Psychometric Evaluation of the Urologic Health Self-Management Scale among Women with Type 2 Diabetes

*Yuan-Mei Liao, Yi-San Tsai & Chia-Hui Li
*Institute of Clinical Nursing, School of Nursing, National Yang-Ming University / Email: ymliao@ym.edu.tw

Purpose
To develop the Urologic Health Self-Management Scale and to examine its reliability and validity

Methods
Design: Prospective psychometric study
Sample: A total of 210 women with type 2 diabetes
Measure: A study questionnaire containing 4 sections (1) Individual characteristics & habits, (2) the Urologic Health Self-Management Scale, (3) the SF-36 Health Survey, and (4) the 13-item Patient Activation Measure (PAM-13)
Data Analysis: Exploratory Factor Analysis (EFA), and estimation of the Cronbach’s Alpha, Intra-class Correlation Coefficient (ICC), and Pearson Correlation Coefficients

Results
EFA: A 34-item Urologic Health Self-Management Scale with 8 aspects (factors) which explained 66.62% of the total variance
Internal Consistency Reliability: Cronbach’s Alpha 0.88
Test-retest Reliability: ICC 0.99
Construct Validity: Significant Pearson Correlation Coefficients between the developed Scale (34-item) with the (1) SF-36 Health Survey (physical component summary $r=0.41$, mental component summary $r=0.22; p<0.01$), and (2) PAM-13 ($r=0.33; p<0.01$)

Urologic Health SELF-MANAGEMENT - the 8 aspects (factors)
- Self-control
- Perform pelvic floor muscle training
- Maintain good bladder habits
- Maintain ideal body weight
- Pay attention to the relationship between medications & symptoms
- Pay attention to diet intake & the urinary tract hygiene
- Pay attention to fluid intake
- Pay attention to urination related issues

Conclusions
1. Adequate reliability and validity of the 34-item Urologic Health Self-Management Scale were initially obtained
2. The Urologic Health Self-Management Scale can be used in clinical practice and research to assess women’s urologic health self-management behaviors or effects of relevant interventions