

Using a Simulated Community as the Basis for a Nursing Skills Laboratory Curriculum

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Background

Educational research has shown that the use of simulated scenarios increases student engagement and results in higher confidence levels when students respond to similar situations in patient care settings. The realistic environment created with simulations mimics functioning in real situations without the stress of caring for an actual patient.

The University of Michigan School of Nursing incorporates the use of simulated scenarios throughout the undergraduate program. Using Pearson Education's "My Neighborhood" platform, students are first introduced online to the patients they will encounter during their skills laboratory experience.

This virtual introduction enables students to begin connecting emotionally to the stories of the patients they will be caring for throughout their next three years. Then in their clinical skills labs, students interact with low fidelity simulation mannequins that represent these virtual patients.

By deploying these low fidelity mannequins in conjunction with the "My Neighborhood" platform, the School of Nursing is able to simulate patient care situations in more settings than would be feasible with computer-driven, high fidelity simulators alone.

Methods

Past Methods for Teaching Clinical Skills

- Taught weekly throughout the semester
- In class videos and demos which limited practice time
- Practice occurred on mannequins with no context
- Minimal pre-learning requirements
- No problem solving needed.

New Method of Teaching Skills

- Front loading of skills at the beginning of the semester
- Pre-learning assignments required students to watch videos prior to lab
- Minimal live demonstration
- Used Pearson's "The Neighborhood" as the basis for the lab scenarios
- Lab was set up into simulation stations for the students to rotate through

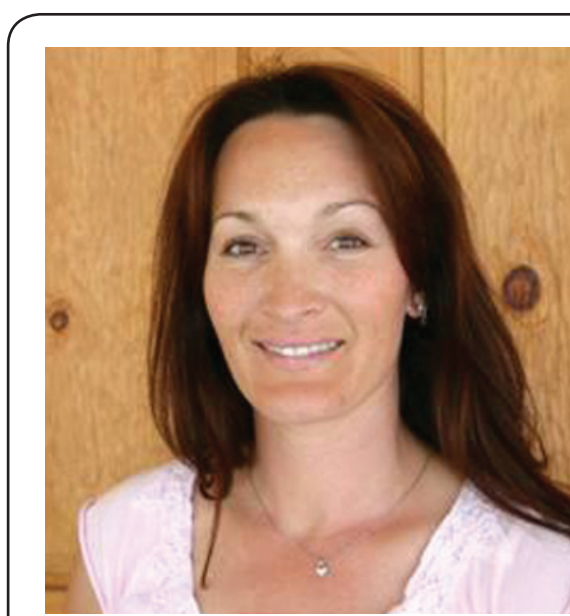
Examples

Student Clinical Assignment #1

Rachel Reyes, 38 years old, delivered twins at 32 weeks via c-section. 1 week post-op, Rachel noticed a moderate amount of purulent drainage and redness along the incisional line. The physician determined it was infected and needed to be reopened. The wound is 10cm by 5cm by 5cm and has a pale base with a moderate amount of yellow drainage and redness on the outside skin edges.

Physician orders:

1. Using sterile technique
2. Irrigate the wound with normal saline
3. Pack with normal saline soaked fine mesh gauze (FMG)
4. Cover with 4X4 and ABD
5. Secure in place



Rachel Reyes



Rachel Reyes Simulation

Student Clinical Assignment #2

You are caring for Mark Martin in his home today. He was involved in an MVA and sustained a spinal cord injury, along with a large area of abrasion on his left upper arm. His arm rubbed along the road when his car rolled over.

The abrasion is 15cm by 8cm and is superficial. The wound itself is dark red with large amounts of serosanguinous drainage. The drainage saturates the dressing after only 2 hours, so the wound care specialist has ordered an alginate dressing designed to absorb the drainage.

