Essentials of Simulation Scenario Design

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Objectives

Workshop participants will be able to:
1. List the criteria necessary to meet the INACSL Standards of Best Practice: SimulationSM; Simulation Design
2. Identify gaps in clinical learning opportunities based on a needs assessment
3. Create measurable objectives to drive the scenario design
4. Develop a simulation-based experience

Needs Assessment

Who or what is driving the need to conduct a needs assessment?
- Certification, accreditation agency
- Evidence based practice initiatives
- Gaps specific to institutional goals

What resources and/or methods are available?
- Organizational analysis
- Surveys
- Outcome data
- Standards

INACSL, (2016)

What gaps will the scenario address?
- Course exam scores
- Clinical performance
- Standardized testing (ATI/HESI)

Is there another simulation that may meet this need?
- What can be done with minimal revision?

Where does this simulation fit within the curriculum?
- Course/level of learner
- Week during semester
Construct Measurable Objectives

Broad objectives
- Reflect the purpose of the SBE
- Related to organizational goals

Specific objectives
- Related to participant performance measures

Bloom’s Taxonomy
General information provided to participants
Participant performance measures are not disclosed
Facilitator responsibility

(Bastable, 2014)

Format of Simulation

Based on purpose, theory and modality for SBE
Is the SBE a formative or summative encounter?

Modality
- Simulated clinical immersion
- In situ simulation
- Virtual reality
- Procedural simulation
- Hybrid simulation

Achieved with:
- Standardized patients
- Manikins
- Haptic devices
- Avatars
- Partial task trainers

(Bastable, 2014)

Designing a Scenario or Case

Ensures quality and validity of content
Supports the objectives and expected outcomes
- Learner level
- Focus area
- Cognitive
- Psychomotor
- Affective
- Safety
- Leadership and/or delegation

(INACSL, 2016)
### Fidelity

**Physical**
- How closely does the setting mimic the environment where the situation would occur in real life

**Conceptual**
- All elements relate to each other in a realistic way

**Psychological**
- Mimics contextual elements found in clinical environment
- Works synergistically with physical and conceptual to promote participant engagement

### Facilitative Approach

Participant-centered and driven by:
- Objectives
- Participant’s knowledge or level of experience
- Expected outcomes

Facilitator with formal training in simulation-based pedagogy
Consistent approach among facilitators for each SBE

### Prebriefing

Structured, planned for consistency and occurs immediately prior to the scenario
Establish a psychologically safe environment
- Trust, Integrity, Respect
- Basic Assumption
Ground rules and fiction contract
Orientation to space, equipment, roles, objectives, patient situation and limitations

(Harmon, 2016; Rudolph, Raemer & Simon, 2014)

### Debriefing

Trained facilitators
Immediately follows the SBE
Physical environment
Method based on a theoretical framework
- Debriefing with Good Judgment
- PEARLS
- Gather, Analyze & Summarize
- Debriefing for Meaningful Learning

### Evaluation

Participants, facilitators, SBE, facility and support team
Determined during the design phase
Valid and reliable tools to measure expected outcomes
Ensure participants are clear on method of evaluation before the start of the simulation
Use assessment data to evaluate simulation program for quality process improvement

### Participant Preparation

Activities address knowledge, skills, attitudes and behaviors expected during the SBE
- Course readings, article, website
- Class lecture
- Video
- Quiz
- Paperwork to complete prior to sim
- Simulation forms – confidentiality, consent to video
Promote best possible opportunity for participants to be successful

(Al-Ghareeb, Cooper & McKenna, 2017; Shearer, 2016)
Pilot Test

Pilot entire SBE to ensure intended purpose is accomplished
• Identify confusing, missing or underdeveloped elements
• Correct before actual simulation encounter

Use audience similar to target participant group
Evaluate the evaluation tools & checklists for validity

References


