

# Teaching the Use of Simulation to Teach Others: A Study of Experiential Learning



# We Know there is a Need for Simulation



- Limited clinical placement
- Nurse educator shortage
- Increasing patient acuity
- Practice problem-solving skills
- Develop decision making skills
- Provide cost-effective clinical education

## We Identified a Gap in our MSN Educator Track Program, So...



- Grant from the Missouri Department of Higher Education to purchase a high-fidelity simulator
- Goal: To train graduate nursing students to teach with simulation (train the trainer)
- In addition to the reasons noted on the previous slide, we saw that:
  - Students and graduates were being asked to fill simulation lab roles
  - Many nurse educators are without specialized training in best practices of simulation
  - Prelicensure education is more reliant on simulation than ever



# Breakout Groups

What content and experiences would you include in a MSN (Nurse Educator focus) student boot camp?

# Added a Study of the Impact of the Bootcamp

- Did the bootcamp?
  - Increase knowledge and confidence in planning, running, debriefing, and evaluating simulations
  - Expose students to the complexity of the nurse educator role and best practices in high fidelity simulation
    - Could they see it too?

# Bootcamp Intentionally Focused on the three Teaching/Learning Domains

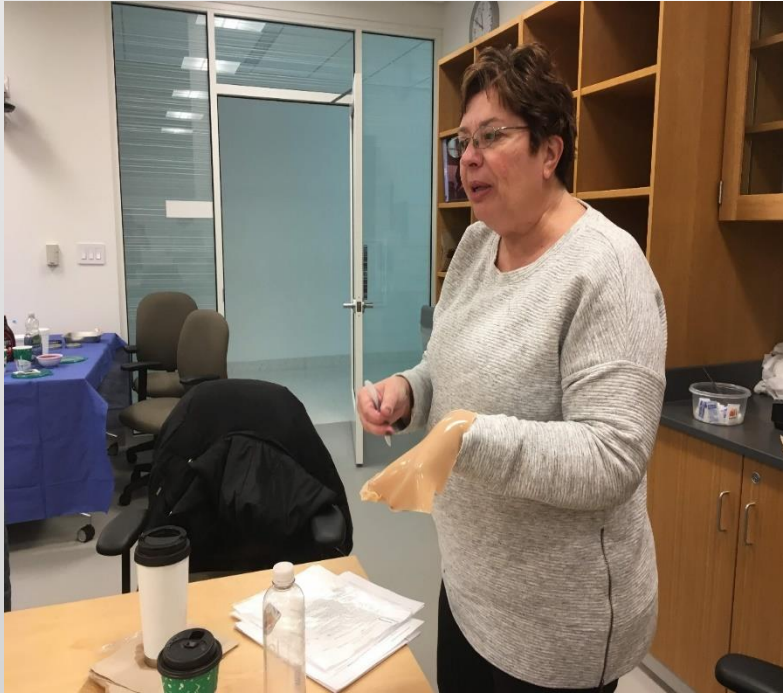


- Cognitive domain (Knowledge)
- Affective domain (Attitudes/Practice)
- Psychomotor skills (Skills)

# Grant also included FT Faculty Workshops by Laerdal



# Focused on these Skill Sets



- Develop scenarios
- Create realism
- Technology skills
- Facilitator skills
- Debriefing skills



# Pre-Boot Camp

- Classroom session- overview of simulation and boot camp
- Gap analysis
- Writing a scenario
- Thinking about and Submitting an equipment list

- Ten-month-old experiences a febrile seizure.
- Patient/visitor presents with opioid overdose
- Patient with new diagnosis of pneumonia experiences respiratory distress.
- Measurement of temperature in the hypothermic patient

# Didactic Also Included Other Types of Simulations



- Role-Playing/ Re-Enactment
- Manikin-Based Simulation
- Standardized Patients
- Virtual Simulations and Gaming



# Boot Camp

- Initial Agenda

- Debriefing Exercise
- Equipment practice
- Run Simulation
- End of Day Review/ Debrief
- Reflection

- Later Agenda

- Debriefing Exercise (COVID)
- Stations-
  - Moulage
  - Low Fidelity
  - High Fidelity/ Operation of manikin
  - Scenario Develop. (COVID)
- Wrap Up (COVID)
- Run Simulation
- End of Day Review/ Debrief
- Reflection (COVID)

# Debriefing Emphasis Areas:

- Opportunities to review and learn
- Reflect on feelings, skills, clinical judgement, decision making, communication and collaboration
- Discussion
  - What were the strengths?
  - What were the challenges?
  - What should be done differently?
- Requires twice as much time
- Formative feedback



