

Development and Psychometric Properties of the Thai Health-Related Quality of Life Instrument for Dialysis Patients

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Abstract: This study sought to develop and assess the psychometric properties of the Thai Health-Related Quality of Life Instrument for Dialysis Patients (THAI-HRQOL-D). The conceptual definition and content domains of the instrument were developed through semi-structured interviews and a comprehensive literature review. Ferrans' Quality of Life conceptual framework was used to guide the research. Face validity of the instrument was determined via ten dialysis patients. Content validity was assessed via a panel of seven experts, and the initial psychometric properties and identification of inappropriate items were determined by 40 dialysis patients.

Data for final psychometric assessment of the instrument were collected from 420 Thai dialysis patients, who attended one of three dialysis centers in Bangkok or a dialysis center in Samutsakorn province, Thailand. The construct validity of the tool was determined through exploratory and confirmatory factor analysis.

The results revealed seven factors explained 54.86% of the variance. These factors, consisting of 37 items, including: health and functioning; psychological well-being; socioeconomics and family; living with dialysis; spirituality; living with symptoms; and, cognition. The measurement model was found to have a relatively goodness of fit with the data ($\chi^2=892.53$; $df = 603$ ($p<.001$); $\chi^2/df = 1.48$; RMSEA= 0.048; GFI = 0.820; and, CFI= 0.904). Cronbach's alpha coefficients for each of the subscales ranged from 0.557 to 0.889 and the total scale's Cronbach's alpha was 0.842. In addition, a 0.63 correlation was found between the THAI-HRQOL-D and the Thai Health Status Assessment Instrument providing evidence of the instrument's convergent validity. Concurrent validity was found between the THAI-HRQOL-D and two concurrent measures (serum albumin levels and hospitalizations of dialysis patients). Thus, it was determined the newly developed instrument demonstrated adequate reliability and validity for assessing health-related quality of life among Thai dialysis patients.

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Keywords: Health-related quality of life; Instrument development; Psychometric properties; Dialysis patients

Background

Chronic kidney disease (i.e. the slow loss of kidney function whereby the body is unable to adequately remove waste and excess water) is a long-term condition that has become more prevalent, worldwide, with Thailand being no exception.^{1, 2} In order to increase the survival of individuals afflicted with the disease, there is an increased need for renal

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