (2007). Self-help interventions for anxiety disorders: An overview. *Current Psychiatry Reports*, 9, 284–290. <http://dx.doi.org/10.1007/s11920-007-0034-6>
- Dempster, A. P., Laird, N. M., & Rubin, D. B. (1977). Maximum likelihood from incomplete data via the EM algorithm. *Journal of the Royal Statistical Society, Series B: Methodological*, 39, 1–38.
- Den Boer, P. C. A. M., Wiersma, D., & Van den Bosch, R. J. (2004). Why is self-help neglected in the treatment of emotional disorders? A meta-analysis. *Psychological Medicine*, 34, 959–971. <http://dx.doi.org/10.1017/S003329170300179X>
- El-Masri, M. M., & Fox-Wasylyshyn, S. M. (2005). Missing data: An introductory conceptual overview for the novice researcher. *Canadian Journal of Nursing Research*, 37, 156–171.
- Evans, C., Margison, F., & Barkham, M. (1998). The contribution of reliable and clinically significant change methods to evidence-based mental health. *Evidence-Based Mental Health*, 1, 70–72. <http://dx.doi.org/10.1136/ebmh.1.3.70>
- Fledderus, M., Bohlmeijer, E. T., Pieterse, M. E., & Schreurs, K. M. (2012). Acceptance and commitment therapy as guided self-help for psychological distress and positive mental health: A randomized controlled trial. *Psychological Medicine*, 42, 485–495. <http://dx.doi.org/10.1017/S0033291711001206>
- Gellatly, J., Bower, P., Hennessy, S., Richards, D., Gilbody, S., & Lovell, K. (2007). What makes self-help interventions effective in the management of depressive symptoms? Meta-analysis and meta-regression. *Psychological Medicine*, 37, 1217–1228. <http://dx.doi.org/10.1017/S0033291707000062>
- Gilbert, P. (2014). The origins and nature of compassion focused therapy. *British Journal of Clinical Psychology*, 53, 6–41. <http://dx.doi.org/10.1111/bjc.12043>
- Gilbert, P., Clarke, M., Hempel, S., Miles, J. N. V., & Irons, C. (2004). Criticizing and reassuring oneself: An exploration of forms, styles and reasons in female students. *British Journal of Clinical Psychology*, 43, 31–50. <http://dx.doi.org/10.1348/014466504772812959>
- Gilbert, P., & Procter, S. (2006). Compassionate mind training for people with high shame and self-criticism: Overview and pilot study of a group therapy approach. *Clinical Psychology & Psychotherapy*, 13, 353–379. <http://dx.doi.org/10.1002/cpp.507>
- Hanson, K., Webb, T. L., Sheeran, P., & Turpin, G. (2016). Attitudes and preferences towards self-help treatments for depression in comparison to psychotherapy and antidepressant medication. *Behavioural and Cognitive Psychotherapy*, 44, 129–139. <http://dx.doi.org/10.1017/S1352465815000041>
- Haug, T., Nordgreen, T., Öst, L. G., & Havik, O. E. (2012). Self-help treatment of anxiety disorders: A meta-analysis and meta-regression of effects and potential moderators. *Clinical Psychology Review*, 32, 425–445. <http://dx.doi.org/10.1016/j.cpr.2012.04.002>
- Hayes, A. F. (2012). *PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling*. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Hirai, M., & Clum, G. A. (2006). A meta-analytic study of self-help interventions for anxiety problems. *Behavior Therapy*, 37, 99–111. <http://dx.doi.org/10.1016/j.beth.2005.05.002>
- Howell, R. T., Kern, M. L., & Lyubomirsky, S. (2007). Health benefits: Meta-analytically determining the impact of well-being on objective health outcomes. *Health Psychology Review*, 1, 83–136. <http://dx.doi.org/10.1080/17437190701492486>
- Hulsbergen, M., & Bohlmeijer, E. (2015). *Compassie als sleutel tot geluk: Voorbij stress en zelfkritiek* [Compassion as key to happiness: Beyond stress and self-criticism]. Amsterdam, the Netherlands: Boom.
