THE FUTURE IS AWE-SIM

A Preconference Tour at Montgomery College

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International Nursing Association for Clinical Simulation & Learning is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center’s Commission on Accreditation.
DISCLOSURES

Conflict of Interest

• Sabrina Beroz (Nurse Planner and Content Expert) reports no conflict of interest.
• Raquel Bertiz (Content Expert and Speaker) reports no conflict of interest.
• Latasha Cousar (Content Expert and Speaker) reports no conflict of interest.
• Timothy Fuss (Content Expert and Speaker) reports no conflict of interest.
• Rose Kronziah-Seme (Content Expert and Speaker) reports no conflict of interest.
• James Mitchell (Content Expert and Speaker) reports no conflict of interest.
• Patsy O’Meara (Content Expert and Speaker) reports no conflict of interest.
• Sylvia Stevens (Content Expert and Speaker) reports no conflict of interest.
• Julia Greenawalt (INACSL Conference Administrator & Nurse Planner) reports no conflict of interest.
• Leann Horsley (INACSL Lead Nurse Planner) reports no conflict of interest.

Successful Completion

• Attend 100% of session
• Complete online evaluation
LEARNING OUTCOMES

Upon completion of this educational activity, participants will be able to:

1. Discuss the use of unfolding multi-patient simulation in nursing education.
2. Discuss the importance of electronic health records to student learning.
3. Identify technologies necessary for a simulation program.
4. Tour a simulation center with hands-on activities.
5. Examine incorporating standardized patients into classroom simulation.
6. Explore formative, summative and high stakes evaluation in simulation.
UNFOLDING MULTI-PATIENT SIMULATION
THE MONTGOMERY COLLEGE NURSING PROGRAM
EXPERIENCE

Raquel Bertiz, PhD, RN, CNE

OBJECTIVES:

Discuss the use of unfolding multi-patient simulation in nursing education.

A. Bridging the gaps in learning opportunities.

B. Theoretical underpinnings of unfolding cases/scenarios when designing simulations.

C. Application of unfolding multi-patient simulation across the curriculum.
CURRICULUM REVISION AND PROGRAM OUTCOMES

• Our graduates will go into a complex practice world where they are expected to display the competencies to manage care of multiple patients with complex needs while collaborating with various health professionals
NURSING EDUCATION CHALLENGES

• Among the myriad of challenges facing nursing instructors is that of providing realistic clinical experiences to nursing students.

• Literature and feedback from partner clinical facilities indicate the struggles of new graduate nurses:
  • Safe management of multiple patients
  • Timely recognition of adverse changes in patient condition, and,
  • Delegation.
What learning experiences do we provide our students to prepare them for real world practice?

- Essential classroom concepts (theory)
- Clinical experiences
- Laboratory and simulated clinical experiences
SIMULATED CLINICAL EXPERIENCES

HOW SHOULD SIMULATIONS LOOK?

HOW DO WE INCREASE DEPTH AND COMPLEXITY?

HOW DO WE FACILITATE HIGHER ORDER THINKING SKILLS AND CLINICAL JUDGMENT?

HOW DO WE DEVELOP LEADERSHIP SKILLS AND MANAGEMENT OF PATIENT CARE?
OUR SIMULATION IDEALS

• Providing a teaching/learning package to enhance safe care of multiple patients

• Recognizing adverse changes in patient condition

• Offering an opportunity for practice of the leadership concept of delegation

• Complying with INACSL Standards of Best practice: SimulationSM.
MULTIPLE PATIENT SIMULATIONS: EVIDENCED BASED EDUCATION

- Achievement and promotes development and implementation of patient safety (Ironside & Jeffries, 2010)

- Increased students’ confidence with prioritization, delegation and teamwork (Kaplan & Ura, 2010)

- Improved ability to perform sound clinical judgment (Ironside & Jeffries, 2010)
OUR DESIGN

• Three unfolding multiple patient simulations
• Scenarios paralleled theory content.
• The progression of patient stories were designed to provide students an opportunity to care for multiple patients, recognize subtle changes in patient condition, and delegate tasks
• Student preparation for each simulation included the availability of patient information through an online documentation / charting, online virtual simulations, reading assignments, skill checklists, learning objectives, and required skills laboratory time.
• Debriefing by Meaningful Learning (DML), was implemented following each simulation session with a debriefing guide for faculty.
QUESTIONS?
REFERENCES


STUDENT FRIENDLY ELECTRONIC HEALTH RECORDS

LATASHA COUSAR, MSN, RN
OUTCOME AND OBJECTIVES

• **Outcome**
  - Discuss the importance of electronic health records to student learning.

