

Do the SF-36 and WHOQOL-BREF Measure the Same Constructs? Evidence from the Taiwan Population* (Quality of Life Research, Volume 15, Number 1)

Background: The SF-36 and WHOQOL-BREF are available for international use, but it is not clear if they measure the same constructs. We compared the psychometric properties and factor structures of these two instruments. Methods: Data were collected from a national representative sample (n=11,440) in the 2001 Taiwan National Health Interview Survey, which included Taiwan versions of the SF-36 and WHOQOL-BREF. We used Cronbach's alpha coefficient to estimate scale reliability. We conducted exploratory factor analysis to determine factor structure of the scales, and applied multitrait analysis to evaluate convergent and discriminant validity. We used standardized effect size to compare known-groups validity for health-related variables (including chronic conditions and health care utilization) and self-reported overall quality of life. Structural equation modeling was used to analyze relationships among the two SF-36 component scales (PCS and MCS) and the four WHOQOL subscales (physical, psychological, social relations, and environmental). Results: Cronbach's alpha coefficients were acceptable (≥ 0.7) for all subscales of both instruments. The factor analysis yielded two unique factors: one for the 8 SF-36 subscales and a second for the 4 WHOQOL subscales. Pearson correlations were weak (< 0.3) among subscales of both instruments. Correlations for subscales hypothesized to measure similar constructs differed little from those measuring heterogeneous subscales. Effect sizes suggested greater discrimination by the SF-36 for health status and services utilization known groups, but greater discrimination by the WHOQOL for QOL-defined groups. Structural equation modeling suggested that the SF-36 PCS and MCS were weakly associated with WHOQOL. Conclusions: In this Taiwan population sample, the SF-36 and WHOQOL-BREF appear to measure different constructs: the SF-36 measures health-related QOL, while the WHOQOL-BREF measures global QOL. Clinicians and researchers should carefully define their research questions related to patient-reported outcomes before selecting which instrument to use.