



The Importance of Evaluating the Impact of Continuing Nursing Education on Outcomes: Professional Nursing Practice and Patient Care

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Abstract

Continuing nursing education (CNE) supports the professional practice of nursing and the delivery of safe, evidence-based, high-quality care for patients. Nurse Educators play a critical role in developing educational activities that meet the learning needs of registered nurses. Nurse Educators also function as content experts for planning interprofessional education (IPE) designed to improve team performance and/or patient outcomes. Evaluating the impact of educational activities on outcomes is an essential competency, however Nurse Educators may lack the knowledge, skills, and abilities to identify and measure outcomes. In addition, changes in accreditation criteria coupled with a demand for ensuring a competent nursing workforce also require Nurse Educators to possess a new level of knowledge, skills, and abilities. A variety of resources exist, including professional associations and national learning competencies, to support Nurse Educators in developing and maintaining outcome assessment skills.

Key words: continuing nursing education, interprofessional, outcome, outcome measure, outcome measurement, professional nursing practice, nurse educator

Introduction

The ultimate outcomes of continuing nursing education (CNE) activities are to improve the professional practice of nursing and thereby the care that is provided by registered nurses to patients. It is therefore critical that those who plan, implement, and evaluate CNE activities do so in a manner that incorporates identifying and measuring outcomes that demonstrate how CNE has impacted the practice of nursing and patient care.

Historically, evaluating outcomes of CNE activities at the level of practice impact has rarely been accomplished. Until recently, accreditation criteria have permitted providers of CNE to evaluate activities at the level of participation or satisfaction. Recent changes to ANCC accreditation criteria, however, require providers of CNE to evaluate the overall impact of their programs on the professional practice of nursing and/or patient outcomes. This step, reflecting the importance of registered nurses to patient outcomes, is validated through peer-reviewed research studies (Aiken, Cimiotti, Sloane, Smith & Neff, 2011; Kliger, Lacey, Olney, Cox & O'Neil, 2010; Kutney-Lee, Lake & Aiken, 2009; Lange, Wallace, Gerard, Lovanio, Fausty & Rychlewicz, 2009; Lucero, Lake & Aiken, 2010; Stein, Griffin, Taylor, Pichert, Brandt & Ray, 2001; Zurmehly, 2013). In addition, today's healthcare environment, including academic, practice, administrative, and research settings, requires registered nurses to be lifelong learners as the world of healthcare continues to evolve.

Changes in accreditation criteria coupled with a demand for ensuring a competent nursing workforce within an environment of often limited resources require Nurse Educators to possess a new level of knowledge, skills, and abilities. CNE activities need to incorporate adult learning principles and other educational theoretical frameworks that link educational content to the challenges and responsibilities faced by nurses in a complex healthcare environment. Nurse Educators must be able to identify nursing-specific practice gaps and develop educational activities to address those gaps. As part of an interprofessional healthcare team, Nurse Educators must also learn to evaluate gaps in team performance and serve as educational and content planners for interprofessional educational activities. Interprofessional activities can then deliver content that is appropriate for the scope of practice of an interprofessional healthcare provider audience. Interprofessional activities designed to improve team performance requires Nurse Educators to expand beyond nursing expertise to incorporate the needs of multiple healthcare practitioners such as physicians, pharmacists, and social workers among many others. The utilization of educational design processes and innovative methods of delivery that may include but are not limited to simulation, computer-based interactive programming, and web-based applications are excellent opportunities for the Nurse Educator to facilitate transfer of new knowledge or skills into practice. Predetermined outcome measures guide selection of educational approaches and structure of learning experiences and provide opportunities for both short-term and long-term assessment of learner change and performance. Outcome metrics, or quantifiable outcome measures, serve as a foundation for assessing the value of CNE for improved performance, and the value of investing in CNE for the individual nurse, patients and the health care system.

The role of the Nurse Educator is critical to the professional practice of nursing and to positive patient outcomes. Competencies for Nurse Educators are evolving in response to changes in the healthcare environment, including the need to validate the importance of continuing

education to healthcare practitioner performance, the impact of performance on patient care, and the importance of interprofessional education. The Nurse Educator can fill a unique and pivotal role in aligning desired outcome measures for registered nurses' performance with relevant and timely CNE. Professional education, in combination with performance assessment on individual and team levels, can validate and reinforce current standards of care that ultimately benefit the patient.

Outcome Measurement

An outcome is defined as “something that follows as a result or consequence” (www.merriam-webster.com). Outcome measure can be defined as a specific and quantifiable variable by which attainment of objectives may be judged. Outcome measurement can be defined as the process of measuring outcomes.

