Improved Education Research to Transform Nursing Education
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Improved measures of knowledge, motivation, reasoning and critical thinking will enable nurse educators and administrators to advance nursing performance. For this study, 182 maternity nurses were recruited from national nursing listservs explicitly chosen to capture multiple levels of experience from prelicensure to very experienced nurses. The three independent measures included a domain-specific Topic Knowledge Assessment (TKA), consisting of 24 short-answer questions, a motivation measure, with 20 questions indicating level of interest and engagement in maternity nursing topics and activities, and the Test of Relational Reasoning (TORR), a graphical selected response measure with 32 items organized in scales corresponding to four forms of relational reasoning: analogy, anomaly, antithesis, and antinomy.

The dependent measure was the Critical Thinking Task in Maternity Nursing (CT2MN), composed of a clinical case study providing cues with follow-up questions relating to nursing care. These questions align with the cognitive processes identified in a commonly-used definition of critical thinking in nursing. Reliable coding schemes for the measures were developed for this study. Key findings included a significant correlation between topic knowledge and individual interest. Further, the three individual difference factors explained a significant proportion of the variance in critical thinking with a large effect size. While topic knowledge was the strongest predictor of critical thinking performance, individual interest had a moderate significant effect, and relational reasoning had a small but significant effect. The findings suggest that these individual difference factors should be included in future studies of critical thinking in nursing. Strong measures of performance that are usable in multiple settings and across multiple levels of experience will enable the goals of the Future of Nursing report to be evaluated as well as foster the transformation of nursing care, ultimately improving patient outcomes.

During this presentation, the audience will be asked to participate in designing short-answer knowledge items, adapting a motivation measure to their area of practice, taking a reasoning test, and scoring a critical thinking measure. Hallmarks of strong measures will be discussed.