

Modeling Psychological and Physical Constructs  
Predicting Health Promoting Behaviors

Cecile A. Lengacher, RN, PhD

Jason W. Beckstead, PhD

University of South Florida College of Nursing

**Purpose:/Objectives:** The purpose of this study was to develop and test a model that estimates the influence of key psychological constructs (depression, role strain, and self esteem) and numbers of chronic health problems on engaging in health promoting behaviors.

**Method/Design:** A cross sectional, correlational research design employing structural equation modeling (SEM) was used to explicate the relationships among the latent constructs. Variables included four predictor variables (depression, role strain, self esteem and number of chronic health problems) and one outcome variable of engagement in health promoting practices.

**Sample:** A convenience sample of 228 predominately Caucasian women nurses (mean age 39) employed in Tampa Bay area hospitals were the participants.

**Instruments:** Four instruments were used to assess the constructs in the model: The Beck Depression Inventory, the Working Woman's Role Strain Inventory, The Coppersmith Self Esteem Inventory, and The Health Promoting Lifestyle Profile II Inventory.

**Analysis/Results:** SEM was used to examine the hypothesized influences among measured latent variables. The first step was to test the measurement model related to the constructs. Three indicators of each construct were constructed, and the fit of the model was acceptable based upon the high values of the GFI, AGFI, and CFI, and the small values for the RMSEA, SRMR and chi square statistic. Various structural models were tested based on Pender's theory. The final model which included role strain and depression as mediators between chronic health problems, self-esteem and health promoting behaviors fit the data well (based on the above indices) and accounted for 30% of the variance in health promoting behaviors.

**Discussion/Conclusions:** These findings support the hypothesized relationships in Pender's revised model. Specifically, findings show that the influences of *individual characteristics* (i.e. chronic health problems and self esteem) as predictors of health promoting behaviors are mediated by *behavior-specific conditions and affect* ( i.e. role strain and depression)