Journal of Pediatric Nursing 45 (2019) 20–25

Contents lists available at ScienceDirect

Journal of Pediatric Nursing

journal homepage: www.pediatricnursing.org

# Using Standardized Actors to Promote Family-centered Care☆

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ARTICLE INFO

*Article history:*
Received 24 June 2014
Revised 6 November 2018
Accepted 4 December 2018

*Keywords:*
Family-centered care simulation
Standardized actors
Family-centered care
Empathy
Pediatric nursing education

ABSTRACT

*Purpose:* The purpose of this study was to examine nursing students' performance in providing family-centered care and empathic communication in a pediatric simulation. This study was considered an innovative approach within our undergraduate program because the use of standardized actors (SAs) was new to the program and had only previously been used in our graduate program.
*Method:* This study used a mixed method design of descriptive comparative data and content analysis to examine nursing students' performance in providing family-centered care and empathic communication in a pediatric simulation.
*Results:* There were 146 students who participated in this study. Thematic analysis indicated that empathy needs to extend beyond the patient to the family. A comparison of the standardize actors' and peer assessment of student empathy was significant.
*Conclusions:* Nurse educators can use standardized actors as caregivers in simulation as an effective teaching strategy to connect theory and the philosophy of family-centered care to its application in pediatric nursing practice.
*Practice implications:* Family-centered care is a key philosophy in pediatric nursing. Students report that there is a significant gap between family-centered care theory and its application to practice. Few baccalaureate nursing students receive experience in family interactions during their clinical time. Therefore, this research supports the need for incorporating family-centered care simulation practices in nursing education to increase student nurses' readiness to practice in specialty settings such as pediatrics.



A key philosophy in pediatric nursing is family-centered care. Nurses should incorporate family members as partners in care (Bultas, 2011; Harrison, 2010). But there is limited research to show that pediatric nurses promote this philosophy in practice, and in fact, few baccalaureate nursing students receive experience in family interactions during their clinical time (Darcy Mahoney, Hancock, Iorianni-Cimbak, & Curley, 2013; Harrison, 2010; Holtslander, Solar, & Smith, 2013). Students report that there is a significant gap between family-centered care theory and its application to practice (Harrison, 2010; Holtslander et al., 2013). This lack of experience may cause nurse educators and the nursing workforce to question student readiness to practice in specialty settings such as pediatrics (Darcy Mahoney et al., 2013; Holtslander et al., 2013).

Nurse educators are faced with challenges in coordinating family-centered clinical experiences due to limited sites, lack of exposure to families during clinical experiences, lack of instructors, and competition among nursing schools for clinical placements (Butler, Veltre, & Brady, 2009; Davis, Kimble, & Gunby, 2013; Holtslander et al., 2013). Although nurse educators consider family-centered care important, they often struggle to integrate it outside of the classroom and into the nursing program.

## Literature review

One possible solution to this problem is the use of patient simulation. Over the past decade, simulation as a teaching strategy has increased in undergraduate and graduate nursing programs (Darcy Mahoney et al., 2013). In reviewing the literature, several articles described the benefit of low-fidelity and high-fidelity (Butler et al., 2009; Darcy Mahoney et al., 2013; Davis et al., 2013; Megel et al., 2012) simulation in training nursing students, but only a limited number of identified published research discussed the use of standardized patients (SPs) or actors (SAs) in undergraduate nursing education, and in pediatric nursing courses (Bultas, 2011; Gibbons et al., 2002; Jack, Gerolamo, Frederick, Szajna, & Muccitelli, 2014; Kelley, Kopac, & Rosselli, 2007; Lambton, O'Neill, & Dudum, 2008; Linder & Pulsipher, 2008; Parker, McNeill, & Howard, 2015; Robinson-Smith, Bradley, & Meakim, 2009). Fisher, Tayler, and High (2012) describe use of actors for role-playing during post clinical conferences, while two other studies are focused

☆ The authors do not have any conflicts of interest.

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https://doi.org/10.1016/j.pedn.2018.12.002
0882-5963/

on the use of SP's for mental health experiences (Jack et al., 2014; Robinson-Smith et al., 2009). While important work, these studies do not focus on the importance of family-centered care.