# DeBriefing Role Play Example

- 1) Facilitate debrief of simulation
- 2) Address behaviors of participants
- Example:
  - **Role: Facilitator**
  - You are debriefing the participants following an unresponsive patient with Morphine CADD pump simulation scenario. The participants:
    - Recognized that the patient was unresponsive when walking into the room
    - Placed O<sub>2</sub> on the patient
    - Did not turn off the CADD pump
    - The participants may exhibit a variety of behaviors in response to the simulation.
- **Role: Participant 1**
- **Demonstrate this behavior during the Debriefing: Upset. Start crying. Be quiet and do not respond to any questions.**
- **Role: Participant 2**
- **Demonstrate this behavior during the Debriefing: Dominate the conversation. Try to answer all the questions. You will say to the facilitator "I was bored since I have already done this scenario"**



# Moulage Show & Tell

# Lessons Learned

- Simulation development template became more structured

NURN 5230 Practicum in the Nurse Educator Role 1

### Simulation Packet

Names: \_\_\_\_\_

Simulation Title/ Topic: \_\_\_\_\_

- I. Start with identifying a gap in knowledge, skills, or attitudes.

| Current State | Identified Gap | Gap  | Desired State | Purpose of Education |
|---------------|----------------|--|---------------|----------------------|
|               |                | <input type="checkbox"/> Knowledge<br><input type="checkbox"/> Skills Gap<br><input type="checkbox"/> Attitude Gap |               |                      |
|               |                | <input type="checkbox"/> Knowledge<br><input type="checkbox"/> Skills Gap<br><input type="checkbox"/> Attitude Gap |               |                      |
|               |                | <input type="checkbox"/> Knowledge<br><input type="checkbox"/> Skills Gap<br><input type="checkbox"/> Attitude Gap |               |                      |

**II. Sources of evidence to support gap and/ or instruction related to the gap.**

| Evidence Source or Type  | Information from Source | Gap Addressed  |
|--|-------------------------|--|
| <input type="checkbox"/> Literature Review<br><input type="checkbox"/> Quality Metrics<br><input type="checkbox"/> Other _____ |                         | <input type="checkbox"/> Knowledge<br><input type="checkbox"/> Skills Gap<br><input type="checkbox"/> Practice Gap |
| <input type="checkbox"/> Literature Review<br><input type="checkbox"/> Quality Metrics<br><input type="checkbox"/> Other _____ |                         | <input type="checkbox"/> Knowledge<br><input type="checkbox"/> Skills Gap<br><input type="checkbox"/> Practice Gap |
| <input type="checkbox"/> Literature Review<br><input type="checkbox"/> Quality Metrics<br><input type="checkbox"/> Other _____ |                         | <input type="checkbox"/> Knowledge<br><input type="checkbox"/> Skills Gap<br><input type="checkbox"/> Practice Gap |
| <input type="checkbox"/> Literature Review<br><input type="checkbox"/> Quality Metrics   |                         |  |

**III. Build the scenario (start general and become more specific later).**

Scenario Overview (in general, what is the scenario about?):

**Specific and measurable learning objectives for the scenario: "By the end of the simulation session, participants will:"**

|    | Identify is a knowledge (K), skill (S), and/or attitude (A) |
|----|---|
| 1. |   |
| 2. |   |
| 3. |   |

**Participants (For example: prelicensure nursing students, new graduate nurses, experienced ICU nurses, nurse residency participants?):**

**Anticipated duration:**

Simulation: \_\_\_minutes

Debriefing: \_\_\_ minutes (in general, the debriefing session should be twice as long as the simulation session)



## Initial Settings

### Client history

Client medical history:

Client family history:

Client surgical history:

Client social history:

### Client baseline lab values:

|     |    |     |                    |      |     |
|-----|----|-----|--------------------|------|-----|
| Na: | K: | Cl: | HCO <sub>3</sub> : | BUN: | Cr: |
|-----|----|-----|--------------------|------|-----|

SCENARIO ALGORITHM (boxes can be moved around, added, or deleted)

SITUATION

Initial VITAL SIGNS



Prepare a simulation checklist. What are the skills/ steps participants should complete during the simulation?

**Simulation Checklist**

Date: \_\_\_\_\_

Participants: \_\_\_\_\_  
\_\_\_\_\_

| Learner Actions/ Skills  | Yes | No | Comments |
|--|-----|----|----------|
| Example: Nurse identifies patient using ID band and asking his/her name and birthdate. |     |    |          |
| 1.   |     |    |          |
| 2.   |     |    |          |
| 3.   |     |    |          |
| 4.   |     |    |          |
| 5.   |     |    |          |

# Students learned to:

- 1) Use gap analysis in creating simulation scenarios and other educational activities
  - “The gap analysis is transferable to other areas.”
  - “Knowing how to use a gap analysis and outcomes will be helpful as a nurse educator and teaching.”
  - “I see the gap analysis used to identify needs in any program.”; “Performing a gap analysis will help direct my efforts.”

