

Convergent and Discriminant Validity of Quality of Life Questionnaires

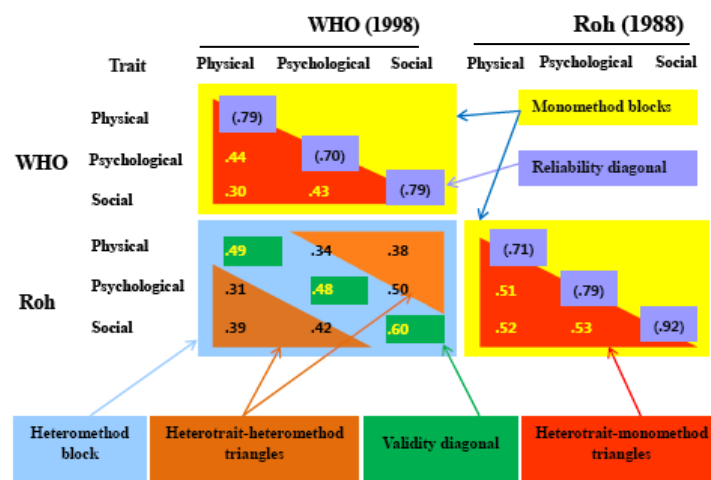
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INTRODUCTION : QOL has been increasingly used as a scientific concept (Felce, 1997). The concept is internationally being used (Schalock, et al., 2014). However, there is lack of consensus among different definition when quality of life measures (Smith, Avis, & Assmann, 1999). WHO (1997) defined QOL in the aspect of person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment. Roh(1988) defined QOL, which consists physical, psychological, social, neighbors, and family relations. These two definitions commonly include three variables, such as physical, psychological, and social aspects. Quality of life (QOL) has become a standard outcome measure in physical activity-related intervention and observational studies. Due to widespread use of QOL, many instruments have been developed and used. Few studies have compared the various QOL measures.

PURPOSE : The purpose of this study was to assess the convergent and discriminant validity of the quality of life (QOL) measures using Multitrait-Multimethod (MTMM) analysis (Campbell & Fiske, 1959).

METHODS : **PARTICIPANTS:** Two QOL questionnaires, WHO (1998) and Roh QOL for middle-aged adults (Roh, 1988) were administered to 297 (male = 150) college students selected from Seoul metropolitan area in South Korea **TOOLS:** Based on the review of dissertations and articles between 2000 and 2012 published in Korea, The two QOL questionnaires were selected by the order of number of applications in the previous research. These measures were composed of three sub-dimensions of physical, social, and psychological wellbeing. Seven-day test-retest reliability was acceptable for all three measures ($r=.70\sim.79$, $.71\sim.92$; WHO and Roh QOL, respectively). The MTMM analysis was used to evaluate the evidence of convergent and discriminant validity.

RESULTS : The convergent validity coefficient for physical wellbeing was $r = .49$ and the corresponding heterotrait- monomethod coefficients were $r = .30 - .44$ for WHO and $r = .51 - .52$ for Roh QOL, and heterotrait-heteromethod coefficients were $r = .31$ and $.39$. The convergent validity coefficient for social wellbeing was $r = .48$ and the corresponding heterotrait- monomethod coefficients were $r = .43 - .44$ for WHO and $r = .51 - .53$ for Roh QOL, and heterotrait- heteromethod coefficients were $r = .34$, $r = .42$. The convergent validity coefficient for psychological wellbeing was $r = .60$ and the corresponding heterotrait- monomethod coefficients were $r = .30 - .43$ for WHO and $r = .52 - .53$ for Roh QOL, and heterotrait-heteromethod coefficients were $r = .38$, $r = .50$.



DISCUSSION : The pattern of correlations in the MTMM matrix met the criteria of Campbell and Fiske (1959) for validity of these QOL tests to measure psychological well-being but not physical and social well-being in order to use for the youth and adult groups. Further studies and analyses are warranted to test the content-related validity evidence of physical, social, and psychological well-being sub-dimensions of the QOL tests developed for the adult and senior in order to use for the youth and adult groups.

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