Featured Article

Interprofessional Error Disclosure Simulation for Health Professional Students

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Abstract
Background: To describe and evaluate an interprofessional simulation training for medical error disclosure including dental medicine, nursing, and pharmacy students.
Methods: Students from three health profession programs were required to review a video and content material on error disclosure prior to the simulation. Students were organized into 48 interprofessional teams, consisting of four to five members each for the simulation. The standardized family member roles were portrayed by eight students selected from the theater department. Each interprofessional team participated in one disclosure simulation and observed two other teams where the standardized family member reacted in a relieved, angry, or sad/distrustful affect. The simulation experience required 2.25 hours of student time. Knowledge and attitudes were assessed using a pre–post simulation design. An evaluation to obtain participants feedback on the experience was also administered.
Results: A total of 202 students participated in the simulation training including 49 third-year dental, 74 senior nursing, and 79 third-year pharmacy students. The knowledge assessment indicated a significant improvement after completion of the simulation for all health disciplines. A significant improvement in most attitudes toward error disclosure was also demonstrated by each profession after the simulation.
Conclusions: Error disclosure simulation training can be an effective interprofessional training event. The simulation training program appeared to be successful in enhancing student knowledge and attitudes about error disclosure as an interprofessional team. Overall, students perceived the training as a positive experience.

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Key Points

- Dental medicine, nursing, and pharmacy students demonstrated increased knowledge of medical error disclosure after training and participation in an interprofessional simulation.
- Dental medicine, nursing, and pharmacy students demonstrated improved attitudes about error disclosure after participation in the simulation.
- Overall, student satisfaction with the interprofessional simulation and training was a positive experience.

Over the past decade, health care has progressed into an increasingly complex and specialty driven system. As the health care system evolves, the focus on quality and safety must be maintained if not increased by enhancing collaboration and communication between all members of the health care team. In the landmark study produced by the Institute of Medicine (IOM) (Kohn, Corrigan, & Donaldson, 2000), *To err is human: Building a safer health system*, the authors reported preventable hospital errors to be one of the leading causes of death in the United States. The development of high functioning, collaborative, and effective health care teams has been recommended as the foundation to providing safe, effective, patient-centered care. Developing effective, collaborative, health professional teams is critical to achieving enhanced quality of care (International Nursing Association for Clinical Simulation and Learning Standards Committee, 2016; Interprofessional Education Collaborative Expert Panel [IPEC], 2011; Meleis, 2016; Reeves, Perrier, Goldman, Freeth, & Zwarenstein, 2013). The route to the development of these teams is enhanced interprofessional education (IPE) prior to entrance into the workforce (Meleis, 2016). IPE is defined by the World Health Organization as "when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes" (World Health Organization, 2010, p. 10). IPE provides students in the health care professions exposure to environments and situations that will enhance their communication and care delivery skills as well as teach them respect for each other's discipline, ultimately empowering them to be the most valuable care team member (Careau et al., 2014; Etchegaray et al., 2014; Moore, Green, & Gallis, 2009). Through efforts of the IPEC expert panel and six professional organizations, four interprofessional core competency domains were identified (IPEC, 2011). The competency domains include values and ethics for interprofessional practice, roles and responsibilities, interprofessional communication, and teams and teamwork. The IPEC competencies inform the development of simulations and outcome assessments, such as the ones used in this study.

With greater than 100,000 patients per year suffering from reported medical errors (IOM, 2000), greater emphasis is needed in teaching the practice of reporting medical errors to patients. Medical errors are defined by the IOM as the failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim. Although ethical and professional guidelines are clear that health care providers have a responsibility to disclose medical errors, the incorporation of training on disclosing medical errors is still not widespread in health profession education or hospital staff training in the United States (Brock et al., 2013; Mazor, Simon, & Guwitz, 2004). Health professionals often fear disclosing errors to patients due to the possibility of legal, professional, and administrative repercussions (Robinson Wolf & Hughes, 2008). A review of published studies of error disclosure curricula for physicians and medical students between 1960 and 2011 by Stroud, Wong, Hollenberg, and Levinson (2013) revealed that when it does occur, the training often consisted of brief, single encounters without collaboration among professions.

There are a limited number of studies in the health professional literature related to medical error disclosure (Stroud et al., 2013). Much of the literature reflects training solely with medical students (Barrios et al., 2009; Brewster et al., 2005; Gilles, Speers, Young, & Fly, 2011; Gunderson, Smith, Mayer, McDonald, & Centomani, 2009; Halbach & Sullivan, 2005; Stroud et al., 2013). Physician training has been reported to include the use of standardized patient simulation to develop skills in medical error disclosure (Stroud, McIlroy, & Levinson, 2009; Sukalich, Elliott, & Ruffner, 2014). One study described the training of pharmacy students in learning how to communicate about medical errors (Noland & Rickles, 2009). These authors advocated for increased training about how to disclose medication errors. Two abstracts and one published manuscript in the pharmacy literature described error disclosure as an interprofessional experience (Jones, Pieifle, & Pisacano, 2013, Nappi, Shrader, Kern, Blue, & Leaphart, 2013; Ragucci, Kern, & Shrader, 2016).

There are few reports in the nursing literature describing the nurse's role and training in the error disclosure process, although authors have recognized the importance. Four