Many of these studies have shown that patient simulation is a valuable, innovative teaching strategy that stimulates clinical reasoning and theory application to practice and strengthens learners' skills (Bishop & Stewart, 2013; Bornais, Raiger, Krahn, & El-Masri, 2012; Butler et al., 2009; Davis et al., 2013). Simulation allows for unfolding scenarios that increase the difficulty of problem-solving, provides immediate feedback to learners in the form of debriefing, promotes self-efficacy, and decreases anxiety (Butler et al., 2009; Davis et al., 2013; Linder & Pulsipher, 2008; Megel et al., 2012). Other studies showed that students were satisfied with simulation and found it valuable to their pediatric nursing education (Darcy Mahoney et al., 2013; Parker et al., 2015). Incorporating standardized actors (SAs) provides simulated experiences that are as close to reality as possible in a safe environment for learners to practice their competencies and skills (Crow, 2012; Jack et al., 2014; Robinson-Smith et al., 2009). One study identified improvements in students' confidence, critical thinking, and satisfaction by interacting with standardized patients during a psychiatric nursing simulated experience (Robinson-Smith et al., 2009). The value of patient simulation for confidence, critical thinking, reality, safety, and problem solving can then be demonstrated within the context of pediatric family-centered care.

Additionally, debriefing, an integral part of simulation that captures learners' feedback and provides a forum for discussion by a facilitator (Fanning & Gaba, 2007), offers a timely and unique environment for discussion of learning from participants, viewers, and evaluators (Bultas, 2011; Dreifuerst, 2009; Jeffries, 2005). It allows students and faculty to actively engage in discussion about key concepts of the simulation, thereby creating opportunity to capture the essence of the educational experience.

Nurses are expected to form therapeutic relationships using empathic communication with patients and families (McCabe, 2004; Reynolds & Scott, 2000). Patients and families are considered an important source for assessment of the development of empathic communication (Kane, Gotto, Mangione, West, & Hojat, 2007). Thus, communication skills are an essential component of the nurse-patient relationship (AACN, 2008). Challenges exist in teaching nursing students non-technical skills such as empathy, therapeutic communication, and complex interpersonal interactions (Bauchat, Seropian, & Jeffries, 2016). Bauchat et al. (2016) discuss how traditional education models are not effective in sustaining empathy and therapeutic relationships in nursing students and suggest simulation modalities using a distributed educational approach. Skilled debriefers or instructors can provide immediate feedback to student learners after impactful emotional scenarios over time. Consequently, simulation with the use of standardized actors can allow for practice in forming the nurse-family relationships and demonstrate the necessary communication skills for family-centered care and empathy formation.

The purpose of this study was to examine nursing students' performance in providing family-centered care and empathic communication in a pediatric simulation. This study was considered an innovative approach within our undergraduate program because the use of standardized actors (SAs) was new to the program and had only previously been used in our graduate program. Furthermore, simulation at the undergraduate level was primarily used to master psychomotor skills as opposed to assessing the affective domain. There were three objectives of the study: to determine if simulation using SAs fostered nursing students' ability to understand and implement family-centered care; to identify if student empathic communication skills were evident by comparing the SAs perception of student empathy with the student peer assessment of student empathy; and to analyze using content analysis of the transcribed debriefing session statements for their relationship to Kolb's Theory of Experiential Learning.

### *Theoretical model*

Kolb's experiential learning theory (ELT) was the guiding theory for this study. Kolb (1984) ELT provides a model of learning styles that help educators and learners understand and explain human behavior while facilitating student learning. According to Kolb, "learning is the process whereby knowledge is created through the transformation of experience" (1984, p. 38). There are four learning style preferences that reflect a cycle of learning and can be drawn upon at any time during a student's learning. Learning styles are a product of two decisions: choosing (how to approach a task) and responding (emotionally to the experience). Kolb posits that students may choose to approach a task by "going after" the experience known as active experimentation where the learning style preference is "to do" or approach a task using reflective observation where the learning style preference is "to watch". Other students may approach a task by responding emotionally, which may transform the experience for the student by preferring "to feel" the experience or choose abstract conceptualization where the student's emotional response is "to think." When confronted with a new experience such as simulation, students make a choice internally to actively participate (to do) or to passively participate (to watch), deciding at the same time to respond emotionally by thinking or feeling.

