

PRM152

TRANSLATION AND CULTURAL ADAPTATION OF THE POLISH VERSION OF "DISABILITIES OF THE ARM, SHOULDER AND HAND" (DASH) AND QUICKDASH QUESTIONNAIRES

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OBJECTIVES: To translate into Polish and adapt culturally DASH and QuickDASH outcome measures. **METHODS:** We followed recommendations issued by Insitute for Work and Health (IWH, 2007). Two forward translations were made – by an informed (T1) and uninformed translator (T2). Discrepancies were discussed and resolved with participation of the third unbiased investigator and a synthesis of translations was produced (T12). Two native speakers, totally blind to the original version, translated back T12 version into English (BT1 and BT2). Eight experts: 2 orthopedic surgeons, physiotherapist, sworn translator, 2 English native speakers, psychologist and a Polish language specialist formed an Expert Committee (EC). Committee consolidated all the versions, review all the translations and reached a consensus on any discrepancy found. Decisions were made to achieve semantic, idiomatic, experiential and conceptual equivalence with the original version. **RESULTS:** We report 65 discrepancies raised by Expert Committee members and their solutions. The Polish pre-final versions of DASH and QuickDASH questionnaires, ready for pilot testing, were produced. Written reports from all stages of the process were submitted to the IWH Cross-Cultural Adaptation Review Committee for approval. **CONCLUSIONS:** Numerous translation discrepancies were resolved by discussion by Expert Committee. The Polish pre-final versions of DASH and QuickDASH questionnaires were produced and used in pilot testing.

PRM153

LINGUISTIC TRANSLATION AND CULTURAL ADAPTATION OF FUNCTIONAL ASSESSMENT OF CHRONIC ILLNESS THERAPY-TUBERCULOSIS INSTRUMENT INTO ARABIC LANGUAGE

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OBJECTIVES: Functional Assessment of Cancer Therapy- General (FACT-G) was adapted to develop a disease specific subscale for pulmonary tuberculosis (PTB) patients in Iraq. The current study aimed to linguistically validate Functional Assessment of Chronic Illness Therapy- Tuberculosis (FACIT-TB) measurement scale into Arabic language and to produce a translated version which was conceptually equivalent to the original U.S. English version for use in clinical practice and research. **METHODS:** The linguistic validation process comprised of general procedures derived from internationally accepted guideline for linguistic validation and cultural adaptation of FACIT measurement system; including 1) Forward translation, 2) Reconciliation, 3) Back translation, 4) Review, 5) Spelling and grammatical verification. Furthermore, the translated questionnaire was pretested at Thoracic and Respiratory Diseases Specialist Center in Baghdad, Iraq. **RESULTS:** Issues encountered during the linguistic validation process of FACIT-TB into Arabic language pertained to linguistic and semantic nuance were resolved. Pretesting was completed in seven Arabic-speaking TB patients with a mean age of 40.14 years. In addition, respondent need about 15.35 minutes (range 10-20 minutes) to complete the questionnaire. In general, respondent reported no significant problem with understanding the content of the Arabic version of FACIT-TB. Furthermore, they reported no culturally-irrelevant item. The instrument was found to be comprehensible, clear and relevant to the value of PTB patients in Iraq. **CONCLUSIONS:** Linguistic validation of FACIT-TB into Arabic language was completed according to a recognized and rigorous double-back translation method to achieve, to the greatest degree possible, equivalence of meaning and measurement between the two different country versions. It will provide an additional parameter to evaluate the effectiveness of TB program for patients in Iraq. Health care providers in the national TB control program should make a judicious utilization of this instrument in helping patients to cope with their illness and in predicting TB treatment outcomes.

PRM154

ESTIMATING THE SOCIAL DISTRIBUTION OF HEALTH IN ENGLAND

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OBJECTIVES: To develop a model of quality adjusted life expectancy (QALE) in England and estimate the social distribution of both mortality and morbidity by socio-economic characteristics such as gender, ethnicity and deprivation. **METHODS:** The 2011 wave of the Health Survey for England (HSE) is used to model EQ-5D as a function of gender, ethnicity, index of multiple deprivation and other relevant characteristics using appropriate regression techniques to account for the skewness of the EQ-5D distribution. Previous waves of the HSE are used to validate the model. ONS life tables and the ONS longitudinal study data are used to model life expectancy as a function of the same characteristics. The two models are combined to give a multivariate prediction model for QALE as a function of these characteristics. This prediction model is combined with population level aggregate data on the key characteristics and used to estimate a population QALE distribution. **RESULTS:** There is a substantial social gradient in the health distribution as represented by QALE in England. The QALE differential between most and least disadvantaged fifths of the social distribution is 12 years, compared with a difference of 5 years in life expectancy when morbidity differentials are not taken into account. **CONCLUSIONS:** The QALE prediction model allows us to estimate quality adjusted life expectancy distributions for various subsets of the population, and shows that focusing on life expectancy alone substantially underestimates the degree of health inequality. Our model can be used both for obtaining a more accurate picture of the overall level

of health inequality in society and for evaluating the overall impact of population health interventions on health inequality.

