Nurse Education in Practice 14 (2014) 740–746

Contents lists available at ScienceDirect

Nurse Education in Practice

journal homepage: www.elsevier.com/nepr

Learning and teaching in clinical practice

Qualitative evaluation of a standardized patient clinical simulation for nurse practitioner and pharmacy students

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ARTICLE INFO

Article history:
Accepted 15 October 2014

Keywords:
Interdisciplinary communication education
Nursing students
Graduate education
Pharmacy students
Graduate patient simulation

ABSTRACT

This article describes a qualitative evaluation of an interprofessional educational experience for nurse practitioner and pharmacy students using standardized patients and physicians role-playing physicians in clinical scenarios. This experience included the development of two clinical scenarios; training of standardized patients, providers, and faculty facilitators; pre-briefing preparation; partial facilitator prompting simulations; and facilitated debriefings. Forty-six students participated in the formative simulation. Small groups of students and faculty facilitators worked through two clinical scenarios that were based on the expected emergence of the patient-centered medical homes. The scenarios incorporated different interprofessional communication modes, including in-person, telephonic, and video-conferencing. Time-in/time-out debriefings were incorporated to provide guidance to students about how to engage in interprofessional collaboration. After completion of the scenarios, facilitated group debriefings allowed for reflection on communication strategies and roles. Immediately following the learning activity, 30 volunteer focus group participants provided comments anonymously in a semi-structured format. Conventional content analysis was used to identify overarching themes. Participants expressed improved understanding of individual roles, increased confidence, and a better sense of interprofessional support. The educational experience themes included the benefits of a realistic nature of the simulation and the need for improved student orientation to roles and expectations prior to the clinical simulations.

Introduction

Interprofessional collaboration (IPC) and interprofessional education (IPE) enhances patient safety and satisfaction, as well as reduces tension and conflicts among healthcare professionals. However, healthcare professionals often lack sufficient knowledge about the role other professionals play in the healthcare team nor have the competencies to engage successfully in interprofessional teamwork (Norgaard et al., 2013). The risk of errors in patient care increases with ineffective communication.

The Institute of Medicine's [IOM] reports (2001, 2003, 2011) highlight IPC and IPE as essential for transforming health care. Despite the inclusion of IPC in nurse practitioner competencies and pharmacy standards, the use of IPE is limited in both educational programs (American Association of Colleges of Nursing [AACN], 2010, 2011; Accreditation Council for Pharmacy Education, 2011). Teaching teamwork and collaboration are critical to the future of healthcare. They are vital factors in the development of mutual respect, maximum use of collective resources, awareness of individual accountabilities, and competence within respective scopes of practice (Dow et al., 2012). Barriers to IPE include deep-seated beliefs about healthcare professionals' unique educational paths, long-standing incongruent educational curricula, along with conflicting academic calendars. To overcome these barriers to IPE,

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http://dx.doi.org/10.1016/j.nepr.2014.10.005
1471-5953/

simulation and web-based training have been suggested as educational methods (IOM, 2010). Despite this recommendation, there is limited research on the effectiveness of simulation in providing IPE for nurse practitioner and pharmacy students.

This project involves a qualitative evaluation of the use of an interprofessional educational experience, which includes clinical simulations with partial facilitator guidance, standardized patients, and physicians role-playing physicians. The authors will assess its effects on promoting important clinical roles, enhancing interprofessional student learning, and collaborative functions of each represented profession with this novel instructional design.

Background

Numerous organizations speak to the value of interprofessional collaboration and education. The American Association of Colleges of Nursing and the Interprofessional Education Collaborative declared that interprofessional practice is fundamental for improving patient care outcomes, including clinical prevention and health promotion goals; therefore, it is a key component of a healthcare professional's education and lifelong learning (American Association of Medical Colleges [AAMC], AANC, 2010; Interprofessional Education Collaborative [IEC], 2011). The World Health Organization defines interprofessional education as shared learning among students from two or more health professions (IEC, 2011). In addition, the Joint Commission developed the National Patient Safety Goals which include the promotion of efficient and effective communication between all healthcare providers (Joint Commission, 2007).

Nurse practitioners (NPs) in the United States of America are advanced practice registered nurses who assess patients, order and interpret diagnostic tests, make diagnoses of acute and chronic illnesses, order treatments including prescription medications, and teach patients. NPs are independently licensed healthcare providers who provide nursing and medical services in primary care, long-term care, acute care, and specialty practice settings. Most have graduate level education, including master's, post-master's or doctoral degrees (American Academy of Nurse Practitioners, 2013). Collaboration between nurse practitioners and other multidisciplinary team members has been shown to improve quality of care and reduce costs (IOM, 2011; Suter et al., 2012; Varizani et al., 2005). It is therefore important for students in all healthcare professions, including nurse practitioners, to learn how to provide integrated, high-quality care to patients within the evolving health care system through collaboration.