• **Objectives:**
  - Assumptions of technology and student population
  - Discuss current practice in education
  - Bridging the gap to practice
WHAT DO YOU THINK OF WHEN YOU HEAR HEALTHCARE TECHNOLOGY?
“Electronic health records (EHR) were implemented to the medical fields to improve patient outcomes and quality of care.”

(Kelley et al., 2011)
ASSUMPTIONS OF EHR SYSTEMS

- Improve patient safety
- Increase health care quality
- Reduce health care cost

(Kowitlawakul, Chan, Pulcini, & Wang, 2015)
FACULTY ASSUMPTIONS OF STUDENTS AND TECHNOLOGY

- Students already know the technology so why teach it again?

- Decrease of communication skills.

- Patient care will suffer.

- Once students become nurses, the facility will teach them how to use EHRs.
EHR AND NURSING EDUCATION

- Why is it important to combine the two?
  - Legislative push
  - Students will encounter EHR at some point in their nursing career
  - Variation of clinical sites
  - Medical Errors
BRIDGING THE GAP, IS IT POSSIBLE?
CURRENT PRACTICE IN NURSING EDUCATION

• Integrating EHR in with simulation

• Preparing faculty

• Various nursing education EHR systems
QUESTIONS?

TURNING THE TECHNOPHOBE INTO THE TECHNOPHILE

Rose Kronziah-Seme, MSN, RN, PhDc
James Mitchell, Simulation Technician
Patsy O’Meara, MS, RN, CHSE

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TURNING THE TECHNOPHOBIE INTO THE TECHNOPHILE

“I fear the day that technology will surpass our human interaction. The world will have a generation of idiots.”

Albert Einstein
TURNING THE TECHNOPHOBIE INTO THE TECHNOPHILE

Rose Kronziah-Seme, MSN, RN, PhDc
James Mitchell
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Objective: Identify technologies necessary in a simulation program.

A. Understand the history of technology
B. Understand how to set-up technologies with troubleshooting basics
C. See examples of homegrown solutions
WHAT IS TECHNOLOGY

What do you think of when you hear the word TECHNOLOGY?
WHAT IS TECHNOLOGY

What do I think of when I hear the word TECHNOLOGY?
WHAT IS TECHNOLOGY

Definition:

1. a: the practical application of knowledge especially in a particular area: medical technology

   b: a capability given by the practical application of knowledge: a car's fuel-saving technology

2: a manner of accomplishing a task especially using technical processes, methods, or knowledge: new technologies for information storage

3: the specialized aspects of a particular field of endeavor: educational technology

Base word: “Techne” which is Greek for skill, art, or science of craft; basically practice!
COMMON SIMULATION TECHNOLOGIES

Bluetooth:
- Originally from Ericsson in 1994 but now it's an interest group controlling the patent/use
- Transfers information (audio/video/data) through short-wavelength radio waves

WiFi:
- Name was a pun on the term Hi-Fi, not wireless fidelity!
- How computers connect to each other via the internet or ad hoc

Vulnerable
SETTING UP TECHNOLOGIES

Plug in USB

Doesn’t fit, flip it

Doesn’t fit, flip it again

Now it fits

Troubleshooting 101

Step #1: Breathe!
Step #2: Close/Restart Program

Step #3: Close/Restart Computer
Troubleshooting 101

Step #4:
Check your cables/connections
Step #5: Swap out spare parts to try to narrow down the issue
Troubleshooting 101