PRM155

USING STRUCTURAL EQUATION MODELING TO DETECT RESPONSE SHIFT AND TRUE CHANGE IN HEALTH-RELATED QUALITY-OF-LIFE SCORES OF BREAST CANCER PATIENTS AFTER SURGERY

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OBJECTIVES: This study aimed to capture response shift and true change in health-related quality of life (HRQOL) scores of breast cancer patients after surgery. **METHODS:** A data set from a prospective study to identify predictive factors of HRQOL (Taira N, Shimozuma K, et al: Breast Cancer Res Treat, 2011) was analyzed, which included HRQOL scores of physical well-being (PWB) and emotional well-being (EWB) scales of the FACT-G in 191 female breast cancer patients during a two-year postoperative period (at baseline [1 month after surgery]), 6, 12, and 24 months postoperatively). Oort's structural equation modeling approach was used to investigate three aspects of response shift: (a) a change in the respondent's internal standards of measurement (i.e., recalibration); (b) a change in the respondent's importance of values (i.e., reprioritization) and (c) a redefinition of the target construct (i.e., reconceptualization). **RESULTS:** All three aspects of response shift were observed. Recalibration and reprioritization were occurred in three items of PWB ('nausea', 'trouble with family', 'side effects'). Reconceptualization was observed from PWB to EWB in two items ('nausea' and 'pain') and from EWB to PWB in two items ('sadness' and 'nervousness'). True change, which was calculated after adjustment of response shift, was observed in PWB (the across occasion difference of common factor mean [alpha] = 0.238, P < 0.001) during first 6 months, and in PWB (alpha = 0.605, P < 0.001) and EWB (alpha = 0.234, P < 0.05) during first 12 months, while observed data analyses indicated statistically significant change in PWB and EWB during first 12 months. **CONCLUSIONS:** Captured response shifts in this study may be affected by various pre- and post-operative events such as notification of cancer and/or received treatments. These results will help improve reliability of HRQOL measurements in a longitudinal study.

PRM156

FACTRIAL INVARIANCE OF THE WHOQOL-OLD ACROSS GENDER, AGE, AND RESIDENT AREA IN TAIWAN

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OBJECTIVES: To examine the factor invariance of the WHOQOL-OLD across gender, age, and resident area for the old people in Taiwan. **METHODS:** Data were collected from 512 Taiwan elderly people (M = 76.2, SD = 7.5, ages ranged from 60 to 99) including 177 males and 335 females. 232 aged from 60 to 75 and 279 aged from 76 to 99. 334 live in the southern rural area and 176 live in the northern metropolitan area. To examine the factorial invariance of the WHOQOL-OLD, the sample was divided into two groups on different gender, age, and resident area. First, a baseline six-factor model was tested for different gender, age, and resident area respectively. Second, multi-sample analysis was conducted across gender, resident area, and age. Specifically, equal constraints on factor loadings, error variances, and factor variances were imposed. Model comparisons by using Chi-square difference tests were conducted to examine the factor invariance across gender, age, and resident area. **RESULTS:** Multi-sample analysis revealed that the factor loadings were invariant across different gender, age, and resident area groups respectively. Besides, when imposing equal constraints on the factor loadings, item variances and factor variances, the model fit indices revealed that the only complete factor invariance model was across gender but not age and resident area groups. **CONCLUSIONS:** This study suggests the underlying factor construct of the WHOQOL-OLD are similar to different degree across different gender, age, and resident area groups. We conclude that the WHOQOL-OLD is a practical measurement tool for different gender, age, and location groups for the old people in Taiwan.

PRM157

A REVIEW OF COGNITIVE INTERVIEWING METHODOLOGIES DURING LINGUISTIC VALIDATION OF CLINICAL OUTCOME ASSESSMENTS (COAS)

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OBJECTIVES: Per ISPOR and FDA guidelines, conducting cognitive interviews during the linguistic validation of COAs is recommended to increase comprehension and conceptual equivalence between language versions. However, multiple methods are available to conduct cognitive interviews, partially enabled by the increased availability and ease of technology to facilitate the interviews. This poster will review the various methodologies that can be used to conduct cognitive interviews. **METHODS:** A review of cognitive interview methodologies from past projects as well as potential alternative methods was conducted, including: 1) in-person interviews, 2) telephone interviews, and 3) interviews via video conferencing. Consideration was given to ease of scheduling, cost, and quality/comprehensiveness of feedback. **RESULTS:** Each methodology presented pros and cons, including: 1) in-person interviews enable the interviewer to gauge the respondent's body language, signaling where he/she may be having difficulty with an item but are unable to verbalize feedback; however, the interviews are more costly and present organizational challenges (i.e. scheduling, travel, etc.); 2) telephone interviews enable easier scheduling of interviews and reduce cost, but do not allow the interviewer to gauge the body language of the respondent and respondents may not feel comfortable providing feedback over the telephone; 3) interviews via video conferencing may enable easier scheduling of interviews, allow an interviewer to gauge the body language of the respondent, and provide a lower-cost alternative, but the availability of the technology can present challenges in certain regions. **CONCLUSIONS:** There are various ways of conduct-