- Huppert, F. A. (2004). A population approach to positive psychology: The potential for population interventions to promote well-being and prevent disorder. In P. A. Linley & S. Joseph (Eds.), *Positive psychology in practice* (pp. 693–709). Hoboken, NJ: Wiley. <http://dx.doi.org/10.1002/9780470939338.ch41>
- Huppert, F. A. (2009). Psychological well-being: Evidence regarding its causes and consequences. *Applied Psychology Health and Well-Being*, 1, 137–164. <http://dx.doi.org/10.1111/j.1758-0854.2009.01008.x>
- Huppert, F. A., & Whittington, J. E. (2003). Evidence for the independence of positive and negative well-being: Implications for quality of life assessment. *British Journal of Health Psychology*, 8, 107–122. <http://dx.doi.org/10.1348/135910703762879246>

- Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59*, 12–19. <http://dx.doi.org/10.1037/0022-006X.59.1.12>
- Jans-Beken, L., Lataster, J., Leontjevas, R., & Jacobs, N. (2015). Measuring gratitude: A comparative validation of the Dutch Gratitude Questionnaire (GQ6) and short gratitude, resentment, and appreciation test (SGRAT). *Psychologica Belgica, 55*, 19–31. <http://dx.doi.org/10.5334/pb.bd>
- Kazdin, A. E. (2015). Treatment as usual and routine care in research and clinical practice. *Clinical Psychology Review, 42*, 168–178. <http://dx.doi.org/10.1016/j.cpr.2015.08.006>
- Kelly, A. C., & Carter, J. C. (2015). Self-compassion training for binge eating disorder: A pilot randomized controlled trial. *Psychology and Psychotherapy: Theory, Research and Practice, 88*, 285–303. <http://dx.doi.org/10.1111/papt.12044>
- Kelly, A. C., Zuroff, D. C., Foa, C. L., & Gilbert, P. (2010). Who benefits from training in self-compassionate self-regulation? A study of smoking reduction. *Journal of Social and Clinical Psychology, 29*, 727–755. <http://dx.doi.org/10.1521/jscp.2010.29.7.727>
- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior, 43*, 207–222. <http://dx.doi.org/10.2307/3090197>
- Keyes, C. L. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73*, 539–548. <http://dx.doi.org/10.1037/0022-006X.73.3.539>
- Keyes, C. L. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist, 62*, 95–108. <http://dx.doi.org/10.1037/0003-066X.62.2.95>
- Keyes, C. L., Dhingra, S. S., & Simoes, E. J. (2010). Change in level of positive mental health as a predictor of future risk of mental illness. *American Journal of Public Health, 100*, 2366–2371. <http://dx.doi.org/10.2105/AJPH.2010.192245>
- Keyes, C. L., Eisenberg, D., Perry, G. S., Dube, S. R., Kroenke, K., & Dhingra, S. S. (2012). The relationship of level of positive mental health with current mental disorders in predicting suicidal behavior and academic impairment in college students. *Journal of American College Health, 60*, 126–133. <http://dx.doi.org/10.1080/07448481.2011.608393>
- Kirby, J. N. (2016). Compassion interventions: The programmes, the evidence, and implications for research and practice. *Psychology and Psychotherapy: Theory, Research and Practice, 90*, 432–455. <http://dx.doi.org/10.1111/papt.12104>
- Kirby, J. N., Tellegen, C. L., & Steindl, S. R. (2017). A meta-analysis of compassion-based interventions: Current state of knowledge and future directions. *Behavior Therapy, 48*, 778–792. <http://dx.doi.org/10.1016/j.beth.2017.06.003>
- Kupeli, N., Chilcot, J., Schmidt, U. H., Campbell, I. C., & Troop, N. A. (2013). A confirmatory factor analysis and validation of the forms of self-criticism/reassurance scale. *British Journal of Clinical Psychology, 52*, 12–25. <http://dx.doi.org/10.1111/j.2044-8260.2012.02042.x>
- Lamers, S. M. A., Westerhof, G. J., Bohlmeijer, E. T., ten Klooster, P. M., & Keyes, C. L. (2011). Evaluating the psychometric properties of the Mental Health Continuum-Short Form (MHC-SF). *Journal of Clinical Psychology, 67*, 99–110. <http://dx.doi.org/10.1002/jclp.20741>
- Lamers, S. M. A., Westerhof, G. J., Glas, C. A. W., & Bohlmeijer, E. T. (2015). The bidirectional relation between positive mental health and psychopathology in a longitudinal representative panel study. *The Journal of Positive Psychology, 10*, 553–560. <http://dx.doi.org/10.1080/17439760.2015.1015156>
- Leaviss, J., & Uttley, L. (2015). Psychotherapeutic benefits of compassion-focused therapy: An early systematic review. *Psychological Medicine, 45*, 927–945. <http://dx.doi.org/10.1017/S0033291714002141>
- Lee, E. H. (2012). Review of the psychometric evidence of the perceived stress scale. *Asian Nursing Research, 6*, 121–127. <http://dx.doi.org/10.1016/j.anr.2012.08.004>
- Lipsey, M. W., & Wilson, D. B. (1993). The efficacy of psychological, educational, and behavioral treatment. Confirmation from meta-analysis. *American Psychologist, 48*, 1181–1209. <http://dx.doi.org/10.1037/0003-066X.48.12.1181>
- Lo, H. H. M., Ng, S. M., & Chan, C. L. W. (2015). Evaluating compassion-mindfulness therapy for recurrent anxiety and depression: A randomized control trial. *Research on Social Work Practice, 25*, 715–725. <http://dx.doi.org/10.1177/1049731514537686>
- López, A., Sanderman, R., Smink, A., Zhang, Y., van Sonderen, E., Ranchor, A., & Schroevers, M. J. (2015). A reconsideration of the Self-Compassion Scale's total score: Self-compassion versus self-criticism. *PLoS ONE, 10*, e0132940. <http://dx.doi.org/10.1371/journal.pone.0132940>
- Lyubomirsky, S., & Layous, K. (2013). How do simple positive activities increase well-being? *Current Directions in Psychological Science, 22*, 57–62. <http://dx.doi.org/10.1177/0963721412469809>
- Mohr, D. C., Spring, B., Freedland, K. E., Beckner, V., Arean, P., Hollon, S. D., . . . Kaplan, R. (2009). The selection and design of control conditions for randomized controlled trials of psychological interventions. *Psychotherapy and Psychosomatics, 78*, 275–284. <http://dx.doi.org/10.1159/000228248>
- Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity, 2*, 223–250. <http://dx.doi.org/10.1080/15298860309027>
- Peeters, F. P. M. L., Ponds, R. W. H. M., & Vermeeren, M. T. G. (1996). Affectiviteit en zelfbeoordeling van depressie en angst. *Tijdschrift voor Psychiatrie, 38*, 240–250.
- Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the Self-Compassion Scale. *Clinical Psychology & Psychotherapy, 18*, 250–255. <http://dx.doi.org/10.1002/cpp.702>
- Ryff, C. D. (2014). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics, 83*, 10–28. <http://dx.doi.org/10.1159/000353263>
- Schotanus-Dijkstra, M., Drossaert, C. H. C., Pieterse, M. E., Boon, B., Walburg, J. A., & Bohlmeijer, E. T. (2017). An early intervention to promote well-being and flourishing and reduce anxiety and depression: A randomized controlled trial. *Internet Interventions, 9*, 15–24. <http://dx.doi.org/10.1016/j.invent.2017.04.002>
- Schotanus-Dijkstra, M., Pieterse, M. E., Drossaert, C. H. C., Westerhof, G. J., de Graaf, R., ten Have, M., . . . Bohlmeijer, E. T. (2015). What factors are associated with flourishing? Results from a large representative national sample. *Journal of Happiness Studies, 17*, 1351–1370. <http://dx.doi.org/10.1007/s10902-015-9647-3>
- Schotanus-Dijkstra, M., ten Have, M., Lamers, S. M. A., de Graaf, R., & Bohlmeijer, E. T. (2017). The longitudinal relationship between flourishing mental health and incident mood, anxiety and substance use disorders. *European Journal of Public Health, 27*, 563–568.
- Schulz, K. F., Altman, D. G., & Moher, D. (2010). CONSORT 2010 statement: Updated guidelines for reporting parallel group randomised trials. *Journal of Clinical Epidemiology, 63*, 834–840. <http://dx.doi.org/10.1016/j.jclinepi.2010.02.005>
- Shapira, L. B., & Mongrain, M. (2010). The benefits of self-compassion and optimism exercises for individuals vulnerable to depression. *The Journal of Positive Psychology, 5*, 377–389. <http://dx.doi.org/10.1080/17439760.2010.516763>
- Slade, M. (2010). Mental illness and well-being: The central importance of positive psychology and recovery approaches. *BMC Health Services Research, 10*, 26. <http://dx.doi.org/10.1186/1472-6963-10-26>
- Sotsky, S. M., Glass, D. R., Shea, M. T., Pilkonis, P. A., Collins, F., Elkin, I., . . . Oliveri, M. E. (2006). Patient predictors of response to psycho-

- therapy and pharmacotherapy: Findings in the NIMH Treatment of Depression Collaborative Research Program. *Focus*, 4, 278–290.
- Spinhoven, P., Ormel, J., Sloekers, P. P., Kempen, G. I., Speckens, A. E., & Van Hemert, A. M. (1997). A validation study of the Hospital Anxiety and Depression Scale (HADS) in different groups of Dutch subjects. *Psychological Medicine*, 27, 363–370. <http://dx.doi.org/10.1017/S0033291796004382>
- Stern, A. F. (2014). The hospital anxiety and depression scale. *Occupational Medicine*, 64, 393–394. <http://dx.doi.org/10.1093/occmed/kqu024>
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063–1070. <http://dx.doi.org/10.1037/0022-3514.54.6.1063>
- Wood, A. M., & Joseph, S. (2010). The absence of positive psychological (eudemonic) well-being as a risk factor for depression: A ten year cohort study. *Journal of Affective Disorders*, 122, 213–217. <http://dx.doi.org/10.1016/j.jad.2009.06.032>
- Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica*, 67, 361–370. <http://dx.doi.org/10.1111/j.1600-0447.1983.tb09716.x>

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