Step #1000:
Call Tech Support. Some steps will be repeated, bear with them!
HOMEGROWN SOLUTIONS
(COMMUNITY-COLLEGE GROWN SOLUTIONS)

Example A

Original Set-up:
HOMEGROWN SOLUTIONS
(COMMUNITY-COLLEGE GROWN SOLUTIONS)

Example A
HOMEGROWN SOLUTIONS
(COMMUNITY-COLLEGE GROWN SOLUTIONS)

Example A

Upgraded/Updated Set-up:
HOMEGROWN SOLUTIONS
(COMMUNITY-COLLEGE GROWN SOLUTIONS)

Example A

Upgraded/Updated Set-up:

Cable

Cable

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HOMEGROWN SOLUTIONS
(COMMUNITY-COLLEGE GROWN SOLUTIONS)

Example A

1) The Essentials of Sim Essential
2) Locate/press (don’t hold) power button
3) Light will turn on. Allow 2 minutes to boot up like a computer.
4) Power up Laptop at stream station

5) Open Instructor Application
6) Click WiFi network to select Sim Essential network
7) Select the Sim Essential Network
8) Click Connect
9) Select the Patient Simulator to begin simulation
10) Select Manual Mode to begin

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HOMEGROWN SOLUTIONS
(COMMUNITY-COLLEGE GROWN SOLUTIONS)

Example A

AFTER SIMULATION CHECKLIST

___ POWER OFF MANIKIN (OR LINK BOX)

OR

___ SHUT DOWN PATIENT MONITOR

1

2

___ TURN OFF LAPTOP (OR SIMPAD)

1

2

OR

___ TURN OFF IV PUMP

___ RETURN PATIENT BED TO FLAT POSITION

___ TURN OFF LIGHTS
HOMEGROWN SOLUTIONS
(COMMUNITY-COLLEGE GROWN SOLUTIONS)

Example B

Original Set-up:
HOMEGROWN SOLUTIONS
(COMMUNITY-COLLEGE GROWN SOLUTIONS)

Example B

Upgraded/Updated Set-up:
Example B

Upgraded/Updated Set-up:
QUESTIONS?
REFERENCES


TOUR OF THE SIMULATION SUITE WITH FOUR LEARNING STATIONS

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Moulage examples
iPad Streaming
IV with drainage bag
Monologues
INCORPORATING STANDARD PATIENTS INTO CLASSROOM SIMULATIONS

Enhancing Student Learning Through Interactive Experience

Sylvia Stevens PhD, APRN
Tim Fuss, MSN, RN

Montgomery College Nursing
LEARNING OUTCOMES

Examine incorporating standardized patients into classroom simulation.

1. Benefits of standardized patients in the classroom.

2. Selection of appropriate clinical scenarios relevant to course content when using standardized patients in classroom simulation.

3. Preparation, training, and collaborative process among course faculty, simulation team, and standardized patients.
HISTORY

- Standardized patients first used in medicine in the 1960’s. Developed by Barrows (Goh, 2016)
- Used in medical education for quite some time, relatively new to nursing (Becker et al., 2006)
  - Frequently used in testing in medical education
  - Used initially for nursing in advanced practice programs (Becker et al, 2006)
BENEFITS OF STANDARDIZED PATIENTS

- Students may not know what to expect in a mental health setting (Alfes, 2015)
- Students have expressed anxiety over assessing mental health patients which may interfere with learning (Goh, 2016)
- Standardized patients provide opportunity for practice and improving confidence prior to interacting in clinical environment
  - Increased student satisfaction and confidence (Goh, 2016)
  - Improved self-efficacy (Alfes, 2015)
WHAT DOES THE LITERATURE REPORT?

WHAT DOES THE LITERATURE REPORT?

