Engagement and disengagement scales: Common factor, correlational and reliability analyses

Jody Gill-Rocha
Mount Carmel College of Nursing, USA

In a preliminary educational intervention, the primary goal was to norm the Burch, Heller and Freed 63-item questionnaire (i.e., Student Engagement Survey; SES) on a sample of BSN nursing students. Burch, et al. believed learning activities, learning outcomes, and student engagement influence the development of the SES items. The participants (N=360) were BSN nursing students. Hypothesis 1: Determine whether engagement measured with the SES items would be a multi-dimensional construct. Hypothesis 2: Determine if the reliability estimates would be greater than 80. Hypothesis 3: SES engagement common factors would be negatively correlated with the avoidance coping, mental disengagement and behavioral disengagement scales.

Exploratory principal axis factor analysis found four common factors (eigenvalues: 17.176, 3.807, 2.942, and 2.151) accounting for 63.6% of the variance. Forty-one of the 63 items loaded on one of the physical engagement, cognitive engagement, deep learning engagement, and engagement skills factors. Coefficient alpha reliability estimates were .921 (Physical), .961 (Cognitive), .905 (Deep Learning), and .937 (Engagement Skills). Hypotheses 1 and 2 were supported by these findings. A correlational analysis found weak negative correlation coefficients among the four engagement common factors, avoidance coping, mental disengagement and behavioral disengagement scales. Support for hypothesis 3 was found. It appears nursing educators can use the four engagement common factors, with alpha reliability estimates greater than .80, in educational interventions with nursing students. The statistical findings provide preliminary validity for the engagement common factors based on the negative correlations with the avoidance coping, mental and behavioral disengagement scales.

Biography

Jody Gill-Rocha is an Assistant Professor at Mount Carmel College of Nursing. She is the Academic Department Leader for the Medical-Surgical course. She teaches the Adult Acute Care course, and is the Course Coordinator of the Infusion Therapy Lecture and Simulation course. She recently received the 2017 Excellence in Nursing-Nurse Educator Award. In the past year, she has published 10 posters at the local, state, regional, national and international nursing conferences.