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Featured Article

Using a Procedural Puppet to Teach Pediatric Nursing Procedures

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KEYWORDS
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Abstract
Background: Although nursing programs are exploring approaches to pediatric simulation, the use of puppets is underreported. A childlike procedural puppet was trialled to teach nursing students a pediatric patient procedure.
Methods: A qualitative study was conducted to explore students' perceptions of how the procedural puppet facilitated learning a pediatric procedure.
Results: The puppet was "real but not too real" and allowed students to learn how to interact with the child like a nurse would in undertaking nursing procedures. The activity facilitated learning on recognizing physiological and behavioral changes evident in children. Balancing play, education, and obtaining vital signs "stays in your mind" and was considered good preparation for clinical practice.
Conclusion: Using a procedural puppet to teach pediatric nursing procedures had a very positive effect on engagement and learning.

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Background

Simulation as a strategy for teaching undergraduate nursing students clinical skills is evident in the literature (Bultas, 2011; Howard, Englert, Kameg, & Perozzi, 2011; Stroup, 2014). Typically, it is in the on-campus clinical laboratory setting where these simulation-based learning activities occur, be it role-playing, mannequins, or task trainers. The intent of simulation-based learning is to create a safe, realistic learning environment where newly learned skills can be readily transferred and applied to their clinical practice (Murray, Grant, Howarth, & Leigh, 2008). The closer the proximity of the simulated patient modality to real-world learning, the greater the transferability of the learned skills to the actual clinical milieu (McAllister, Reid-Searl, & Davis, 2013b).

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Most of the literature reporting findings from "realistic" or high-fidelity simulation modalities are within the adult simulated patient context. Simulating the "real patient" can occur as high fidelity, interactive mannequins (Weaver, 2011), simulated actors (de Oliveira et al., 2015; Jack, Gerolamo, Frederick, Szajna, & Muccitelli, 2014), role-playing (Wheeler & McNelis, 2014), or more recently a modality where the teacher is masked, such as Mask-Ed (Dwyer, Reid Searl, McAllister, Guerin, & Friel, 2015; McAllister et al., 2013a; Reid-Searl, Eaton, Vieth, & Happell, 2011; Reid-Searl, Happell, & Vieth, 2012). Mask-Ed is an example of high-fidelity realistic simulation, whereby an informed educator dons various silicone props, such as masks, torsos, hands, and feet to facilitate students' learning of patient care skills (Reid-Searl, Levett-Jones, Cooper, & Happell, 2014). The character has a history and a story that serves as the platform for learning and teaching. The educator, because of the props, essentially becomes hidden to the learner enabling them to guide and facilitate learning through the character (Reid-Searl et al., 2011, 2012). McAllister et al. (2013b) propose that the effectiveness of this type of simulation can be explained, in part, by Vygotsky's Zone of Proximal Development whereby student learning is facilitated by the close interaction with a skilled educator who questions and challenges the student to gain a deeper understanding. Dwyer et al. (2015) found that, when using the modality of Mask-Ed to teach advanced life support within the clinical environment, the learner became immersed in the learning, focusing on both the "patient" and the skill at hand, because the patient was realistic. Although these innovations are enhancing student learning for the adult patient population, innovations and research examining the use of realistic simulation in regards to pediatric context is limited (Broussard, Myers, & Lemoine, 2009; Darcy Mahoney, Hancock, Iorianni-Cimbak, & Curley, 2013).

Key Points

- A puppet simulation activity is an effective way to teach nursing students pediatric procedures, such as obtaining and interpreting pediatric vital signs.
- The childlike procedural puppet contributes to the limited number of pediatric simulation modalities available.
- An informed educator as the puppet wearer serves as a positive role model for students on how to communicate and interact with pediatric patients.

The lack of realistic simulation in regards to preparing undergraduate students for the pediatric context is particularly important given there may be limited opportunities for nursing students to actually practice their pediatric skills in the clinical environment before graduation. In some regions, students compete for access to pediatric clinical placements (Broussard et al., 2009). In addition, when opportunities are presented, parents and caregivers may be a barrier to students being allowed to provide care (Bultas, 2011). This is unfortunate because upon graduation, the students may be responsible for caring for pediatric patients in a variety of clinical settings, such as the intensive care unit, emergency department, and outpatient departments or in a remote or rural health care facility. Furthermore, they may accept positions in pediatric clinical areas and have limited previous exposure to the pediatric patient. Thus, the challenge exists for nurse academics to create realistic pediatric simulation experiences within the on-campus learning context.

Pediatric patients differ from adult patients in many regards, and it is important that the simulation scenarios incorporate a child's unique physical, behavioral, and developmental issues so that students can have a realistic experience. Students need to be familiar with age-related assessments and how to respond to the findings (Lambton, O'Neill, & Dudum, 2008). The ideal simulation-based learning scenario would include children; however, inviting school-age children or actors to participate in role-playing exercises in the classroom setting introduces a host of logistical and ethical issues and is therefore not a convenient option. The use of medium to high-fidelity pediatric mannequins such as child simulators is an option for teaching nursing skills and procedures; however, the realism is limited. Although vital signs, wheezing with asthma and other physical problems, can be simulated in some mannequins, the unwell child's behavior and reactions to the situation are missing. It is the child's reaction that adds to the complexity of caring for children. A puppet, on the other hand, offers an opportunity to personalize the simulated child and incorporate these responses.

Puppets, as a simulation modality, have been used to teach nursing students communication skills (Lane-Krebs, Reid-Searl, & Heidke, 2012; Reid-Searl et al., 2012) and as a means to engage with, and educate, the child when undertaking procedures in the context of a pediatric acute care setting (Reid-Searl, Quinney, Dwyer, Vieth, & Walker, 2016). In the clinical setting, the use of puppets are reported to be a positive strategy for nurses to use in terms of engaging and communicating with the child, reducing fear, and facilitating learning (Reid-Searl et al., 2016). Previous studies reported the use of cloth and hand-held puppets. What is not known is how the use of a purposively developed silicone childlike procedural puppet to teach nursing students clinical pediatric skills in the on-campus clinical laboratory setting impacts learning. Thus, the aim of this research is to explore nursing students' perceptions of how a childlike silicone procedural puppet facilitated their learning around a pediatric procedure.