Speaker Disclosure

Dr. Janet Sprehe and Carla Brunk have no disclosures to report. There are no financial relationships with commercial interests related to the subject matter in this activity.

Objectives:

1) Identify how the preceptor’s workforce of knowledge is critical in the discovery and application of healthcare practices to prevent disease and promote well being.

Objectives:

2) Describe how simulation can enhance critical thinking and provide a safe environment to practice staff needs.

Objectives:

3) Analyze how different simulation approaches can meet multiple learning needs.

What is Simulation?

Simulation is a bridge between classroom learning and real life clinical experiences.

It provides a safe environment to learn, assess skills and cognitive processes, and improve performance.
What is simulation?

- It is the imitation or representation of one act or system by another.

Simulation Purposes:

- EDUCATION
- ASSESSMENT
- RESEARCH
- HEALTH SYSTEM INTEGRATION
- FACILITATING PATIENT SAFETY

Education Purpose

- Here is the bridge between classroom learning and real-life clinical classroom learning.
- Examples, doing injections with real needle and syringe on task trainer, mock codes on high fidelity simulators

Assessment Purpose

- "low stakes" learning for improvement
- "high stakes" learning to determine competency

Research Purpose

- Goals differ here from training and evaluation.
- Researchers try and understand why a particular event happened so a simulated event similar with same or other clinicians are used

Systems Integration Purpose

- This refers to integration of simulation into institutional healthcare training and delivery systems.
- Examples include Quality Assessment mechanisms
Systems Integration Purpose

+ Simulation can be effectively used to help evaluate organizational processes as well as team and individual performances.

HEALTHCARE SIMULATIONS

+ Simulation in healthcare is a range of activities that share a broad, similar purpose – to improve the safety, effectiveness, and efficiency of healthcare services.

Why is simulation important to use especially for preceptors?

+ To assess their preceptee’s knowledge and skills
+ Determine team dynamics
+ Evaluate one’s critical thinking processes

Benner’s Novice to Expert theory

Learner Engagement

+ What works best to engage our adult learners?
+ Have you seen a difference in how to engage the different ages?

Frameworks & Learning theories used in simulation
Educational philosophies and theories

To facilitate learning in a simulation environment, a preceptor builds experiences on sound theoretical foundations which include understanding of educational philosophies.

Jeffries Simulation Framework

Kirkpatrick's simulation theory

Learning Theories Used in Simulation

Learning theories

Learning Theories Used in Simulation

BEHAVIORISM – developed in the 1940’s

- Learning observable through behavior
- Learning is reinforced by response
- Behavior modification leads to control
- Instructional objectives guide learning
Learning Theories Used in Simulation

**CONSTRUCTIVE** - views learning as an active learning process that builds new knowledge on existing knowledge.

**Cognitive** - Acquisition of problem-solving abilities utilizing intelligence and conscious thought. Defines learning as a behavioral change based on the acquisition of information about the environment. Information processing.

**Social** - Role models. Observe: mannerisms and behaviors. Emulate or disregard mannerisms and behaviors.

**Kolb's Adult Learning Theory** - Knowledge results from combination of grasping and transforming an experience.

**Experiential Learning Theory** - the process whereby knowledge is created through the transformation of experience.

Adult Learning Theory – Knowles
- ADULTS BRING PRIOR EXPERIENCES AND BIAS TO CURRENT LEARNING EXPERIENCES
  - SELF DIRECTED LEARNERS
  - WHY DO THEY NEED TO KNOW THIS?
TEACHING STYLES

GRASHA’s Teaching Styles

Realism in Simulation

+ **Physical fidelity** - How does the mannequin appear?

+ **Psychological fidelity** - How mentally prepared are the learners?

Realism in Simulation

+ **Equipment fidelity** - What can the mannequin, task trainer, or virtual reality platform do?

+ **Environmental fidelity** – How do the surroundings appear?

Different types of equipment

+ Choosing the best equipment depends on if you want the preceptee to just perform a skill or task, simulate critical thinking or demonstrate psychomotor or affective behaviors

Different types of equipment

+ Fidelity of a simulation experience is referred to as its realism

High Fidelity

+ High Fidelity simulators create a higher realism.
Medium Fidelity

- Full body manikin that contains some but not all full immersion effects

Low fidelity - task trainers

- Focuses on 1 single skill
- & allows one to
- practice in isolation

Standardized Patients

- Human actors used to play a part in a simulation
- Role playing
- Usually pre-brief the standardized patients

Role playing

Round table Simulations

Virtual Simulations - Game approaches
**Just in time learning**

- Less formal simulations conducted in clinical settings and done immediately prior to providing actual care.
- Scenario and debriefing take less than 20 minutes

**Realistic simulated environments**

- Provide the learner a better opportunity to relate to the experience.

**Realistic simulated environments**

- 1) Physical fidelity: how the manikin appears
- 2) Psychological fidelity: how mentally prepared are the learners

**Realistic simulated environments**

- 3) Equipment fidelity – what each type does
- 4) Environmental fidelity – how the surroundings appear

**Simulation Template**

**Objectives:**
1) Identify patients at risk for suicide
2) Apply communication skills to evaluate current psychological distress
3) Employ suicide prevention tools & interventions to assist in preventing suicide

**Case Vignette**

Jamie, a 66 year old African American Vietnam War Veteran. She retired two years ago. Her spouse of 35 years, Jay, passed away six months after a lengthy battle with cancer. She recently began to experience nightmares related to her service in Vietnam and constantly feels on edge. She has recently avoided visiting the VFW. She has no prior psychiatric history and is confused about what she is experiencing.

While outside gardening she begins to think of her husband. She has thoughts of using his firearm to end her life. Frightened, she calls her friend for help. The friend contacts the police and requests a welfare check.

**Debriefing**

- Where the most learning occurs with the reflective thinking
- Perform right after simulation
- Times to debrief should = scenario time
Debriefing Model -

- Watch a video
- Reflect and makes observations
- Listen to debriefing presentation
- Debrief the monster

Monster’s Inc. video clip

- https://www.youtube.com/watch?v=4W10RVyuEU

Things the debriefer did well

1. Decisively ended the scenario when it went off course
2. Debriefed immediately after the scenario
3. Used video effectively
4. Limited focus on one major problem (leaving the door open)
5. Included others in debrief
6. Management reinforced the major learning objective
   - Unanticipated, but shows management commitment
   - Reinforces possibly catastrophic consequence of a child entering Monster world

Things the debriefer could have done better

1. Very judgmental/confrontational
2. Condescending tone of voice
3. Did not ask if he was hurt
4. Started with a negative
5. Asked vague open-ended questions
6. Kept the student standing
7. Debriefed right in the simulation lab

Important Pearls

- Always have a back up plan in case the simulation equipment is not working.
- The most important thing for the simulation to be successful is to assess the targeted population requiring the simulation
The type of equipment used will help determine the potential effectiveness for ensuring learning retention

Exercise:
- Gather into groups
- Decide a topic the preceptor finds essential to do with their preceptee
- Determine the objectives, how you will run the sim
  e.g. equipment, props, location, staff
- How do you know the outcome of your simulation?

Discussion:
- How did you feel after you created a simulation for your new preceptee?
- How did the preceptee feel in the simulation?
- Did you feel this was a good way to enhance critical thinking in a safe environment?

Questions?

Thank you!
- The presenters would like to thank you for attending our presentation!