on desktop and tablet PC platforms. Results of the interviews informed the development and final testing of a standardized interface that can be used across studies to facilitate rapid deployment of ePRO studies.

TRANSLATION OF THE PATIENT-REPORTED OUTCOMES MEASUREMENT INFORMATION SYSTEM INTO SPANISH

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The Patient-Reported Outcomes Measurement Information System (PROMIS) provides accurate and efficient measurement of patient-reported outcomes. Developed in English using English qualitative methods, PROMIS seeks to measure symptoms, such as pain and fatigue, and aspects of health-related quality of life across a wide variety of chronic diseases and conditions. OBJECTIVES: In order to enable participation of the rapidly growing Spanish-speaking population of the USA it was necessary to translate PROMIS banks from English into Spanish using methods that would ensure linguistic equivalence and cultural appropriateness. METHODS: Five hundred and twenty-two items were translated into Spanish using the FATT Multilingual Translation Methodology which consists of the following twelve steps: (1) translatability review of existing English items, (2) creation of item definitions, (3) two simultaneous forward translations, (4) reconciliation of forward translations, (5) back translation of reconciliation, (6) expert review of back translation and previous steps, (7) preliminary finalization for pilot-testing, (8) harmonization, (9) quality assurance, (10) formatting, (11) cognitive testing with native speakers of Spanish and (12) analysis and finalization of translations based on qualitative data collected during pilot-testing. Recognizing the need to address diversity within the Spanish-speaking population of the USA, experts from various Spanish-speaking regions across the globe were recruited to achieve a universal Spanish translation. RESULTS: Some of the linguistic challenges encountered during the translation process as well as the language solutions for resolving linguistic and cultural differences, and the cultural and linguistic heterogeneity of the Spanish-speaking population residing in the USA will be highlighted in this presentation.

CONCLUSIONS: Future research includes further validation of the Spanish translation using psychometric testing of the equivalence of banks in English and Spanish, including assessment of differential item functioning across different cultural groups. The translation of additional items into Spanish and into other languages is also explored in this presentation.

USE OF CONJOINT ANALYSIS IN HEALTH OUTCOMES RESEARCH: AN EXAMINATION OF THE LITERATURE

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Patient-reported outcomes (PROs) are key endpoint measures to examine and assess preferences for health improvements. Conjoint analysis (CA), traditionally used in marketing studies to examine tradeoffs among attributes, has gained popularity in health care and PRO studies. However, the use of CA and the type of CA studies performed in health care has not been fully characterized. In this study, we reviewed the current trends for CA, classified CA studies by area of focus, examined study complexity, and provided recommendations for future research. Literature reviews were conducted using a multi-database search from 2000 to 2008. Review articles, methodological, and non-health related CA studies were excluded. Preference studies were coupled with key words such as: conjoint, health, disease, evaluation, discrete choice and outcomes(s). Five years were selected for detailed content analysis and re-checked for accuracy. For the five years examined, there was an upward trend for the number of health-related CA studies (2000 = 22; 2002 = 39; 2004 = 38; 2006 = 56; 2008 = 70). However, results from Chi-square analysis revealed no significant differences among years for the general area of focus for CA studies performed. The largest proportion of CA studies consisted of attribute importance, risk, and pharmacoeconomics studies where utility estimates were used to assess willingness-to-pay, quality of life, or quality-adjusted life years. Other applications included disease screening, value of services, satisfaction, treatment evaluation and service delivery. The use of CA to assess PROs in health research has expanded. Recent and more innovative applications have extended to adherence, disease screening, technology, and value. More research is needed to evaluate the usefulness of CA for large database studies and for economic analyses in health technology assessment.

THE POWER OF ASSUMPTIONS

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OBJECTIVES: Studies powered using a dichotomous endpoint, are often too small to find significant differences in quality of life (QoL) or costs. Including the likelihood that events in both arms are similar, using either frequentist assumptions or Bayesian priors, may increase the power. METHODS: A study of patients with late pain is envisioned. With therapy, 92% is expected to be pain-free at 5 years. With 20% of patients, the dichotomous power (p win/lose) is 80%. Using the EQ-5D utility score it is 40% (with the EQ-5D-pain-dimension at 3 with pain and at 0 without pain and the other EQ-5D-dimensions at random population levels). Trials are simulated and T tests are calculated based on 1. QoL of patients with pain is identical in both arms; 2. QoL of patients without pain is identical in both arms; 3. 1 + 2. 95% credibility intervals are calculated using normal priors concerning the difference in QOL (per arm) with and without pain. Expectations and precisions are varied as well as base line probabilities. RESULTS: Making both assumptions, using T-tests, increases the power from 40% to 80%. Assumption 1 does so by 2.5%, assumption 2 by 79%. Both assumptions contribute equally when the expected pain-free levels are approximately 55% versus 44% instead of 95% versus 82%. The Bayesian model coincides with the frequentist approach when the precision in the priors concerning the differences in QoL are set to the extremes (zero or infinity). Between the extremes the Bayesian approach offers the flexibility to compromise. The power increase between the extremes can be characterized by a cumulative normal distributions on the log of the squared root of the precisions. CONCLUSIONS: Predefining logical assumptions in QoL analysis may increase the power of a study. The larger the group of patients the assumption is applied to, the bigger the power increase.