Assessing reliability and validity of the Chinese version of the Functional Independence Measure on Stroke Patients

Shu-Chen Hsiao
MSN, RN, Instructor, School of Nursing, Tzu Hui Institute of Technology, Pingtung, Taiwan & Doctoral Student
Doctoral Student, College of Nursing, Kaohsiung Medical University

Background:
Functional Independence Measure (FIM) is one of the most widely used measures of self-care performance. However, this scale has not been used to assess healthcare providers in Taiwan.

Purpose:
Study purposes were to: (a) translate the FIM into Chinese, (b) examine validity and reliability of the translated scale, and (c) use the scale to measure functional performance in a sample of Stroke participants in southern of Taiwan.

Methods:
Researchers used a backward translation approach to translate the FIM into Chinese in order to ensure translation accuracy. Researchers then administered the FIM Chinese version to 107 participants were enrolled from three hospitals in southern Taiwan. The study analyzed face validity, construct validity, internal consistency, item analysis, and criterion-related validity.

Results: 1. The Content Validity Index of the Chinese version of Functional Independence Measure Scale was .81; 2. The criterion related validity of Barthel Index scale were found to be statistically significant. (r = .904; p < .001); 3. Exploratory factor analysis with principal components analysis indicated the FIM revealed moderate inter correlations between subscales and high factor loadings also helped to clarify the psychometric meaning. 4. Reliability estimates the Cronbach's alpha and correlation coefficients, were 0.95 and 0.80..

Conclusion:
The reliability and validity data were outlined for the study support using the Chinese version of the FIM as a research instrument in measuring the patients with stroke in the Chinese population. It can be provide evidence exists that FIM scores can be used as an accurate predictor of outcomes in stroke patients and carrying out their daily activity.

Keywords: Functional Independence Measure (FIM), Chinese version; Reliability; Validity