## Methods

### *Design*

This study used a convergent parallel mixed method design to examine nursing students' performance in providing family-centered care and empathic communication in a pediatric simulation. According to Tashakkori and Creswell (2007) mixed methods is defined as "research in which the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a program of inquiry" (p. 4). In our study, quantitatively, we made inferences about the students' empathic communication based on the standardized actors' and student peers' scores from the Jefferson Scale of Patient Perception of the Health Professional's Empathy (JSPPHPE) and qualitatively, we used a directed approach to content analysis based on transcribed notes from the debriefing sessions. Data collected from the JSPPHPE scales was analyzed using SPSS (V13), a standard statistical package for descriptive frequencies and *t*-tests for comparison between SAs assessment of student empathy and peer assessment of student empathy. Transcribed notes from the debriefing sessions were analyzed using a directed approach to content analysis (Elo & Kyngas, 2007; Hsieh & Shannon, 2005). Two researchers coded the students' statements to each open-ended question from the debriefing sessions for their relevance to predetermined categories based on Kolb's ELT. The four categories were *doing*, *watching*, *feeling*, *and thinking* independently. An expert qualitative faculty member reviewed the coded statements under each category for agreement. When the expert identified a discrepancy, research coders would come to an agreement of placement for that statement. The study was approved by Thomas Jefferson University's institutional review board and was funded by the College of Nursing, which paid for the SAs training and time.

### *Participants*

The researchers provided study information to senior-level nursing students enrolled in the pediatric nursing course face-to-face before class and recruited participants via email and announcements sent to the students in the course through the school's learning platform. A convenience sample of 146 senior nursing students at a university in the mid-Atlantic region of the United States participated in this study. The sample included 89 traditional baccalaureate nursing students (BSN) and 57 nursing students enrolled in an accelerated 12-month program.

This program's curriculum is identical to the BSN program except that the students from the accelerated program have a previous bachelor's degree or higher. Descriptive data were obtained from the sample pertaining to age, sex, program, program sequence, prior degree, experience in healthcare such as working as a nurse extern or nursing assistant, and time working in healthcare. A nurse extern is defined as "a student nurse employed by an institution to provide care and develop clinical skills outside of the hours spent in school" (Extern, 2003, p. 1).

The study was conducted during an alternative clinical experience day at the end of their pediatric course in the fall semester of their senior year. After obtaining informed consent, the researchers randomly assigned the nursing students to participate in the project as either a participant in the SA encounter or as a peer observer. Participants may have experienced simulation before, but this was their first experience with SAs. Additionally, it may have been their first time serving as a peer observer. Learning objectives for the simulation stated: (1) the learners will incorporate principles of pediatric nursing during simulated pediatric scenarios to enhance empathic communication and nursing skills with children and their families, and (2) the learners will evaluate the use of therapeutic communication skills to facilitate nursing care of children and families.

### *Setting*

The setting occurred in a state-of-the-art simulation center located at Thomas Jefferson University. Four SAs were trained on site to carry out their roles as caregivers in the simulation. Simulation encounter rooms were equipped with standard healthcare equipment. Simulation viewing areas were remotely located away from the simulation rooms. Student peers were equipped with a headset and a remote visual of the simulation encounter.

### *Instrument*

A modified version of The Jefferson Scale of Patient Perception of Physician Empathy (JSPPPE) was used to assess perception of student empathy and communication. Approval for use of the instrument was granted from Thomas Jefferson University. The JSPPPE is a brief scale containing five items describing empathic engagement of the physician as perceived by patients (Kane et al., 2007). The scale was adapted for administration to students in health professions such as nursing, by a minor modification. In the JSPPPE, only the fifth item required modification: the word 'doctor' was replaced with 'health professional' - "Is an understanding doctor" to "Is an understanding health professional" (JSPPHPE). Each item is answered on a 7-point Likert scale, (1 = strongly disagree, 7 = strongly agree). The score of this scale is calculated as the sum of the item scores received by the SA, a higher score indicates a more positive view of student empathy by the SA and student peer. In our study, we found the JSPPHPE to have face validity and reliability ($a = 0.88$).

### *Scenarios*

The scenarios aimed to evaluate communication in family-centered care during routine hospitalizations. The first author and a faculty member with over two decades of pediatric experience from the Jefferson College of Nursing developed the scenarios specifically for this simulation, and three pediatric nurse experts validated their content. The scenario content reflected two common pediatric medical situations seen in many healthcare settings: asthma and fever. The asthma and fever cases were identical in design apart from patient history and age. It should be noted that the researchers chose not to include an end-of-life or critical care simulation, either of which might evoke empathic responses instinctively. Scenario #1 involved a child who has asthma and has been hospitalized frequently for exacerbations and his single mother who is frustrated and upset about the care coordination and financial burden. The mother needed instruction on a new inhaler. Scenario #2 involved an unvaccinated infant who has a high fever and her grandmother. The grandmother is the primary caregiver and is worried that the infant might have meningitis.

