CONCLUSIONS: The five MH5 items fit the Rasch model very well. Classic summative scoring tends to compress the measurement scale at its extremities, by assigning scores that are too low at the high end, and too high at the low end. Rasch scoring may render MH5 more sensitive to changes among well populations and among the very sick.

MUSCULOSKELETAL DISORDERS

RESponsiveness to change of the SF-36 in RAPOLO, a longitudinal study of rheumatoid arthritis patients treated with etanercept
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OBJECTIVES: To evaluate the responsiveness of the SF-36 subscales, the generic physical (PCS) and mental (MCS) components of the SF-36, and the SF-36 Arthritis-Specific Health Index (ASHI) to changes in disability measured by the Health Assessment Questionnaire (HAQ) in RAPOLO. METHODS: We identified 388 participants from RAPOLO, a longitudinal, observational study of RA, who had repeated measures of arthritis specific function (HAQ and ASHI) and general function (SF-36). We categorized patients into three groups according to HAQ score—(1) stable, (2) declined (increase in HAQ score >0.25) and (3) improved (a decline in HAQ score of >0.25). For each group we calculated Guyatt’s statistic—a measure of responsiveness to change. The larger the absolute value of Guyatt’s statistic, the greater the responsiveness to change. RESULTS: Cohort is 79% female; mean disease duration is 13.2 yrs; mean age is 55 yrs. There were 286 participants who had no change in HAQ score. Guyatt’s statistic ranged between 0.04 to 0.17 (Social Functioning). There were 52 participants who declined. The Guyatt’s statistics for the SF-36 ranged from 0.11 (Role Emotional) to 1.88 (Role-Physical). There were 46 participants who improved in HAQ score. The Guyatt’s statistic ranged from 0.14 (Mental Component Summary Score) to 1.58 (Role-Physical). CONCLUSIONS: Statistics less than 0.3 indicate no responsiveness to change, statistics >0.5 reflect responsiveness to change. The physical subscales of the SF-36, the PCS, and the ASHI were moderately to highly responsive to change in HAQ score. The emotional subscales were not responsive to change in disability.

Correlation of a generic health-related quality of life questionnaire and self-administered rheumatoid arthritis disease activity instrument
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BACKGROUND: Health-related quality of life (HRQOL) measures have been used to study the impact of disease activity in patients with rheumatoid arthritis (RA). The objective of this study was to evaluate the correlation between SF-36 scales, physical function (PF), role physical (RP) and bodily pain (BP) and Rapid Assessment of Disease Activity in Rheumatology (RADAR). METH-
ODS: Baseline data was analyzed from the Study of New Onset Rheumatoid Arthritis (S.O.N.O.R.A.SM), a 5-year prospective, longitudinal, inception cohort study to document long-term functional, clinical, and humanistic outcomes and patterns of treatment in patients with new onset rheumatoid arthritis. Baseline data collection consisted of RADAR and SF-36 via telephone interviews by trained interviewers. To assess the correlation, Pearson product moment correlation coefficients were calculated.

RESULTS: One hundred thirty-one patients completed the baseline survey. Mean age of the sample was 56 years; 78% were female; 82% were Caucasian. SF-36's PF, RP, and BP scales had means of 54 (SE = 0.02), 31 (SE = 0.03), and 47 (SE = 0.02), respectively. Mean scores for RADAR items were 7.2 (SE = 0.22) for “arthritis activity over the past 6 months (AA6M)”, 4.9 (SE = 0.23) for “arthritis activity today (AAT)”, 4.2 (SE = 0.22) for “arthritis pain today (APT)”, and 2.6 (SE = 0.15) for “morning stiffness today (MST)”. SF-36’s PF scale correlated with AA6M (r = 0.39, p < 0.001), AAT (r = 0.51, p < 0.001), and MST (r = 0.40, p < 0.001). SF-36’s RP scale correlated with AA6M (r = 0.37, p < 0.001), AAT (r = 0.38, p < 0.001), APT (r = 0.44, p < 0.001), and MST (r = 0.33, p < 0.001). SF-36’s BP scale correlated with AA6M (r = 0.50, p < 0.001), AAT (r = 0.48, p < 0.001), APT (r = 0.59, p < 0.001), and MST (r = 0.42, p < 0.001). CONCLUSION: The SF-36’s BP domain resulted in the highest correlation with RADAR items. The APT item of RADAR had the highest correlation with all three domains of SF-36. These results suggest that the level of bodily pain is indicative of functioning and well-being of patients.

RESPIRATORY DISORDERS/DISEASES

OUTCOME ASSESSMENT IN PEDIATRIC ASTHMA: A COMPARISON OF SYMPTOM-FREE TIME AND MULTI-ATTRIBUTE SCALE
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INTRODUCTION: Most current asthma outcome measures are either not sensitive enough to detect changes caused by interventions or not broad enough to cover all health domains affected by the disease. OBJECTIVE: To develop a comprehensive measure of health outcomes for children with asthma that is in compliance with the recommendations of the U.S. Panel on Cost-Effectiveness in Health and Medicine, and compare health outcomes estimated with that measure to those estimated with the symptom-free day, the most commonly used measure. METHODS: 1) Develop a multi-attribute Pediatric Asthma Health Outcome Measure, PAHOM, that assesses the impact of asthma on children’s symptoms, emotions, and physical activity; 2) Collect data on preference weights (Ui) for asthma health states from 101 adults using the standard gamble technique; 3) Collect data on the incidence of health states (Pi) from 72 children with asthma using PAHOM calendar; and 4) Calculate the expected utility by summing all of (Ui*Pi). The expected utility can be used as a proxy of health outcome if it is assumed that health outcomes of these children are constant for the remaining life years. RESULTS: On a scale ranging from zero to one, where perfect health had a score of one, the average utility of pediatric asthma patients in the study was 0.900 when measured with the PAHOM, compared to 0.955 when measured with a symptom-free day. CONCLUSION: PAHOM, a more comprehensive measure of health outcomes than symp-