The 3rd Meeting of the International Academy of Health Preference Research

Sunday, October 18, 2015
8:00 AM - 5:30 PM

Chaired by Derek Brown, PhD, Washington University in St. Louis

Charles F. Knight Executive Education & Conference Center
at Washington University in St. Louis
One Brookings Drive
St. Louis, Missouri, USA

Held at the Knight Center—located on the grounds of Washington University—this 1-day meeting will provide a forum to discuss innovative developments in the field of health preference research. Chaired by Derek Brown, PhD, the meeting will include approximately 13 oral presentations, light breakfast, coffee, lunch, and a business session. All are welcome to register at: www.iahpr.org.

Pre-Meeting Dinner & Student Poster Session
Saturday, October 17, 2015 - 6:00 to 11:30 pm

The Pre-Meeting Dinner and Student Poster Session will also be held at the Knight Center and is free for all meeting attendees. The dinner includes a multi-course menu and open bar (no guests, please). The poster session was created as a way to showcase the achievements of students engaged in health preference research. The event includes a free shuttle between the Hyatt Regency and Knight Center. The shuttle schedule will be included in the registration packet.

For more information, visit www.iahpr.org or email meeting2015@iahpr.org.
**PROGRAM**

Pre-Meeting Dinner & Student Poster Session, Saturday, October 17, 2015 − 6:00 to 11:30 PM

- Investigating the Impact of Individual Valuation Block Composition on TTO Estimates
  **Andréa Libório Monteiro**

- Specialist Training as an Incentive to Retain Doctors in Malawi: A Discrete Choice Experiment
  **Kate Mandeville**

- Comparison of PROMIS and EQ-5D Quality-Adjusted Life Years
  **John D. Hartman**

- Stated-Preference Survey Development for Muscular Dystrophy: A Community-Engaged Research Application
  **Ilene L. Hollin**

Meeting, Sunday, October 18, 2015 − 8:00 AM - 5:30 PM

8:00-8:30 AM  Arrival and Light Breakfast

8:30-8:45  Welcome and Acknowledgement of Sponsors
  Meeting Chair: Derek Brown

8:45-10:15 Session 1

  **Jan Ostermann**

- Radial versus Femoral Vascular Access Options in Coronary Angiography and Intervention
  **Janine van Til**

- Willingness-to-Pay for Health: A Fuzzy Approach to Modelling Preferences and Choice Functions
  **Michał Jakubczyk**

- Best-Worst Scaling Works with Virtually Everyone. Except Kids
  **Terry Nicholas Flynn**

10:15-10:30 Coffee Break

10:30-12:00 PM Session 2

- Use of Best-Worst Scaling to Assess Patient Perceptions of Refractory Overactive Bladder Treatments
  **Kathleen Marie Beusterien**

- Valuing New HRQOL Measures: A DCE Application for Adverse Childhood Experiences and Maltreatment
  **Derek Brown**

- The Effect of Framing of Death on Health State Values Obtained from Discrete Choice Experiments
  **Marcel Jonker**

- Framing of Attribute's Levels: Influence on the Interpretation of Outcomes from a BWS Experiment
  **Marieke Weernink**

12:00-1:00 Lunch

1:00-2:30 Session 3

- Attribute Non-Attendance and Time Pressure in Discrete Choice Experiments: An Eye-Tracking Study
  **Kate Mandeville**

- Respondent Cognition in Health Preference Research
  **Shannon K. Runge**

- Mitigating Hypothetical Bias in Stated Preference Discrete Choice Experiments
  **Dean A. Regier**

- Discount Rate Assessment among Adults Experiencing Dyspnea from Common Primary Care Diseases
  **Irene D. Fischer**

2:30-2:45 Coffee Break

2:45-3:45 Session 4

- Conjoint Analysis: A Tool for Understanding Patients Decisions for Invasive Treatments
  **Tracy Kuo Lin**

- Open Discussion
  **Derek Brown**

4:00-5:30 Business Meeting (All attendees are welcome)

* indicates a member presenter

β indicates a student presenter

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Oral Presentations

8:45-10:15 AM  Session 1

Jan Ostermann, PhD, Duke University; Derek Brown, PhD, Washington University in St. Louis; Axel Muehlbacher, PhD, Hochschule Neubrandenburg; Nathan Thielen, MD, MPH, Duke University

Purpose: Discrete choice experiments (DCEs) are increasingly used to estimate preferences for diverse health-related goods and services. Preference estimates are usually derived from a single assessment, but tend to be used to inform sometimes much delayed, longer-term resource allocation decisions and policies. The temporal stability of DCE-based preference estimates is critical for the method's utility for informing policy design and implementation. This study sought to assess the stability of individual respondents' choices and aggregate DCE-based preference estimates over time.

Methods: Between September 2012 and February 2013, a DCE on HIV testing preferences was conducted among 486 randomly selected community members in an urban setting in Northern Tanzania. The DCE contained 5 attributes: distance to testing, confidentiality, testing days (weekday vs. weekend), method for obtaining the sample for testing (blood from finger or arm, oral swab), and availability of HIV medications at the testing site. An NGene generated D-optimal design included 72 forced choice tasks, allocated over 8 blocks. Each participant was given 9 choice tasks assigned in random order. The DCE was implemented on iPads. To assess the temporal stability of individual choice patterns and aggregate preference estimates, participants were re-contacted after an average of 8.2 months (sd=1.5 months) and asked to repeat the exact same choice tasks in the exact same order. Gender-specific mixed logit models were used to estimate mean preference parameters; interactions with an indicator variable for the repeat assessment were used to evaluate the stability of preference estimates over time. Ordered probit models evaluated the effect of HIV testing experience, HIV serostatus disclosure, and changes in risk characteristics between the two assessments on the number of changed responses.

