Developing Effective Simulations

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Participants will learn:

- Components of simulation courses
- How to plan and prepare for simulations
- Basic debriefing & identify impact of simulation
- Allow for learning in a safe, non-threatening, controlled environment
Objectives

Participants will:

• Articulate the purpose of the prebrief & debrief

• List 3 components of simulations

• Practice hands-on effective simulations
What are Goals?

“Generalized statement of intended learning.”

“Goals should be simple, attainable, and prioritized.”
Objectives are measurable targets. These are specific “measurable” behaviors that you want the learners to achieve/demonstrate.

*Remember to be clear, concrete, and concise.*

Instructors, staff and learners should be confident that objectives are attainable and relevant to their needs.
Basic Assumptions

• We believe that everyone participating in the simulation scenario is intelligent, well-trained, cares about doing their best, and wants to improve.

• Without debriefing, mistakes that have occurred in past projects will remain in future projects.
Domains of Learning

• **Cognitive Domain** – Knowledge

• **Kinetic Domain** – Skills & actions

• **Affective Domain** – How did you feel, group dynamics, how did learners interact?
Planning the Simulation

Choose the correct modality/equipment based on learning objectives

- Lectures / videos
- Task trainers
- High-Fidelity Manikins
- Video capture & playback
Preparation

- A “pre-brief” establishes standards
- Policies and protocols
- Role expectations
- Prepare the simulation area
- Make transparent the intended learning outcomes
- Introduction to the setting and simulation equipment
- Set rules for debriefing prior to the simulation
Staffing with Instructors

Consider ....

- Instructor / learner ratio
- Instructor qualification requirements
- Strengths of the instructors
- Rooms or Breakout stations
- Small groups
- Practice or testing
Combination of Techniques

- Several techniques or types may be effective for experienced staff
- A co-inquiry approach
- Self-reflection and sensitive feedback to colleagues
Engagement of Learners

• Encourage participation of learners

• Put-downs are not permitted

• What is spoken in the group stays in the group

• One person speaks at a time without interruptions

• Speak only for yourself using “I Statements”

• Respect different backgrounds and styles of learning

• Each learner has equal voice and equal time
Case Scenario

- Goals & Objectives should drive scenario
- What triggers causes a change
- Pros & Cons of changes on-the-fly
- Plan for a pilot run prior to the event
- Obtain input & buy-in from instructors
Marketing

• Start with a plan & budget
• Don’t give away the game
• Identify target audience
• Follow guidelines for your institution
• Social Media, email, websites, links
Rules for Equipment

- Know your equipment

- Limit some skills, so that manikin is not broken – (fluids down the trachea)

- Pens & Markers often do not clean-up

- Medications – use empty syringes, label; NOT FOR PATIENT USE

- How much bend can a manikin achieve
Moulage

• Environment – match the clinical space as closely as possible (monitors, IV poles, bed)

• Equipment – Use equipment that is currently in use in the institution

• Manikin – use wigs, clothing, bed or gurney, wounds, dressings, rash

• Props – can enhance critical thinking
Introduction to the Environment

Brief introduction…

- “Hands-On” experience to environment
- Normal sounds, pulses, chest movement
- Paging, calling a code, calling supervisor
- Location of meds, supplies
- Limitations of manikins
Conducting the Simulation

• Turn on equipment – set-up vitals

• Start video capture

• Advance the scenario at learners pace

• Decide if using real time or fast forward

• Can instructors use leading questions

• Assess actions & behaviors
Bring Meaning to Simulation

• Debriefing and reflection: most critical element of a simulation

• Safe and critically constructive feedback

• Recognize any potential bias
Debriefing Role

• Overcome negative perceptions of debriefing
• Review simulation events
• Sort out and clarify thinking
• Release emotional tension
• Reinforce specific teaching points
• Correct misconceptions
• Allow adequate time for reflection
Descriptive Reflection

• Encourage learners to self-reflect

• Observe gap between desired and actual

• Allow for self discovery and self-analysis

• Acknowledge and empower learners

• It’s not about “Who is right” but rather “What is the right thing to do”
Experiential Learning

- Set personal goals
- Identify systems that limit
- Make “system changes”

- Set a timeline for follow-up
- Generalizing – How can we use this? Deliberate practice
Debriefing Techniques

**Basic**
- Safe Confidential
- Inclusive Language Avoid Blame
- Event Review
- Clarify Facts
- Recall What Happened
- Identify Impact
- Include All in Group Discussion

**Intermediate**
- Rapid-Fire Do-over
- Take-Home Messages
- Varied Perspective
- Comparisons to Real Life
- Part of Group Observes

**Advanced**
- Systems Thinking
- Video Capture of Scenario
- Digital Checklist
- Personal Goals
- Experiential Learning
- Peer Feedback
- Self-Reflection
- Oral vs. Written
- Systems Thinking

**Experiential Learning**
- Systems Thinking
- Video Capture of Scenario
- Digital Checklist
- Personal Goals
- Experiential Learning

**Digital Checklist**
- Personal Goals
- Experiential Learning

**Oral vs. Written**
- Oral vs. Written
Video Debriefing

- Exact spot can be accessed
- Digital checklists give quantitative data
- Saves time and keeps interest
- Factual document
- Annotate and timestamp video
Summary

Plan the Simulation:
- Goals & Objectives drive everything
- Plan the Pre-Brief
- Staffing with Instructors – Everyone has same page
- Create the Case Scenario
- Marketing
- Conducting the simulation
- Debriefing
- Evaluation
Evaluation and Follow-up

- Obtain feedback from learners
- Obtain feedback from assisting instructors
- Did the instructors’ questions help them to think critically?
- Do the learners feel more confident with …
- Follow-up time to revisit personal goals and systems action
Questions?


• Janelle & Associates. (CISM) “Critical Incident Stress Management for the Workplace and Community”.
http://www.cisresponse.com/courses.htm


• Enhancing Pediatric Advanced practice Nursing Education : Scenario Preparation and Implementation. NAINR.2011; 11(1) 28-34. A Elsevier Sciences, Inc.


References / Additional Readings


  http://simulation.londondeanery.ac.uk/educational-resources/safilt.
  http://www.une.edu/wchp/simulation/debriefing.cfm


  Http://www.cisresponse.com/courses.htm
Key Questions

• What happened in the simulation?

• How did you feel about that?

• How did the group’s actions compare with the standard guidelines?

• How might this be reflected in practice?

• What did you learn from this?
• Quickly move to analysis section so learners don’t dwell on feelings

• Help learners explore reasons and consequences of actions

• Timing of your assessment is critical

• Learners often forget exactly what was said

• The amount of debriefing time will vary with the case and the learners’ level of experience
Debriefing Environment

- A learning opportunity
- Provide a safe place for decompression
- A room *away from distractions*
- A place for thoughtful discussion
- Correct misconceptions
- Creation of perspectives for similar situations
Guided Reflection

- Tips & pearls
- New meaning
- Connections
- Decision making
- Trade-offs
- Discussion of problems
Digital Checklist

- Checklist or post-test
- Convert subjective data into a number or percentage
- Trend analysis
- Comparative data
The debrief is a conversation scientist

Addresses operational problems

Recommend changes to the institution

Personal goals towards maximum impact

Encourage leadership
New Concepts in Reflection

Pre-Brief material

Simulation Event

Debriefing
Developing new concepts

Increase complexity
Simulation Experiment w/ new knowledge & confidence

Debriefing
Developing new concepts

Adv. Simulation & applying knowledge to other situations