Clinical Simulation in Nursing (2010) 6, e161-e163

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Clinical Simulation in Nursing

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Featured Article

Teaching Community Telenursing with Simulation

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KEY WORDS
nursing education;
homecare;
simulation;
technology;
telenursing;
telehealth;
community health nursing education

Abstract: Nurse educators may use homecare simulation experiences to enhance the learning of nursing students and help fill the need for community clinical practice. Simulation experience gives students a safe opportunity to expand the skills and critical thinking needed for community health nursing, in addition to increasing self-confidence. This article presents a two-part scenario that adds telenursing technology to a homecare simulation experience in order for students to become comfortable with the technology. By understanding telenursing, students may learn that telenursing is a way to provide appropriate care to a large number of clients, potentially inspiring community nursing as a career option.

Cite this article:
Benhuri, G. (2010, JULY). Teaching community telenursing with simulation. *Clinical Simulation in Nursing*, *6*(4), e161-e163. doi:10.1016/j.ecns.2009.11.011.

Introduction

The current trend in nursing education is to prepare nurses to practice in the community. Clinical placements are becoming hard to find, and safety issues require that students have some skills and comfort level prior to working with clients in home care. Schools of nursing can plan home care simulations by using a small apartment or area prepared to look like an apartment. This article presents a two-part home care simulation scenario involving telehealth technology for a community health course. Students have an opportunity to learn home care nursing and how the nurse–client relationship can continue past the home visit, to cover a large population with good management of care using telehealth technology and telenursing.

Literature

Simulation experience provides students an opportunity to think critically in a ''safe, controlled environment'' (Hawkins, Todd, & Manz, 2008, p. 524). Nurse educators have the responsibility to use techniques that increase student learning, such as role-playing (Goldenberg, Andrusyszyn, & Iwasiw, 2005). Simulation experiences may include some role-playing, such as having students role-play family members or interdisciplinary personnel to provide a realistic scenario. Simulation is a technique that students enjoy and that provides them with an opportunity to experience the psychosocial interactions of the client and family (Starkweather & Kardong-Edgren, 2008). Curtin and Dupuis (2008) stated, ''Simulation brings theory to life'' (p.522).

Home care simulation is an opportunity to increase learning. The home care experience is often confusing to nursing students because they are used to hospital situations, where rooms are similar and equipment is available (Simones, 2008). Students placed in a simulated home situation prior to going out with a home care nurse may have increased self-confidence (Simones, 2008). Self-confidence is one of the preferred outcomes of a simulation experience, according to Jeffries (2005).

Nurses' roles may change to accommodate larger populations, and learning new technology is part of the change

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doi:10.1016/j.ecns.2009.11.011

(Snooks et al., 2008). According to the National Council of State Boards of Nursing (1997), ''Telenursing is defined as the practice of nursing over distance using telecommunications technology.'' Telenursing goes beyond following clients by telephone. Nurses may communicate with clients through interactive video discussions, videoconferencing with other caregivers, and the use of digital cameras for inspection and documentation. These uses are only the beginning of the possibilities of technology to improve client care in a cost-effective way (Greenberg, 2000). With technology, nurses can effectively manage many clients at a time, yet maintain the crucial nurse—client relationship.

Key Points

- The current trend in nursing education is to prepare nurses to practice in the community.
- Telenursing can provide nurses who can appropriately care for large numbers of clients.
- Combining simulation experience with telenursing technology in nursing education seems a logical way to provide students with the required knowledge, skills, and competence to fill the need for homecare nurses.

Home care nursing education can meet the challenge of providing nurses who will be competent to practice in the field of home care and telenursing. The International Council of Nurses (2001) has predicted that employment of nurses in home care will rise substantially and that telenursing can replace almost half of those visits. Hayes et al. (2006) stated that nurse educators should encourage learning in areas where there is increasing need for nurses to practice. Lamb and Shea (2006), in addressing this need, stressed the importance of educating student nurses in telenursing to prepare them for practice in the future.

Students comfortable with technology associated with telenursing may become interested in working in the community in the area of telenursing. To this end, a complete apartment was set up at The College of New Rochelle School of Nursing for a two-part simulation scenario. The scenario covers a telenursing assessment added to a home visit and a follow-up telenursing experience incorporated into the senior community health nursing course. This simulation experience expands the basic home care assessment provided for students before they go out with visiting nurses.

