IMPROVING THE SCALING PROPERTIES OF THE PSYCHOLOGICAL GENERAL WELL-BEING SCALE (PGWB)
McKenna SP, Meads DM, Doward LC, Tennant A

OBJECTIVES: To apply item response theory (IRT) to PGWB data to determine whether the instrument provides unidimensional assessment of well-being; identify a revised version of the measure.

METHODS: The PGWB is a widely used patient-completed generic measure of well-being that, to date, has not been subjected to item response theory (IRT) assessment. The UK version of the PGWB was used. It consists of 22 items, each with five response options. The measure was completed by two patient groups, 103 patients with rheumatoid arthritis and 96 with adult growth hormone deficiency. Data were subjected to Rasch analysis using RUMM 2010. RESULTS: Analysis revealed problems with the five option scoring system for four of the items. Three methods of analysis were followed to obtain the best fit of data: 1) rescoring of disordered items and deletion of any further misfitting items; 2) collapsing response options into three categories and rescoring further misfitting items; and 3) deletion of disordered items and any further misfitting items. The first approach gave the best fit of the data to the Rasch model in terms of overall and individual item fit and person-item separation. Three other items were then removed due to poor item fit. Subsequently, fit to the Rasch model was good, in terms of overall item-trait interaction ($\chi^2 = 128.87$, df = 95, $p = 0.001$), item fit ($mean = 0.156$, SD = 1.592), person fit ($mean = -0.294$, SD = 1.297) and person separation index (0.955).

CONCLUSION: Application of Rasch analysis to PGWB data identified a new version of the instrument consisting of 19 items with good scaling properties. Use of the new version would improve the accuracy with which well-being is assessed in clinical studies. It is recommended that the new version is tested with other disease groups to determine whether the scaling properties are maintained.

RELATIONSHIP BETWEEN PATIENT SATISFACTION AND PERCEIVED HEALTH STATUS
Xiao H
Florida A&M University, Tallahassee, FL, USA

OBJECTIVE: To examine the relationship between patient satisfaction with access to care and their perceived health status.

METHODS: Information on patient satisfaction with access to care and perceived health status along with their demographics was extracted for people 35–64 years of age, from the Household Component of 1999 Medical Expenditure Panel Survey. Descriptive statistics were used to illustrate the characteristics of the study population. Multiple regression analysis was applied to examine the relationship between patient satisfaction and their self-rated health status controlling for age, gender, race, marital status and education level. All analyses used STATA 8.0 which is designed to analyze weighted data. RESULTS: A total of 8746 patients met the study inclusion criteria and were included in the study. Of these patients, 53% were females, 69.3% were married and 82% were Caucasian. The majority (44.9%) had a high school diploma and 14.5%, 6.9% and 1.7% held BS, MS and Ph.D. degrees, respectively. Patients who rated their health better scored higher in their satisfaction with access to care. In addition, higher satisfaction was found in patients with the following characteristics: being older, female, Eskimo, married and with higher education. Asian and Hispanic patients scored lower in satisfaction than Caucasian patients. CON-