Results: In total, 301 participants repeated the 9 choice tasks. On average, participants changed their answers on 3.2 of 9 choices. Failure to provide the same answer on repeat assessment was associated with a first-time HIV test between the two assessments, HIV serostatus disclosure to spouse and others, and incident HIV risk characteristics, including commercial sex and more than one sexual partner between the assessments. Gender-stratified estimates of average preferences were not significantly different between assessments for 14 of 18 attribute levels, and rankings of relative preference weights across all 14 attribute levels differed by <2 ranks, on average.

Conclusions: In this context and population, the estimated mean preference parameters derived using DCE methods have good temporal stability. Changes in respondent characteristics are associated with changed responses in DCE choice tasks, providing additional support for the validity of DCE methods for eliciting preferences.

Radial versus Femoral Vascular Access Options in Coronary Angiography and Intervention
Anneloes Fens, MSc, and Marieke Weernink, PhD student, University of Twente; Clemens von Birgelen, MD, PhD, Medisch Spectrum Twente, Enschede; Janine van Til, PhD, University of Twente

Purpose: For years, the trans-femoral access (TFA) was the default access route to the coronary arteries because the TFA is a fail save and easy access route from a clinician's perspective. In recent years, there is an increasing interest in trans-radial access (TRA) as it has advantages that mainly benefit the patient, such as earlier patient ambulation and in increased comfort. Success rates of TFA and TRA itself are comparable. The objective of this study is to determine patient preferences over benefits, risks and process characteristics of coronary intervention and to relate them to patient previous experiences.

Methods: A Best-Worst Scaling (BWS) case 2 was conducted to elicit patient preferences (n=153) for six attributes of care: risk of bleeding, need to change access-site during the procedure, vessel quality post
procedure, length of hospital stay, post-procedural patient comfort, and post-procedural mobilization. Patients were asked to indicate which attribute of treatment they perceived as the most and lease important in choosing for treatment, the results being equal. Moreover, patient’s previous experience with treatment and direct stated preference for treatment were elicited. Patients were provided with an (oral) explanation by a researcher. Best-minus-Worst scores, conditional logit analysis, attribute importance, and subgroup analysis were calculated and/or executed. 

**Results:** Overall, patients (n=143) considered the risk of bleeding as most important attribute of treatment (attribute importance 31%), followed by length of hospital stay (23%) and post-procedural mobilization (20%). When direct preferences for access route were elicited, a small majority of patients (60%) preferred the femoral route. Many patients had an intervention prior to the current intervention. Within the subgroup of patients that had a history including both vascular routes, 72% were in favor of the radial route. Subgroup analysis of attribute importance revealed that patients who had prior interventions, attached more importance to hospital stay (28 vs. 18%) and less importance to risk of bleeding (10 vs. 30%) compared to patients without a prior intervention. No major differences in preference in attribute importance were found between patients that currently had femoral or radial access.

**Conclusion:** While lower risk of bleeding, shorter length of hospital stay and quicker post-procedural mobilization were all in favor of radial access route, the majority of patients were still in favor of femoral access when asked directly. Previous experience has a major impact on direct treatment preference. Given that because of organizational reasons, patients were interviewed after treatment took place, this might have been expected. We propose using preference elicitation as a tool to enhance shared decision making in the cardiology department. However, this includes balancing patient and clinician’s preference.

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**Willingness-to-Pay for Health: A Fuzzy Approach to Modelling Preferences and Choice Functions**

**Michał Jakubczyk, PhD, Warsaw School of Economics**

**Purpose:** Allocating public resources between health technologies, to be socially optimal, requires health to be first defined and measured (often using preference-based approach, e.g., using quality-adjusted life years), and then valued in monetary terms. The latter is difficult, e.g., due to health being a non-market good (opposite to health services) and strong ethical issues involved; hence, the willingness-to-pay (WTP) often cannot be precisely determined. The of this research is to advocate using fuzzy sets to modelling WTP and to show how this approach can be used to model decision makers preferences and to support decision making via fuzzy choice functions.

**Methods:** A preliminary survey among 27 health technology assessment (HTA) experts in Poland was performed to i) verify the presence of fuzziness in valuing health, ii) detect possible discrepancies (suggested in the literature) between the WTP and the willingness-to-accept (WTA), iii) compare different elicitation methods (Likert-based vs direct asking for a range of values). An axiomatic approach to define the structure of preferences involving two criteria: health and money: was suggested. Fuzzy counterparts of notions typically used in HTA were suggested: fuzzy net benefit and fuzzy (cost-effectiveness) acceptability curve in case uncertainty is present. A fuzzy choice function was defined when the choice is made from among possibly more than two alternatives. Properties of newly defined concepts were verified.

**Results:** A majority of experts agreed that a threshold value of health should be determined and publicly known in HTA decisions. At the same time a majority could only report their preferences in a fuzzy manner. Likert-type questions reveal more nuanced information on the WTP/WTA: asking directly about the WTP range makes respondents focus only on values of which they are quite convinced. The WTP/WTA seem to meet the standard properties of fuzzy preferences (connectedness, antisymmetry), and so the WTP/WTA disparity results rather from the fuzzy perception of both and above-mentioned focusing on ranges of which the respondent is highly convicted. Fuzzy net benefit respects dominance and extended dominance relation between health technologies. Fuzzy acceptability curves in some cases have more intuitive properties than a non-fuzzy original (which need not to be monotonic). Fuzzy choice function can be defined in case several alternatives are available, but the actual choice requires crispification as the last stage. Defuzzification via maximizing the conviction that an option is the best (i.e., selecting the option...