### *Procedure*

Student participants were randomly assigned to one of two roles: as a student participant in a simulation session with a SA or as a student peer, observing the student simulation with the SA. Each student participant was paired with a student peer. When it was time for the simulation session, student pairs were directed either to a room where the SA acted out an assigned scenario or to the student peer reviewer room. While one student was involved in the simulation, the other student, known as the student peer, observed the student's performance.

At the time of the simulation project, each student received a written report about the patient before entering the patient's room. A sign posted on the door provided each student with background information and a few questions to think about before entering the pediatric encounter. The student was given 15 min to interact with the caregiver and pediatric mannequin patient. This included time for the student to interview the SA while assessing the pediatric mannequin patient.

In both scenarios, the SAs portrayed the caregivers (the mother and the grandmother). During the simulation, the SAs asked the pediatric nursing students specific questions, including challenge questions related to empathic communication. The caregiver SA was instructed to pose the scenario specific challenge question during this interview in order to prompt a student response. Challenge questions provided an opportunity for nursing students to think critically about how to respond to the caregiver and to use verbal and nonverbal therapeutic communication techniques, while responding in an empathic manner. The scenario specific challenge questions were, "Why isn't my son getting any better? I can't keep missing work" (asthma exacerbation) and "Will he have brain damage from the fever? He's just not acting right" (fever scenario).

At the end of the simulation, after the student exited the room, the SA completed the JSPPHPE in their respective rooms. The scenarios took approximately 10 min plus an additional 5 min for the SAs and student peers to complete the assessment tool (JSPPHPE).

### *Debriefing*

During these sessions, a faculty observer watched and listened to student-SA encounters in the simulation viewing room. Immediately after the encounter, the faculty observer facilitated debriefing sessions for the student participants and the student peers. The SAs were not part of the debriefing sessions. During the sessions, the faculty observer led the discussion with three scripted questions: *What do you think this exercise was looking for*? *For what reason is this important*? and *How would you use this information in clinical*? The faculty observer also provided a take away message: *Treat every patient and family member as you would want to be treated, as if you can understand how they are feeling*. Another faculty member transcribed the student comments. We used a directed approach to content analysis to validate Kolb's ELT by coding the transcribed statements to predetermined categories based on the four learning styles: doing, watching, feeling, and thinking.

## Results

### *Sample characteristics*

There were 162 students who consented to participate in this project, however, 146 completed the demographic survey. These students represented 65% of the accelerated and senior traditional BSN programs. Results from the demographic survey revealed that the sample were mostly female (87%), from the United States (87%), between the ages

of 21–29 years old (75%), and single (70%) with no dependent children (90%). Almost half of the 146 students who listed some prior college experience or a college degree had majored in science (47%). In addition, more than half of the students reported working in a healthcare field as a certified nurse's aide or nurse extern (57%). Only 17% were interested in pediatrics as a career choice; 35% were interested in pursuing critical care settings to practice after graduation. Table 1 provides a complete analysis of demographics for this sample.

### JSPPHPE results

The researchers compared standardized actors' assessment of student empathy to the peer assessments of student empathy. The SAs' assessment of student empathy ($M = 21.7$, $SD = 6.13$) compared to the student peer assessments ($M = 23.8$, $SD = 4.87$) was significant ($p < .02$) indicating that the student peers perceived more empathic communication from the students they observed than the SAs. The SAs as caregivers may have perceived that students did not understand them or were not as attentive to their expressions of fear and concern during the scenarios (Gibbons et al., 2002; Zavertnik, Huff, & Munro, 2010). While no grade was attached to participation in the study, student peers may have connected with the students they were assessing, identifying with the scenario and how they might have reacted, and rating them with a higher score.

