Competence is a commonly used concept in nursing education, yet there is no widely accepted definition, consensus on the essential components, or standardized instrument to measure it in the clinical setting. Concept analyses describe attributes of competence using cognitive terms such as critical thinking and professional role modeling (Valloze, 2009), and psychomotor terms such as performance (Garside & Nhemachena, 2013). Several leading nursing organizations in the U.S. (e.g., NLN, AACN) have developed models of essential behaviors and competencies considered important in preparing a competent nurse. In the U.S. and Canada, minimal competence for nursing practice is measured by the NCLEX-RN, which is written by the National Council of State Boards of Nursing and based on actual nursing practice expectations. Nursing education programs are charged with evaluating competence in their students, both in the evaluation of specific skills, and in the evaluation of general competence at the end of the program. However, there is little consistency in how competence is measured in nursing education and no standardized instruments.

This presentation will report on findings from a larger NLN-funded research synthesis on clinical evaluation in nursing education programs. Specifically, the studies focusing on clinical evaluation of competence will be examined. The research synthesis method described by Cooper (2010) was used to guide the study, and the nursing research literature was searched through March 2017. A total of 88 research studies on clinical evaluation of nursing students were analyzed and categorized into 10 categories. A total of 35 studies (40%) examined the topic of competence. Of these, the majority of studies (n = 22) had the aim of measuring general competence at the end of a course or entire nursing program. About one third of the studies evaluated a specific type of competence, including competence in a specific patient care environment such as perioperative care (Ajorpaz, Tafreshi, Mohtashami, Zayeri, & Rahemi, 2016), related to a specific clinical skill including vaccinations (Nikula, Puukka, & Leino-Kilpi, 2012) and medication calculations (Macdonald, Weeks, & Mosely, 2013), or a professional nursing skill such as critical thinking (Pitt, Powis, Levet-Jones, & Hunter, 2015) or cultural competence (Jeffreys & Dogan, 2013). Analyses of the studies revealed most used researcher-developed instruments, and many used student self-report measures. Analysis of research designs indicated most of the studies were categorized as low levels of evidence (Level 6 – single descriptive or qualitative study) according to Melnyk and Fineout-Overholt's (2011) Levels of Evidence criteria.

The evaluation instruments included a variety of components to measure competence, including skill performance, knowledge, professional behaviors, personal characteristics such as curiosity or self-confidence, and affective domain components such as caring and honesty. An analysis of the differing components of competence measures across studies will be provided. Few of the measures were based on national standards of competence, and those that did all originated outside the U.S.

The current state of the science in the measurement of competence in clinical evaluation demonstrates that there is no consistent definition of competence, either globally or within nations. Based on the studies reviewed, there is little consensus on the essential components of competence, and there is a lack of reliable and valid instruments being used to measure competence. Many of the studies reviewed relied on student self-evaluation of competence. In addition, a variety of evaluators were used to measure clinical competence, including faculty and preceptors. Some of the studies that compared different evaluators’ opinions of competence (e.g. students’, instructors’, preceptor’s) showed disagreement among evaluators, even when using the same evaluation instrument.
To advance the science of nursing education, there needs to be reconciliation of the differing definitions and standards of competence provided by national organizations and experts in nursing practice. Instruments measuring competence must be based upon a unified definition, with additional items added to reflect the needs of specialty areas or skills. Implementation of a more standardized approach to the measurement of clinical competence will facilitate comparison of findings across programs, nationally and internationally. Other issues that must be resolved include who should measure student competence, and how consistency among evaluators can be ascertained. It is important that nursing education researchers begin to address these important issues related to the measurement and evaluation of clinical competence in order to foster the development of widely accepted, reliable, and valid measures of clinical competence that can be tested through multi-site research studies in a variety of programs to build the foundation of nursing education science. The development and testing of such instruments is essential to foster the educational development of clinically competent nurses nationally and internationally.

Title:
Clinical Evaluation of Competence: What Are We Measuring?

Keywords:
clinical evaluation, competence and nursing education

References:


Abstract Summary:
The state of the science evaluating competence in clinical nursing education will be presented. This review of research studies will include measured components of competence, instrument properties, and evaluation methods. The implications of lack of standardized definitions and measures of competence in nursing, nationally and internationally, will be discussed.

**Content Outline:**
The learner will be able to evaluate the state of the science in clinical evaluation of competence in the US and internationally. Specific topics discussed will include:

- Background on issues related to evaluation of clinical competence in nursing education
- Description of the methodology of the overall study on clinical evaluation in nursing
- Description of the studies on clinical evaluation of competence in nursing education (demographics, methods, countries of origin)
- Analysis of the competence measures used in the studies (attributes, theory/guideline base, psychometric properties)
- Synthesis of the state of the science in clinical evaluation of competence in nursing education
- Discussion of the implications of lack of standardization of definitions or measures of competence
- Recommendations for nursing education and research

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