Healthcare professions traditionally use didactic lectures and clinical rotations for teaching discipline-specific knowledge and skills. However, students in outpatient centers, primary care offices, or community pharmacies might not be exposed to the problem-solving that takes place in interdisciplinary collaboration (Titzer et al., 2012). Evidence supports the use of various types of simulation, such as high-fidelity simulation, human patient simulators, and role playing to improve learner outcomes (Murdoch et al., 2014). High fidelity simulation, or simulation which is believable and realistic, is associated with improved learner outcomes in a positive dose–response relationship, such that learning outcomes improve with an increased number of simulation practice sessions (McGaghie et al., 2006). Learners are more likely to master key skills when the educational outcomes are well-defined and appropriate for their level of training, as can be done in high-fidelity medical simulations (International Nursing Association for Clinical Simulation and Learning [INACSL] Board of Directors, 2011a,b; Issenberg et al., 2005). This particular type of training can provide opportunities to experience, among other things, clinical situations involving team dynamics, communication and problem solving making simulation an ideal tool for interprofessional learning (Leonard et al., 2010; Titzer et al., 2012).

Simulation has been used successfully to implement learning strategies among healthcare professionals. Interprofessional simulation helps students adapt to a team environment (Titzer et al., 2012) and enables students to understand overlapping roles (Dow et al., 2012). Three studies also suggest a benefit from introducing interdisciplinary learning, in that it promotes shared responsibility for patient care (Engum and Jeffries, 2012; King, 2012; Rosenfield et al., 2011). Other interprofessional activities integrated into curricula are mentioned in the literature. Activities include an introductory pharmacy practice experience (IPPE) which included an orientation session focused on interdisciplinary health care and professionalism (Turner et al., 2004; Jones et al., 2012; Brehm et al., 2006). Interprofessional activities or events outside the curriculum also show promise, including a learning module for asthma health promotion (Saini et al., 2011), a workshop on chronic obstructive pulmonary disease and asthma (MacDonnell et al., 2012), an interdisciplinary case conference (Joyner et al., 2003), and a workshop to improve understanding among health professionals (Van Winkle et al., 2012). A few studies used simulation for interprofessional activities, including end-of-life care (Gilliland et al., 2012), and patient safety and teamwork skills (Fernandez et al., 2007; Vyas et al., 2012). Marken and colleagues created interdisciplinary teams consisting of pharmacy students, pharmacy residents, student nurses, and medical residents to interact with a standardized patient and a human simulator. This type of activity taught participants how to recognize and engage in difficult conversations with patients (Marken et al., 2010). Westberg and colleagues designed an interprofessional activity for pharmacy, medical, and nursing students and asked the students to assess a standardized patient as a team (Westberg et al., 2006). No other studies to date have described the assessment and management of standardized patients by nurse practitioner and pharmacy students in collaborative communication with physicians.

Standardized patients are a form of simulation often employed in healthcare profession education programs. A standardized patient is defined as a person who has been trained to simulate an actual patient, including not only history and physical findings, but also personality and body language, so that a skilled clinician cannot detect the simulation (Barrows and Abrahamson, 1964). Formative standardized patient experiences increase self-confidence, improve problem solving, enhance critical thinking abilities, and advance clinical judgment (Stayt, 2012). Various techniques can be used to increase learning with standardized patient simulations.

Time-in/time-out technique is commonly used within standardized patient simulations in which either the student or faculty can stop and restart the simulation scenario to facilitate learning (Barrows, 1993; Cantrell et al., 1997; Hill et al., 2010) Time-in/time out is also called partial facilitator prompting simulation (INASCL, 2011). During a time-out, the scenario is suspended and the group can discuss strategies for clinical problem solving and the faculty facilitator can provide coaching for interprofessional communication (Nehring and Lashley, 2012).

Debriefing after a clinical simulation is another method used to increase learning from clinical simulations. Debriefing after completing a clinical scenario is a method to encourage reflection, provide feedback to each other, and assimilate learning for future encounters (INASCL, 2011). Facilitated debriefings using an advocacy-inquiry approach increases participants' reflections on the experience, helping them discover or understand assumptions, as well as help frame their educational experience (Rudolph et al., 2006).