**Table 1**
Sample characteristics of nursing students.

| Sample characteristics | Percent (%) |
|---|---|
| Sex | |
| 1. Women ($n = 127$) | 87 |
| 2. Men ($n = 19$) | 19 |
| Ethnic | |
| 1. White ($n = 116$) | 79.5 |
| 2. Other ($n = 28$) | 10.5 |
| Age | |
| 1. 21–29 ($n = 110$) | 75.3 |
| 2. 30 or older ($n = 36$) | 24.7 |
| Academic education | |
| 1. Bachelor's degree or less (n = 116) | 79.4 |
| 2. Graduate education ($n = 30$) | 20.6 |
| Previous undergraduate academic major | |
| 1. Humanities ($n = 20$) | 13.7 |
| 2. Sciences ($n = 69$) | 47.3 |
| 3. Business (n = 12) | 8.2 |
| Academic program | |
| 1. BSN senior year ($n = 89$) | 71 |
| 2. FACT ($n = 57$) | 29 |
| Work experience in healthcare | |
| 1. Worked in clinical setting ($n = 91$) | 57.5 |
| 2. Other non-clinical setting ($n = 55$) | 42.5 |
| Hospitalized in the past | |
| 1. Yes ($n = 84$) | 57.5 |
| 2. No ($n = 62$) | 42.5 |
| Country of origin | |
| 1. United States ($n = 126$) | 87 |
| 2. Other (n = 19) | 13 |
| Dependents | |
| 1. None ($n = 120$) | 90.9 |
| 2. One or more dependents (n = 12) | 9.1 |
| Marital status | |
| 1. Single ($n = 101$) | 69.2 |
| 2. Married, separated, divorced, living w/ someone ($n = 45$) | 30.8 |
| Career specialty post-graduation | |
| 1. Critical care ($n = 52$) | 35.6 |
| 2. Maternal/child (n = 30) | 20.5 |
| 3. Pediatrics ($n = 25$) | 17.1 |
| 4. Community ($n = 13$) | 8.9 |
| 5. Medical-surgical($n = 16$) | 11 |
| 6. Gerontology (n = 3) | 2.1 |
| 7. Mental health (n = 6) | 4.1 |
| Total ($n = 146$) | |

BSN = baccalaureate nursing students; FACT = Full time Academic Coursework Track.

### Debriefing

Debriefing sessions yielded a great deal of discussion conveying statements that related well to Kolb's ELT, four styles of learning. By using a directed approach to content analysis, qualitative statements were coded using predetermined categories: doing, watching, thinking, and feeling. While these categories were not mutually exclusive, the following discussion describes these categories and descriptive data provides an explanation of our findings.

#### *Doing, "demonstrating empathy"*

The category *Doing* reflects study participant responses primarily to the question, "*What do you think this exercise was looking for*?" Demonstrating empathy was a resounding theme from students. The idea that students could relate to someone else experiencing a problem or dilemma in healthcare was evident in multiple responses. So too was the belief that the simulated experience provided students with an opportunity to see themselves from the caregiver's perspective. Making connections with others, meaning that students identified with the SAs who were concerned about their loved one was also repeatedly mentioned. One student mentioned, "It's the way we can express empathy by making the environment comfortable, meeting them at eye level, reflecting about what they are saying, and removing any physical barriers." The students reported that the simulation allowed them to 'try out' their empathic behaviors through communication and in this particular scenario, including the family as well, as indicated in this statement, "A lot depends on how you relate to the patient, if you can identify with them especially." In this way, they were actively experimenting with the use of empathy within the simulations.

#### *Watching, "explaining observations"*

The second Kolb ELT category is *Watching*. We identified from the transcribed notes taken during the debriefing sessions that explaining observations was a key theme and was predominantly associated with the question, "*What do you think this exercise was looking for*?" Having the student peers provide reflective observations in the debriefing session after watching students during simulation supported this theme. Student peers described how empathy was or was not evident and recognized ways they might improve their own empathy skills or validate their current clinical practices. As one student commented, "I realized what they (the student) could have done differently when watching someone else."

They identified with the importance of using empathy as a means for patients to adhere to the plan of care. Another student stated, "I had tunnel vision with skills and assessment and I forget patient and family are people; remember not to focus just on disease process, but on the person too." Although there was concern that some students did not display empathy, their corresponding assessment of students indicated a more empathic score on the JSPPHPE.