Design of the Homecare Simulation

The scenario requires an apartment and a client with a *telestation* unit and telehealth monitoring equipment appropriate to the simulated client's medical needs. The telestation is a small unit with a screen that is placed in the patient's apartment and connected to a telephone line. Equipment such as a weight scale plugs into the telestation. A nurse in the central station checks that the scale works after the nurses set up the equipment and provide appropriate client and caregiver education. The results transfer wirelessly to the central station when the client stands on the scale.

For a client with congestive heart failure, a scale, blood pressure cuff, pulse oximeter, chest fluid monitor, and rhythm strip bracelets may be in the room. The client and family may be manikins with microphones operated remotely or actors, students, or faculty members. The central station is a computer on a small desk with a telephone. This station may be located in the classroom, although it should be in another office. Video recording equipment is in place in locations to record the nurse—client interaction, record the responses of the student who is role-playing the central station nurse, and broadcast the video to the classroom.

During the first part of the scenario, the class and faculty in the classroom are observing the interaction of the client and family with the nurses. The students role-playing visiting nurses enter the apartment in accordance with an interdisciplinary plan that considers the client to be a candidate for telenursing care. On this initial visit, the nurses perform a holistic health assessment, including the medical, educational, and home safety needs of the client. The client's medical records are available on the nurses' laptops. The nurses establish a therapeutic relationship with the client and family so that the relationship may continue through telenursing. Students learn the importance of therapeutic communication, which may include the family. Based on their assessment, the nurses address the client's physical, psychosocial, and educational needs. Educators can alter situations so that realistic issues arise while the students perform home safety assessments and provide care and teaching for the client.

The visiting nurses leave after they are satisfied the client is comfortable with the equipment and understands they will maintain contact with a nurse who will monitor their medical needs. Part 1 of the simulated scenario visit is complete. The faculty debrief the students and discuss the interactions of the nurses, client, and telenurse with the class.

Part 2 of the scenario is a natural extension of the basic scenario and runs on the same day. Students are told that a week has passed and the client has used the equipment after the initial visit. The client is at home with family, and the student nurse is in the central station. The technology allows the central station nurse to preset parameters such as a weight range into the telehealth system. The system recognizes numbers outside the safe range for the client and generates a short assessment survey on the home telestation screen, asking questions such as ''Are you wearing the same amount of clothing as yesterday when you weighed yourself?'' The answers create a red or green flag on the central station computer, to which the nurse responds.

The telestation offers research-based questions for risk assessment and education for disease management, in addition to survey questions, in groups of five simple

questions. The library of questions is previewed by the central station nurse or agency and planned for a specific client. Students learn how the technology generates graphs to show trends in the client's results for the central station nurse to share with the care management team.

Depending on the situation, client teaching via the telestation or a follow-up call will occur based on the information the telenurse receives wirelessly. Nursing decisions will be based on the client's monitor input, or questions. The objective is to learn the importance of good assessment and practice communication skills to maintain the therapeutic relationship from afar. Communication between the student telenurse and the home care nurse is important to highlight because home visits are required less often if communication is effective.

Various situations may occur. In one instance, the client, who is at home, uses the equipment, and the nurse in the central station receives an abnormal reading. The nurse must decide what to do. The client may need to schedule a visit with the nurse practitioner or doctor or go to a hospital. Perhaps the client needs teaching or reinforcement of the plan of care from a home visit. The student telenurse needs to recognize appropriate ways to support the client and manage client care from afar.

Current Use and Future Possibilities

During the assessment phase in the first part of the scenario, the faculty and community health nursing class follow along via wireless video feed in a classroom. This creates a venue for classroom students to interact with faculty and each other, enriching the learning experience. The students have the opportunity to see how technology can be an effective tool to enhance client care (Simpson, 2005). Peck (2005) stated that the use of technology helps nurses work with the client, family, and interdisciplinary team to provide comprehensive care. This telenursing simulation experience may eventually become an innovative teaching—learning strategy in an online course in community health nursing. Schools that cannot afford the telenursing technology may participate over the Internet, along with the classroom students.

Conclusion

With the use of home care simulation, educators can meet the challenge of preparing nursing students to practice in community health. Telenursing technology and practice added to the home care simulation provide students with the opportunity of becoming familiar with technology that is increasingly used in the community. Students become comfortable with monitoring and teaching a number of clients from a distance. Therapeutic communication via telephone or computer is a new experience for many students. Telenursing scenarios and classroom participation via video feed are an exciting way to equip nursing students with telenursing knowledge for the future.

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