## 2) Facilitate learning with simulation



- “I will feel more confident in running my own simulations.”
- “I will rely on the use of simulation for acuity and occurrence events in my workplace.”
- “I can build scenarios in order to prepare new grads or nurses.”
- “I feel more confident developing simulation materials for use.”
- “I had most of my practicum experience in lecture/didactic setting so I appreciated the opportunity to practice sim as part of my educator training.”
- “Utilize simulation in work place to help new grads better communicate up the chain of command.”

### 3) Implement best-practice debriefing skills in academic and clinical practice settings

“I will utilize debriefing skills when running my own sessions.”

“I can use the debriefing tools to effectively evaluate my teaching strategies.”

“The debriefing was great. Very helpful knowledge of how to deal with difficult debriefing situations.”

“Debriefing skills can be used every day not just in simulation.”

“The debriefing steps are very important to use in the ED. I will even be able to use these after critical situations or CODSC/deaths with staff.”

# Lessons Learned

- The Environment
  - Safe
  - Embodiment
  - Curiosity
  - Playfulness
  - Risk taking
  - Vulnerability
  - Mistakes are OK
    - Power cord



## Examples:

- 1.5 Days Reduced to 1
- Food
  - Coffee, lunch
- Debriefing exercise
  - Icebreaker
  - Communication strategies
- Alum assistant
  - Share story—experience, value, job
- Moulage

## A Simulation Boot Camp for Future Nurse Educators

Janice L. Palmer, PhD, RN, CNE; Dorcas E. McLaughlin, PhD, RN; and Beth A. Hankamer, MSN, RN

With difficulties in securing clinical practice sites and recent study findings<sup>1</sup> concluding that up to 50% of clinical hours may be substituted with simulation-based education, the use of simulation teaching strategies in nursing education programs has increased exponentially. Concern exists that nursing programs are substituting clinical hours with simulation without providing adequate training in simulation best practices to faculty.<sup>2</sup> Several examples of training in the use of simulation to improve clinical outcomes are cited in the literature. Lane and Mitchell<sup>3</sup> described a 3-step train-the-trainer program for nurse educators in staff development roles. Simulation champions were identified, developed, and integrated into the role. Shellenbarger and Edwards<sup>4</sup> implemented training in simulation in a graduate nursing program. Also, the Maryland Clinical Resource Consortium initiated a 3-day train-the-trainer program to increase knowledge of simulation pedagogy and to develop faculty members as simulation champions.<sup>5</sup> Since Consortium program implementation the number of clinical hours replaced with simulation has increased. Several simulation

### Methods Design and Sample

After obtaining institutional review board approval, a convenience sample of 38 master's students consented to study participation and completed a pre-boot camp rating of confidence related to scenario development, simulator operation, simulation facilitation, and debriefing. Participants self-reported experience with simulation, including time as participants, before the boot camp: this ranged from 0 to 4 hours:  $n = 18$ ; 5 to 15 hours:  $n = 9$ ; and 16 to more than 20 hours:  $n = 7$ .

A 90- to 120-minute classroom session related to uses of simulation, best practices, and scenario development followed consent. Participants were instructed to (1) conduct an analysis of their clinical setting for gaps of knowledge in practice on which to develop a simulation scenario and (2) present the International Nursing Simulation Society (INSS) 2014



## Nurse Educator

Articles & Issues ▾

Collections

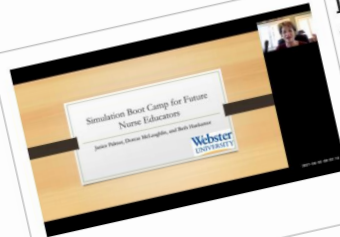
Multimedia ▾

For Authors ▾

Journal



Faculty deployed robot telepresence into scenarios to enrich the learning experience for students. Faculty developed a simulation to orient students to inpatient clinical procedures, including patient verification, medication administration, and handoff of care, prior to entering clinical practice. A sub-aim was to provide an interactive, immersive environment. Students rotated through the simulation in groups of 6 using Double-2 iPad robots to participate and debrief. You will enjoy the [video](#) and also read the [teaching tip](#).



In this [video](#) and accompanying [article](#), you will learn about a full-day simulation boot camp developed for students preparing for the nurse educator role. The authors developed a model for increasing educators' knowledge and confidence in planning, running, debriefing, and evaluating simulation sessions. Educators learned about their role and best practices in simulation.

# The Future

- Impact of COVID
- Exposure to/ keeping up with other technologies—QR, VR, etc.
- Practicum requirements for simulation?
- AACN New Essentials and Educator Role





Questions?