STANDARDIZED PATIENTS IN MENTAL HEALTH

- Simulation has been used in many nursing courses, less frequently used in MH
- Students may have perception of potential violence and unpredictability
- Standardized patients address fidelity issues of particular importance to mental health
  - Facial expressions, Body language

- Benefits-
  - Professional communication
  - Collaboration,
  - Peer evaluation
    - (Goh, 2016)
STANDARDIZED PATIENTS IN THE CLASSROOM

- Use in classroom is not prevalent in the literature
- Physical Therapy program
- Perceived by students and faculty to be strong contribution to learning (Kelly and King, 2012)
CLINICAL SITUATIONS WHERE STANDARDIZED PATIENTS MAY BE APPLIED

- Patient interactions in clinical setting usually random (Becker et al., 2006)
- Can tailor patient history and problems to curriculum objectives (Becker et al., 2006)
- Allows practice of communication skills and immediate feedback
- Useful in “interpersonal communication, history taking and interviewing, physical and psychological assessment and patient education” (Becker et al., 2006)
- Depression, while not uncommon, is often overlooked in the clinical setting
- Objective assessment of substance abuse assessment skills
- May allow for better observation of student/patient interactions (Becker et al., 2006)
“It allowed us to learn from each other, rather than being lectured about communication techniques that work or don’t work” (Becker et al., 2006, p. 108).

- Discussion described as invaluable
- Opportunity to discuss ideas and opinions with classmates based on the same patient

(Becker et al., 2006)
Scenario Specific Objectives

• Use the nursing process in providing care the client experiencing caregiver role strain and self care deficit.

• Assess factors of unresolved stressors that lead to a caregiver role strain.

• Identify developmental factors which may be incorporated in planning care for the client experiencing significant physical and emotional stress related to caregiver role strain.
INCLUDING THE SP AND SCENARIO PLAYERS IN DEBRIEFING

Players stay in role to facilitate integrity of simulation

Interactive learning during debriefing

Supporting learner(s) through constructive feedback
WHAT ARE APPROPRIATE SCENARIOS FOR USING STANDARD PATIENTS?

After viewing the clip of “Care Giver Role Strain” using standard patient:

• In small groups consider scenario topics appropriate for simulations in psychiatric mental health course.

• See handout of “Caregiver of Spouse with Vascular Dementia” scenario template.
PREPARATION, TRAINING AND COLLABORATIVE PROCESS

WHAT DO PARTICIPANTS SAY ABOUT THE EXPERIENCE?

- STUDENTS
- SP
- SIM LAB STAFF
QUESTIONS?
REFERENCES


Explore formative, summative and high stakes evaluation in simulation.

A. Implication of three levels of evaluation.

B. Use the CCEI to determine behaviors for a scenario.

C. Application of the behaviors through the lens of formative, summative and high stakes evaluation.
To promote valid and reliable results, determine the type of evaluation prior to simulation-based education.

Formative, summative or high stakes evaluation

"Your evaluation will be based on what you do in the next thirty seconds. Go!"

INACSL (2016)
FORMATIVE EVALUATION

• Based on learning objectives to
  - meet participant outcomes
  - provide feedback
  - Remedy errors in thinking and practice

• Accommodates learner needs

• Leveled for the learner

• Completed using best practice in debriefing

• Constructive feedback to improve performance in domains

INACSL (2016)
SUMMATIVE EVALUATION

Focuses on measurement of outcomes or achievement of objectives at a discrete point in time.

Key elements for summative evaluation
1. Previous testing for evidence-based content
2. Valid and reliable evaluation tools
3. Include standardized format and scoring
4. Use clear objectives/pre-established guidelines
5. Be appropriate in level of fidelity
6. Participant informed before start of experience
7. Be oriented to the environment
8. Based on pre-established guidelines
9. Conducted by trained objective observers/raters

INACSL (2016)
HIGH STAKES EVALUATION

- Avoid bias by using objective observers or raters whenever possible.
- Use detailed, standardized tools such as checklists to increase inter/intra-rater reliability.
- Key elements same as summative however, the stakes are higher.

INACSL (2016)
Four Categories
A. Assessment
B. Communication
C. Clinical Judgment
D. Patient Safety

0= Does not demonstrate competency
1= Demonstrates competency

://nursing.creighton.edu/academics/competency-evaluation-instrument

Parsons et al., (2012)
COMPARE AND CONTRAST LEVELS OF EVALUATION

EXERCISE
QUESTIONS?
REFERENCES


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