#### *Feeling, "helping people"*

The third Kolb ELT category is *Feeling*, which we further explained as helping people, the cornerstone of nursing practice, and for many, the reason why they wanted to become a nurse. As one student expressed, "It's an Ah ha moment, knowing I was meant to be a nurse." We extracted most data from the transcribed notes based on the responses to the question: "*How would you use this information in clinical*? Students in the senior year continue to learn ways to help others from their academic and clinical faculty. This pediatric simulation provided an opportunity to solidify if not mold those helping behaviors, conveying empathy while performing skills, thus creating concrete experiences for the students. Being aware of or checking personal emotions to allay alarm or overreaction during the simulation was a challenge for some students, while others seamlessly conveyed empathy to the patient and family while providing technical skills called upon in the scenario.

*Thinking, "understanding the situation"*

*Thinking* was the last category we explored based on Kolb's ELT and we found data supporting this theme in responses to the question, "*For what reason is this important*?" Student responses in this category emphasized visualization of the bigger picture and recognition of emotional health status as important considerations when caring for patients. Although caring for the physical aspects of patient diagnoses is important, conveying empathy can foster a bond between nurse and patient which may impact positively on how responsive patients are to their healthcare needs. Some students second guessed themselves as evidenced by the following statements, "Did I ask enough questions that showed empathy?" and "I rethought what I said because I may have sounded judgmental." While others acknowledge their own personal experiences may have played a part in how they reacted during the simulation.

## Discussion

What is known from these results is that students' ability to demonstrate empathy is in the beginning stages of development. Table 2 is a matrix of how qualitative data using content analysis from the debriefing transcriptions and quantitative data from the JSPPHPE items standardized actors' and student peers' assessment of student empathy during simulations are related. We purposefully included a selected statement that indicated students were unsure as to how to proceed in the simulation with regards to empathy or that the student peers' observations noted this apprehension as well. Our take away from this analysis was that students are aware of the importance of empathy and ways to express empathic behavior towards their patients and families. They believed that as they grew more comfortable with skill acquisition, the ability to empathize would follow, instead of identifying that this skill was equally important a skill to master. As one student commented, "It is tough, you want to show empathy, but how do you get all your work done at the same time?"

Assessments of student empathy during the scenario simulations were significantly different between the SAs and the student peers. The SAs as caregivers may have perceived that students did not understand them or were not as attentive to their expressions of fear and concern during the scenarios (Gibbons et al., 2002; Zavertnik et al., 2010). Students may not have developed empathy as a skill set or not have valued its importance. While no grade was attached to participation in the study, student peers may have connected with the students they were assessing, identifying with the scenario and how they might have reacted, by rating them with a higher score.

According to Kolb's ELT, students are predominantly in what Kolb defines as the specialization stage of development – this was certainly true for our student population who were in the early experience of pediatric nursing education. The hallmark feature of Kolb's theory is the four learning styles explained earlier. Faculty witnessed these learning styles first-hand while watching simulations and facilitating debriefing sessions. Students who served as peer observers also witnessed differences in student styles of learning while assessing simulations of their peers.

Descriptions of categories based on Kolb's ELT indicated that empathy needs to extend beyond the patient to the family. Students were given an opportunity to share openly about their reactions to the project as both participants and observers. Interestingly, the students talked easily about their personal experiences and showed great empathy towards each other during debriefing, but they were more reserved when discussing the actual SA encounter. We found it noteworthy that students thought the task (taking temperature or changing a diaper) was more important to address rather than providing empathic communication related to the health issue (asthma or fever), as if the skills could not be done simultaneously. This provided an excellent opportunity for faculty to clarify the importance of family-centered care and conveying empathy in all actions during the encounter. Faculty stressed that showing empathy should feel as natural a skill as taking a blood pressure.

Anecdotally, student feedback was positive during the debriefing sessions. They indicated that the simulation using SAs was beneficial to developing empathy and providing family-centered care. Standardized actors can fill the roles of family members more effectively than traditional low-fidelity simulation using mannequins and engage students in active learning (Robinson-Smith et al., 2009). This was supported through debriefing statements, "Awesome interaction with real people versus mannequin," "SA encounter better because speaking with someone," and "Opportunity for family-centered care focus" which indicated to the researchers that the students valued participation in our study. It

**Table 2**
Relationship among Kolb's experiential learning theory, JSPPHPE items, and SAs' and student peers' assessment of student empathy.