Physician orders:

1. Using clean technique
2. Wash the wound with soap and water
3. Apply alginate dressing
4. Cover with Vaseline gauze
5. Cover with ABD and secure in place



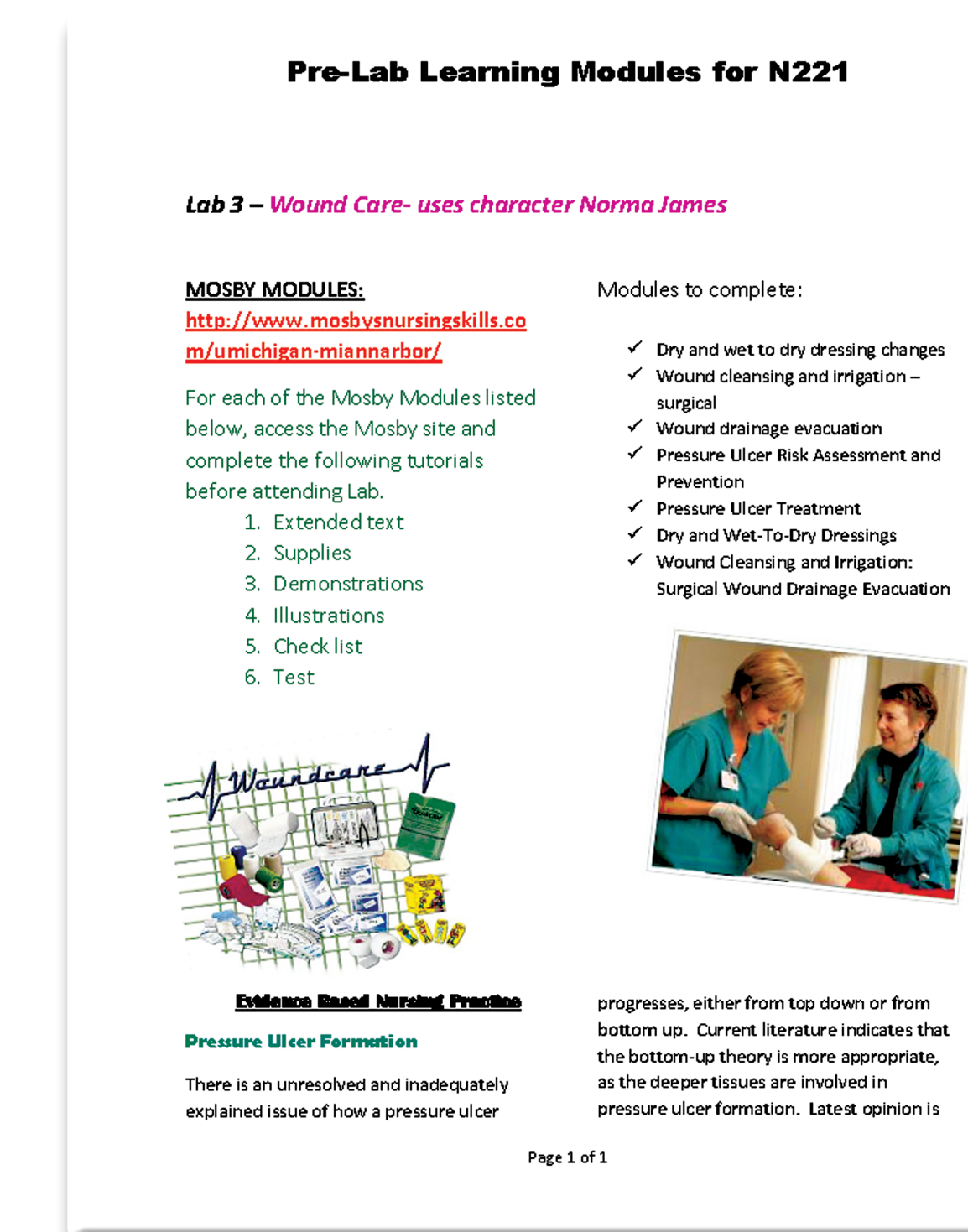
Mark Martin



Mark Martin Simulation

Examples

Students Pre-Learning Module



Students complete this prior to coming to skill lab



Norma James Simulation



Norma James

Lessons Learned

The Neighborhood, as a virtual community, provided the students with:

- A contextual learning environment.
- Patient consistency and familiarity.
- An opportunity to care for a patient holistically.
- Enhanced fidelity through simulation.
- Complexity due to the confounding factors surrounding each character.
- Critical thinking, clinical judgment, and problem solving development.
- Mimicked real life situations.
- Enhanced lab engagement.
- An emotional connection to the character patients.

The Neighborhood, as a basis for the lab curriculum:

- Encouraged the incorporation of family-centered care into their practice.
- Allowed for an immersion experience as they cared for the same patients in each lab.
- Facilitated the provision of holistic care given to the characters.
- Allowed students to build upon previously learned knowledge through the addition of complexity to each simulation.
- Provided students with an enjoyable, purposeful, and useful learning environment.

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