Featured Article

A Multisite, Multi—Academic Track Evaluation of End-of-Life Simulation for Nursing Education

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Abstract
Background: Opportunities for students to care for end-of-life patients are limited in undergraduate nursing programs.
Method: Students participated in a quasi-experimental study evaluating knowledge, levels of self-confidence, and self-reported communication skills in caring for a dying patient, as well as satisfaction with the high-fidelity simulation.
Results: The convenience sample of 370 associate's degree, traditional baccalaureate, and accelerated baccalaureate nursing students demonstrated a significant increase in knowledge, regardless of role played in the scenario, as well as high levels of self-confidence, self-reported communication skills, and satisfaction with the pedagogical approach.
Conclusions: Results showed significantly enhanced student knowledge in end-of-life care. Findings support end-of-life simulation as a strong and viable pedagogical approach to learning.

Students need to be prepared to provide effective nursing care to patients in a complex health care environment. However, lack of quality clinical sites and agency restrictions often interfere with optimizing student learning

(McNelis & Ironside, 2009). Recent developments in educational technologies make simulation available for effective experiential and active learning.

Nursing students do not always have the opportunity to provide end-of-life care during their undergraduate education, although it is important for them to have the knowledge, self-confidence, and communication skills to

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provide such care. Students have reported feeling hesitant and uncomfortable when caring for an end-of-life patient (Smith-Stoner, 2009). A simulation incorporating end-of-life care can provide this experience for all nursing students and give them opportunities to explore their feelings about death, as well as experience in providing care for patients who are dying (Smith-Stoner, 2009).

> **Key Points**
> - Following a simulation intervention, all participants increased their knowledge of end-of-life care, had high levels of self-confidence in caring for a dying patient, and had high levels of self-reported communication skills in working with end-of-life patients.
> - Students in the observer role increased their knowledge of end-of-life care at least as much as students in other roles.

An end-of-life simulation was developed for senior baccalaureate and accelerated-track students and for upper level associate's degree students. To evaluate the end-of-life simulation and student learning outcomes, a study was conducted in four schools of nursing to address the following research questions:

When incorporating an end-of-life simulation:

1. Is there an increase in students' knowledge related to end-of-life care from pretest to posttest as measured by the Knowledge Related to End-of-Life Care instrument?
2. What is the level of students' self-confidence in caring for a dying patient after the simulation, as measured by the Self-Confidence in Caring for a Dying Patient and in Nursing instrument?
3. What is the level of students' self-reported communication skills in working with end-of-life patients after the simulation, as measured by the End-of-Life Communication Assessment tool?
4. Are students satisfied with the learning methodology for end-of-life issues and care of the dying patient, as measured by the Satisfaction With the Instructional Method questionnaire?

Review of Literature

Simulation

Schools of nursing and other health profession programs have been challenged to use expanding technologies and support innovations throughout the educational process (Institute of Medicine, 2004; Jeffries, 2007). These educational innovations include reform in the methods, approaches, and settings used to provide clinical education, in anticipation that future "patient free" learning environments (such as simulation centers) will enhance the training of health professionals while minimizing harm to patients (Jeffries, 2007). Consistent with this trend toward becoming increasingly more innovative in educational practices, the National League for Nursing (2003) has challenged faculty to design new methods for clinical education in an effort to prepare graduates to thrive in the current health care environment. New graduates working in complex health care environments need appropriate education and skill sets for the 21st century, but many nursing curricula today continue to look as they did 20 years ago, with nursing students being prepared by antiquated methods (Jeffries, 2005).

A recent survey of more than 400 baccalaureate nursing programs found several methods for teaching death and dying: lecture, seminar/small group discussion, clinical case discussions, video or film, hospice visit, role-playing, simulated patients, funeral home visit, and a guest speaker with a terminal illness (Dickinson, 2007). Lecture was reported by 94% of the nursing programs, making it the most common strategy, whereas only 5% reported simulated patients as a teaching method for end-of-life issues (Dickinson, 2007). The lecture format has been criticized for focusing on the curriculum content while missing the anxiety, pain, and suffering that can be associated with a death (Dickinson, 2007). Among the strategies suggested to assist educators in meeting student learning needs and develop practice competencies are e-learning, virtual reality, and scenario-based simulation (Koerner, 2003; Ziv, Wolpe, Small, & Glick, 2003).

The demand on health care providers has become more complex (Koerner, 2003; Long, 2004) because of the increased complexity of patient care situations, the need for rapid decision making despite conflicting or incomplete information, advanced technology, and increased need for collaboration among members of the health care team (Hamman, 2004). Such realities challenge nurse educators and others in the health professions to design teaching, learning, and evaluation strategies that enhance students' abilities to practice safely and effectively in this health care environment. The use of scenario-based simulation holds exceptional promise for education, particularly the education of nurses (Jeffries, 2005).

Competencies of End-of-Life Care

Fifteen competencies have been identified for nurses to provide quality care to patients and families during end-of-life care (American Association of Colleges of Nursing, 2004). These competencies include providing comfort care to the dying, communicating effectively and compassionately, using standardized assessment tools to collect data regarding symptoms, and using assessment data to formulate a plan of care for symptom relief (American Association of Colleges of Nursing, 2004). These competencies help achieve the overall goal for end-of-life care: to ensure