MEETING STUDENT LEARNING OUTCOMES THROUGH SIMULATION: OBJECTIVES TO EVALUATION

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OBJECTIVES

• Describe the process from development, pre-brief, simulation to debriefing experiences toward achievement of student learning outcomes.

• Describe and create objectives to reflect learning outcomes specific to course objectives for class, lab and clinical experiences within curricular framework.

• Describe approaches to evaluate student performance in simulation experiences.
Faculty participation is encouraged and necessary.

Key Reasons for Utilization of Simulation in Nursing Education

• Simulation
  – Resembles reality
  – Creates a safe environment for students to learn and practice psychomotor, teamwork, collaborative work, and communication skills
  – Provides an opportunity to respond to a situation/problem as under natural circumstances and for competency testing
Key Reasons for Utilization of Simulation in Nursing Education

• Simulation
  – Creates an opportunity for standardization of assessment of student learning
  – Safety and quality of patient care is dependent on teamwork, communication and a collaborative work environment.
  – Is practical as the “real thing” may not be the best teaching/learning experience due to cost, safety and opportunity in the clinical setting

Useful Features of Simulation

• Provides feedback for competencies
• Repetitive practice
• Curriculum Integration
NCSBN Simulation Study Highlights

- Best practices include terminology, professional integrity of the participant, participant objectives, facilitation, facilitator, the debriefing process, and participant assessment and evaluation.

- Evidence that up to 50% simulation can be effectively substituted for traditional clinical experience in all pre-licensure core nursing courses under conditions comparable to those described in the study.

- Question: What did you find intriguing related to study results?

Current Use

Why and how is Simulation used as a teaching method here?
Faculty Involvement and Responsibility

- Development
- Facilitating simulation experience
- Debriefing
- Formative evaluation

Development of the Simulation Experience


- Based on
  - Curriculum Sequence and objectives Course Objectives, NCLEX Client Need Categories, QSEN, Nursing Process, NLN Competencies, BSN Essentials, and others

- Critical Thinking and Clinical Judgement:
  - Clinical reasoning to promote a positive outcome for a client
**Types of Simulation Experiences**

- Task-Training
- Virtual reality
- Manikin based
- Standardized patients (actors)
- Case Studies
- Multi-Disciplinary
- Hybrid

**Stages of Simulation Scenario**

- Pre-brief
- Scenario
- De-brief
- Repeat Similar Experience
- Evaluation
Planning for Simulation

• Objectives

• Student Preparation assignments

• Students engagement learning activities

• Specific Evaluation Content:
  – What is being evaluated?
  – Resource List

Facilitation of Simulation Experience

• Discussion Question:

  What are faculty responsibilities in Simulation?
Pre-Brief with Students

• Preparation
  – What do students need to know prior to the simulation?
  – How do students “know” this?

• Deliverables
  – Samples: Templates for specific medications, system disorder, diagnostic and/or therapeutic procedures, nursing skills, legal/ethical dilemmas, growth and development

Scenario Experience

• Care
  – Hand-off/over skills
  – Direct care skills
  – Organization
  – Clinical Reasoning

• Documentation
  – Accurate documentation is integral to safe patient care
  – Identify omissions of information
  – Identify errors in data (Assessments, vital signs)
  – Identify incorrect process for amendments (corrections)
  – Identify confidentiality violations
De-Brief

• Faculty Role as a facilitator
  – Faculty trained in simulation pedagogy in adequate numbers to support learners
  – Discussion of Actual Events within the Scenario
    ▪ Nursing Process
    ▪ Safety
    ▪ Team work
    ▪ Confidentiality
    ▪ Documentation
    ▪ Real World connection—next steps for improvement?—Subject Matter Experts

Expectations during Debrief

• Student awareness of review of behaviors:
  – Review of video of actual care
    ▪ What went well?
    ▪ What did not?
    ▪ How did this affect outcomes?
    ▪ What are the consequences of specific nursing actions?
Safe Setting for Debrief

- Safe setting for discussions
  - Express feelings
  - Discuss reactions to outcome
  - Confidentiality—where and with whom is this information shared?

Student Nurses Accountability/Just Culture

- Learning to recognize mistakes and learn from them
- Safe environment to develop essential nursing skills
- Increasing self-confidence
- How does Just Culture relate to Simulation in the learning environment?
  - Opportunity to feel more at ease reporting problems
  - A sense of accountability for system improvement
  - Your Thoughts?
Sample Questions during Debrief session

• What was your role during the simulation?

• Were you effective in that role? Why? Why Not?

• How would you describe your behavior during the simulation experience?

• Were you exhibiting professional behaviors?

• What emotions did you experience?

Sample Questions during Debrief session

• Did you adequately prepare for the experience...knowledge of condition, treatments, possible complications?

• What were some of your challenging decisions? What influenced those decisions?

• How can you improve?
Evaluation

• Formative Assessment to enhance student learning outcomes:
  – Faculty have important role in providing formative feedback—what does this mean?
  – Knowledge Acquisition and Retention
  – Videotaped student performance
  – Critical Thinking and Self-Confidence
  – Student Self-Evaluation

Sample Evaluation Instrument

• Creighton Competency Evaluation Instrument
  – Used by clinical instructors to rate students on behaviors that collectively demonstrate clinical competency
  – Assessment, communication, clinical judgment, and patient safety
Next Steps

• Similar Care Experience

• Evaluation for transfer of knowledge
  – What are the specific student behaviors reflecting transfer of knowledge between theory and clinical that are needed at this level within the curriculum?

Integration Throughout Curriculum

• Revisions necessary?

• Alignments for:
  – Curriculum
  – Course
  – Specific Learning Concepts/Topics
Tour of Simulation Lab

• Tour of Simulation Lab and Mock Simulation as possible

• Discuss Actual Processes Used for Simulation Experiences

• Discuss opportunities to facilitate students meeting learning outcomes

REFERENCES


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National Council of State Boards of Nursing. [www.ncsbn.org]

Program for Nursing Curriculum Integration. CAE Healthcare. [www.caehealthcare.com].