The literature describes a number of taxonomies for outcome measures, including taxonomies that reflect both healthcare and education. Two taxonomies that define levels of healthcare outcomes in the literature are Wilson and Cleary's Taxonomy of Biomedical and Health-Related Quality of Life Outcomes and the Economic, Clinical, Humanistic Outcomes (ECHO) Model (Wilson & Cleary, 1995; Gunter, 1999). These taxonomies define the language of healthcare outcomes in relation to patients, such as symptoms, functional status, and quality of life, and of healthcare outcomes, such as clinical outcomes (survival odds, death, myocardial infarction), humanistic outcomes (health-related quality of life, patient symptomatic reports, healthcare burden), and economic outcomes (direct cost, health resource utilization, quality-adjusted life years). Miller's Model of Clinical Competence and Moore's Seven Levels of CME Outcomes are examples of taxonomies that define levels of evaluation in relation to healthcare provider performance (Miller, 1990; Moore, Green & Gallis, 2009). Miller's Model defines four levels of clinical performance: knows, knows how, shows how, and does. Moore's Model expands on Miller's framework, starting with participation and then moving to satisfaction, learning (declarative knowledge), learning (procedural knowledge), competence, performance, patient health, and population/community health.

Regardless of what outcome measure is chosen, it is important to ensure that outcome measurement incorporates the principles of reliability and validity. Reliability is the degree to which a score or other measure remains unchanged upon test and retest (when no change is expected) or across different evaluators. Validity is the degree to which a measure assesses what it was intended to measure. When planning CNE activities, it is essential to understand these definitions and principles as they are used to ultimately evaluate the impact of the CNE activity on the professional practice of nursing, interprofessional team performance, and patient care.

For example, a desired outcome of a series of CNE activities might be to reduce obesity rates of local community residents seen in a nurse-run clinic. Outcome measures might include client weight and body mass index (BMI). Outcome measurement would then be the process of gathering the baseline weight and BMI of all clients seen in the clinic and tracking weight and BMI over a 6-month period for all patients with a body mass index > 30. It would be important when measuring outcomes to ensure that individuals were weighed using the same scale and under the same circumstances (clothed but without shoes, for example), which would incorporate the principles of reliability and validity. Reliability is incorporated by using the same scale to measure weight over time and under the similar circumstances, and validity is that a scale is a valid measure of weight.

Nurse Educator Competencies and Outcome Measurement

Nurse Educators are increasingly aware of the importance of measuring outcomes for CNE beyond the levels of participation and satisfaction. A review of articles in journals such as the *Journal of Continuing Education in Nursing*, the *Journal of Nursing Professional Development*, and the *Journal of Continuing Education in the Health Professions* demonstrates a trend toward more sophisticated methods of measuring outcomes. A list of research studies that link CNE to patient outcomes, changes in behavior or practice, and changes in knowledge can be found on the ANCC Accreditation website, in the Resource Center (see left navigation) (www.nursecredentialing.org/Accreditation/ResourcesServices). Outcome measures, including safety climate such as medication safety, use of restraints, and fire safety, are also included in the list of studies as potential precursors to changes in behavior or practice.

Many Nurse Educators, however, still struggle to identify and measure appropriate outcomes that reflect the impact of CNE activities. Challenges in outcome assessment may reflect lack of academic or formal preparation in outcome measurement. Additionally, past practices customarily focused more on the process of educational activity development and implementation and less on evaluation, other than learner satisfaction, thereby limiting opportunities to develop this critical competency. Challenges may also be the result of Nurse Educators who fail to take appropriate steps in the assessment and planning phases of an educational activity. It is critical that Nurse Educators determine the source of a professional practice gap (single profession or interprofessional), design educational activities to close the gap, and clearly define what is expected to change in terms of learner knowledge, competence/skill, performance, or patient outcomes as a result of participation in the activity. Failure to take these steps may result in the inability to identify and measure an appropriate outcome or outcomes. Finally, failure to identify and measure outcomes may be an unintended consequence of competition for time and resources when responsibility for CNE is just part of a Nurse Educator's job in addition to demands such as administrative responsibilities, staffing,

quality, or compliance. Nurse Educators must function as skilled professional development specialists, a role critical to the success of ensuring the link between CNE and improving professional nursing practice, team performance, and patient outcomes, and seek out opportunities to develop and maintain the requisite knowledge, skills, and abilities.