| Category | Theme | *Qualitative evidence | JSPPHPE item[1] | SA *M* (*SD*) | Student peer *M*(*SD*) |
|---|---|---|---|---|---|
| Doing | Demonstrating empathy | Selected statements:<br>"A connection, being able to "relate on her level"<br>"Caring for whole family, put ourselves in parent's perspective" | I1: Can view things from my perspective | 4.9 (1.7) | 5.3(1.4) |
| | | "I was focused on getting tasks done before I talked to the patient and caregiver"<br>"Build trust through knowledge and communication, spend time listening" | I4: Understands my emotions, feelings and concerns | 5.3 (1.7) | 5.5(1.1) |
| Watching | Explaining observations | "Observing other student interactions with SAs, get more validation on own interactions and learn new techniques"<br>"Students didn't seem empathetic towards the stress of the caregiver"<br>"Realized what they could have done differently when watching someone else"<br>"Patient adherence connected to empathetic student" | I3: Seems concerned about me and my family | 5.2 (1.6) | 5.8(1.3) |
| Feeling | Helping people | "Touch is important: hugs, hand holding"<br>"Understand where parent is coming from and helping them to feel at ease"<br>"Patients/caregivers want someone to talk too; get close and talk with them; sit down at eye level"<br>"If too emotionally attached to one it can affect care to the patient" | I2: Asks about what is happening in my daily life | 4.6 (1.5) | 5.8(1.3) |
| Thinking | Understanding the situation | "Emotional health has a direct effect on physical health"<br>"How things in our personal life can impact our empathy"<br>"Learn fine line between empty promises and reassurances"<br>"Think about what you say before you say it and still give caring, responses to family"<br>"Take a step back and look at the whole picture" | I5: Is an understanding health professional | 5.5 (1.6) | 5.8(1.2) |

1: p = nonsignificant for individual items on the JSPPHPE between SAs and Student Peers.
Abbreviations: I = Item number on the JSPPHPE; M, mean; SD, standard deviation.

may also be useful for the same cohort to repeat the simulation using similar scenarios since this practice could reinforce what students learned from the debriefing (Dreifuerst, 2009).

## Limitations

Cost of standardized actors is a recognizable limitation for use in simulation. Additional funding would be needed to continue using SAs in future years. However, the benefit to the students, at least in this study, outweighed the cost for the SAs. Another limitation was that participation among students was voluntary, yielding 35% of the total group choosing not to participate. Although students who opted to participate indicated that they were looking forward to simulations with a standardized actor, those students who did not participate may have missed the sign-up date for the study. The study occurred on only one alternative clinical day and the students finished the semester. Future studies may consider offering more than one day throughout the semester to determine if students learned from the SA encounters and if their learning translated to practice. Additionally, a comparison group of individuals other than SAs playing the role of caregivers could add more rigor and evidence to the beneficial use of standardized actors in simulation.

## Implications for future research

Plans to continue the study with the same cohorts using adult scenarios is scheduled to occur in the senior students' spring semester prior to graduation. Furthermore, repeating the scenarios would provide an opportunity for students who did not participate the first time. Future simulation encounters may be video-recorded, since this technology was suggested by students during several debriefing sessions. The videos would provide a valuable opportunity for learners to view themselves and their classmates to see how they handle certain situations and to revisit and analyze encounters, while providing a forum for faculty to address areas that need improvement. In the future, adding a reflective writing assignment after the session and comparing those to the content analysis may be beneficial to student knowledge of family-centered care. Future consideration will be given to include the use of instruments measuring care with good estimates of reliability and validity in nursing students and facilitating an interprofessional simulated experience with students from other health professions for future studies. Additionally, a recommendation to interview the SAs after their encounters with students and including them in the debriefing sessions may provide insight into their point of view about the experience, and why their ratings may differ from the students involved in the simulation, and the peers who watched them during the simulation. Capturing students after graduation can be a difficult task. However, longitudinal employer survey responses may yield information regarding graduate nurses' practice using family-centered care.

## Conclusion

Nurse educators can use standardized actors as caregivers in simulation as an effective teaching strategy to connect theory and the philosophy of family-centered care to its application in pediatric nursing practice. The simulated experience can benefit students by providing them with a safe environment to improve therapeutic communication and family-centered care. Also, trained actors can offer important feedback to students about their performance in providing family-centered care. Debriefing after simulation can promote students' learning through reflection on their performance and identify ways to improve their skills in therapeutic communication and family-centered care.

## Acknowledgments

We would like to thank Jefferson College of Nursing for awarding seed money to fund this study.

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