INTRODUCTION

Clinical reasoning is the non-linear analytical process of making decisions for the prevention, diagnosis, or treatment of problems facing a particular patient (Forsberg, Georg, Ziegert, & Fors, 2011; Shellenbarger & Robb, 2015). Nursing faculty often use virtual patients to assess their students' clinical reasoning abilities. Cook and Triola (2009) identified clinical reasoning as the only valid learning objective for a virtual patient simulation, yet they also found that most assessment instruments within virtual patient
programs employed an algorithmic approach, scoring the completeness of information elicited, instead of the cognitive process of clinical reasoning. At the time of this study, there were still no valid and reliable instruments designed to evaluate clinical reasoning in a virtual patient program.

METHODS

To measure the higher order thinking skill of clinical reasoning within a virtual patient program, the researchers first developed a conceptual framework of clinical reasoning within a virtual environment, then validated it with a group of subject matter experts in the field clinical reasoning. After the conceptual framework was validated, discrete components of the clinical reasoning framework were identified as areas for student assessment. Instruments were developed to measure these discrete components of clinical reasoning for BSN, RN-BSN, and MSN students in parallel, to control for differences in the learning populations.

RESULTS

A conceptual framework for clinical reasoning within a virtual patient simulation was constructed and content validated with a group of experts in clinical reasoning. Assessment instruments were developed to measure three components of clinical reasoning within the framework: data collection, therapeutic communication, and information processing. Each instrument was examined for evidence of internal consistency reliability and validity for BSN, RN-BSN, and MSN populations. All items showed high quality, and the instruments showed evidence of reliability and validity for each population.

CONCLUSION

Attendees of this presentation will understand the development and validation process involved in identifying a new conceptual framework, as well as the methods used to develop valid and reliable assessment instruments to measure their conceptual framework.