Over the past decade, multiple studies such as the Institute of Medicine's *"To Err is Human: Building a Safer Health System"* and *"Health Professions Education: A Bridge to Quality"* have highlighted the need for ensuring competence in the delivery of care. Nurse Educators, as educational experts, need to be aware of the essential competencies that are critical to their own professional development and seek out resources to help them learn and grow. Three associations—the American Nurses Association in collaboration with the Association for Nursing Professional Development, and the Alliance for Continuing Education in the Health Professions— published competencies for Nurse and/or Health Professional Educators. The American Nurses Association and the Association for Nursing Professional Development published [*Nursing Professional Development: Scope and Standards of Practice*](#), which outlines the essential competencies for Nurse Educators. Similarly, the Alliance for Continuing Education in the Health Professions recently published [*National Learning Competencies*](#). The competencies in each document focus on core competencies for continuing education (CE) educators that include identifying and measuring outcomes related to continuing education.

Planning to Measure Outcomes

Identifying outcomes to evaluate the impact of CNE on professional nursing practice, team performance, and patients starts in the planning stages of an individual educational activity or series of activities. Nurse Educators begin with a change in a standard of care, a problem in practice performance, or an opportunity for improvement. This analysis forms the basis of a professional practice gap, or the difference between the current state of practice and the desired state of practice. Nurse Educators then determine the reasons for the practice gap. This process defines the needs assessment and provides insights into approaches for addressing the source of the gap in practice. When conducting a needs assessment, the process outlined by Moore, Green, and Gallis (2009) describes a top-down approach using a pyramid model. Moore and colleagues (2009) recommend using backward planning by starting at the top of the pyramid and conducting a gap analysis at each outcome level until no gap exists. Once it is determined that an outcome level has been met, Nurse Educators should (a) target the educational activity or series of activities for closing the gap at the next-highest level, (b) clearly articulate the outcome(s), and (c) determine the outcome measure(s). This process will permit Nurse Educators to evaluate when the outcome level has been attained. The desired outcome(s) is also used to determine the appropriate content for the activity, teaching/learning methods, and method of evaluation. It is important to note that a professional practice gap

may exist for registered nurses regardless of the practice setting. In addition, professional practice gaps are not limited to clinical practice and may also exist in other areas of professional work such as administration, education, and research.

An International Perspective

Nurse Educators across the globe struggle with the same issue: providing high-quality educational activities designed to improve the practice of nursing and patient outcomes within complex and varied healthcare settings. The World Health Organization (WHO) and the International Council of Nursing focus much attention on improving healthcare disparities worldwide through strategies that include continuing education for nurses.

The WHO has long acknowledged the crucial contribution of nurses and midwives to improving the health outcomes of individuals, families, and communities. Acting both as individuals and as members and coordinators of interprofessional teams, nurses and midwives bring people-centered care closer to the communities where they are most needed, thereby helping improve health outcomes and the overall cost-effectiveness of services. The WHO directive titled *Strategic Directions for Strengthening Nursing and Midwifery Services (SDNM) 2011-2015* (World Health Organization, 2011) describes collaborative action as a cornerstone of improved health outcomes for individuals, families, and communities through the provision of competent, culturally sensitive, evidence-based nursing and midwifery services (World Health Organization, 2011). Key results areas of the SDNM include education, training, and career development as critical to achieving strategic goals.

An Interprofessional Focus

An increasing focus in the continuing education landscape is interprofessional education (IPE). Within both academic and practice settings, IPE has been identified as a strategy to improve interprofessional collaborative practice (IPCP) and improve healthcare quality outcomes (Interprofessional Education Collaborative Expert Panel, 2011). A small but compelling body of evidence has demonstrated the relationship between teamwork and outcomes, with improved teamwork resulting in more positive outcomes for patients, healthcare providers, and organizations (Braithwaite, Westbrook, Nugus, Greenfield, Travaglia, Runciman, Foxwell, Devinney & Westbrook, 2012; Buljac-Samardzic, Dekker-van Doorn, Wijngaarden & van Wijk, 2010; Goldman, Zwarenstein, Bhattacharyya & Reeves, 2009; Hammick, Freeth, Koppel, Reeves & Barr, 2007; Irajpour, Norman & Griffiths, 2006; Reeves, Zwarenstein, Goldman, Barr, Freeth, Hammick & Koppel, 2009; Reeves, Zwarenstein, Goldman, Barr, Freeth, Koppel & Hammick, 2010). Therefore, Nurse Educators must develop the skills needed to perform such functions as identifying professional practice gaps of healthcare teams and members of other professions, collaboratively planning interprofessional educational activities as members of an

interprofessional planning team, and evaluating educational activity outcomes for interprofessional learners.

Conclusion

The Nurse Educator plays a crucial role in the healthcare delivery system. Nurse Educators, by developing educational activities designed to meet the learning needs of registered nurses with profession-specific needs and learning needs of the interprofessional healthcare team, positively impact the practice of nursing and patient outcomes. Evaluating the impact on outcomes validates the importance of continuing education for the nursing profession, the value of nurses' contributions to interprofessional teams, and ultimately the delivery of safe, high-quality patient care.

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