Teaching Strategies for Nursing Students Using Human Patient Simulators

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Nursing education has changed significantly over the last few decades. It has come a long way from when nursing education used to be called "nursing training" and when nursing students used to live in dorms at the hospital (Waldner & Olson, 2007). I believe one of the biggest changes has been the incorporation and advancement of technology. Students have become accustomed to using technology as a tool to incorporate into their learning. In my opinion, technology in nursing is making great advancements here in New Brunswick. Therefore, it is important for nurse educators to implement forms of advanced technologies to support teaching and learning (King, Moseley, Hindenlang, & Kuritz, 2008).

One of the many teaching strategies to help nurse educators is the incorporation of simulation. Simulation is an "attempt to replicate some or nearly all of the essential aspects of a clinical situation so that the situation may be more readily understood and managed when it occurs for real in clinical practice" (Hovancsek, 2007, p. 3). Therefore, the purpose of this article is to examine a form of high fidelity technology known as Human Patient Simulators (HPS).

High fidelity HPS is defined as "a computer-controlled mannequin that mimics interaction with students in a controlled simulated clinical setting" (Parker & Myrick, 2008, p. 2). These mannequins are programmed to respond to a variety of clinical interventions, for example, O2 therapy, and medication administration. The "SimMan" mannequin is considered to be one of today's most commonly used forms of HPS. In my experience, the purpose of HPS is to provide students with a realistic, almost "human-like" patient situation in a controlled, safe environment. Using HPS, nurse educators are able to develop and utilize various case studies, thus exposing nursing students to a variety of clinical experiences (Parker & Myrick, 2008).

During simulation lab, students are given a scenario and required to perform various nursing interventions based on the scenario and the "SimMan" responses. After each simulation experience, students and their instructor spend time debriefing. In my experiences, the debriefing session is an integral element in high fidelity simulation (HFS). It is during these sessions that the majority of the learning takes place (Leigh & Hurst, 2008). The purpose of debriefing is to allow students to reflect on their performance, understand the rationale for their actions, and evaluate their experience (Rhodes & Curran, 2005). This immediate feedback allows students to reflect on their judgment and decision making skills while caring for the "patient". It also allows the students to integrate new knowledge gained from the simulation exercise (Lasater,

2007). The debriefing session allows the facilitator to review the performance of the students and evaluate their strengths and weaknesses so that appropriate changes can be made to address the needs of students (Pacsi, 2009). The facilitator is able to discuss important aspects of the patient situation he/she wants students to know and understand.

In this environment, nursing students are able to visualize the responses to their interventions, work together as a team, learn from each other, and focus on patient care (Parker & Myrick, 2008). This form of teaching strategy is a great way to improve instruction, to develop nursing skills, and to meet the learning needs of this "technology savvy" generation of nursing students. Overall, I have witnessed many values and benefits of learning in a HFS nursing lab. Student learning time is maximized, mistakes are allowed, variables are controlled, decision making can be learned, and feedback can be elicited (Lasater, 2007). HFS labs allow students to develop their nursing psychomotor and communication skills while fostering delegation, leadership, and teamwork (Pacsi, 2009). During these sessions, I have observed that students are not perfect and mistakes are made, but overall the learning experience is positive. The use of HFS nursing labs with HPS plays an integral role in developing nursing students' clinical competencies, for example, critical thinking, problem solving and clinical decision making.

In conclusion, HFS has many benefits for both nursing students and faculty. Hence, I believe that as nurse educators we need to think long and hard as to what is best for our students. Nursing education is beginning to embrace technology-based learning as a strategy to improve teaching and learning; therefore, as nurse educators in New Brunswick Nursing Programs, we need to step up to the plate and not be left behind. It is important for nurse educators to explore new teaching strategies, clinical models, and educational practices to continue to provide high quality nursing education to students in our programs (Jeffries, 2007).

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