Nursing Simulation
Course Examples:
What’s In The Box?

Beth Kuzminsky
Helen Burns
Joseph S. Goode, Jr.
Session Overview

• Provide examples of simulation courses for professional nurses
• Discuss components of simulation courses for nursing programs
  • Curriculum
  • Objectives
  • Debriefing points
  • Tools and resources
What Do you Think
Should Be ‘In The Box’?
Course Description?

1. Yes
2. No
Course Objectives?

1. Yes
2. No

50% 50%
Debriefing Session?

1. Yes
2. No
Pre- and Post-Assessments?

1. Yes
2. No
Props and Equipment?

1. Yes
2. No
Access to Technical Support?

1. Yes
2. No
Associated PowerPoint Presentation(s)?

1. Yes 50%  
2. No 50%
Which of these is the most important?

1. Course Description
2. Course Objectives
3. Debriefing Session
4. Pre- and Post-Assessments
5. Objective Measurement Tools
6. Props/Equipment
7. Technical Support
8. PowerPoint Presentations
So, What really is most important?

How about OBJECTIVES?
What is an **Objective**?

Something toward which effort is directed: an aim, goal, or end of action **b**: a strategic position to be attained or a purpose to be achieved by a military operation

- Merriam Webster On-Line
Objectives:
both a guide and a tool

- How will you know if you achieved the objectives?
- Do you have measurement tools?
- Is it really necessary?
- Why do we care?
How do you begin?

some possible examples

- Patient safety problem that needs to be addressed
  - Risk management/incident reports/system issues
- Competency Needs
  - Critical for objectives to be properly defined and measureable
- Efficiency needs
  - Can a process be improved?
- Purely Educational need
  - Basic assessment or procedural skills, concept reinforcement, etc.
Do you need simulation: *if so, what kind*

- Is simulation appropriate to address the need
- If yes, what type of simulation
  - Full immersion High Fidelity
  - Part-Task
  - Standardized patients
  - On-screen computer simulation
  - ‘If an orange works, use an orange...’
Now you can define objectives based on needs

- Referenced to best practices and evidence in the literature
  - Facility specific policies
  - National patient safety goals
- Are you able to measure your objectives
- MEASURE whether objectives were met:
  - Most important: are they learning?
  - Impact of the course?
  - Ongoing course support?
    - Simulation is EXPENSIVE
- The measurement tools also can be the core of the course structure
Approaches to Measurement

• Check-listing
  • List of tasks to be performed
    • History of contribution to safety
  • Easy to read and use
  • Portable

• Task Analysis
  • Similar to check list
  • Greater degree of specificity
Approaches to Measurement

- Check-list
- List of tasks
- History of contribution to safety
- Easy to read and use
- Portable
- Task Analysis
- Similar to check list
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Room Preparation
Confirm presence and proper function of:

- OR table: correct for case, appropriate linen
- Back table
- Mayo stand
- Prep stand
- Single ring stand
- Double ring stand
- Linen and biohazard receptacles
- Kick bucket
- Suction, suction stand, suction container, tubing, and connector
- SCD machine
- OR lights
Approaches to Measurement

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Delivery of Medications to Sterile Field

- Circulating RN delivers medications and/or solutions to the sterile field according to policy
- Circulating RN states the medication name to the scrub person
- Circulating RN and scrub person verify the medication (including name, strength, dose, route, and expiration date)
- Circulating RN labels all medication containers and delivery devices by listing medication name, strength, concentration and dose
- Scrub person labels the medication and solution containers on the sterile field immediately prior to delivery of medication
- Circulating RN delivers the medication to the sterile field
- Circulating RN and scrub person verbally and visually verify medication (name, strength, dose, and expiration date)
Approaches to Measurement

- Check-list
- List of tasks to be performed
- History of contribution to safety
- Easy to use
- Portable
- Task Analysis
- Similar to check list
- Greater specificity

**Time Out Procedure**

- Initiate time out immediately prior to incision
- Ensure participation from attending surgeon, anesthesia care provider, scrub person, and circulating RN (other team members may also be required to engage)
- Promote active communication (verbal statements with all activity stopped)
- Obtain participant signatures
- Other patient verification items should be checked at this time

**REQUIRED ELEMENTS TO BE VERBALIZED**

- Correct patient
- Correct procedure with corresponding signed consent
- Correct position
- Correct side and site
- Correct implant, if applicable
- Presence of appropriately labeled, relevant images and that results are displayed
- Safety precautions taken according to patient's history or medication use
- Verify antibiotic administration per Surgical Care Improvement Project (SCIP) policy (page 27)
Approaches to Measurement

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  - List of tasks to be performed
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Example of Measurement Embedded into a Course

• SETS: Surgical Education Through Simulation
  • www.wiser.pitt.edu
Example of Measurement Embedded into a Course

- Basic Anesthetic Induction Simulation Course
Example of Measurement Embedded into a Course

- Task Analysis
  - Process of describing a job
  - Defining a task or set of tasks comprising the job
- Hierarchical Task Analysis (HTA)
  - Analyzes and attempts to order steps
  - Defining a process by its component steps:
    - makes it measurable
    - Either ‘done’ or ‘not done’
Example of Measurement Embedded into a Course

- Broke the induction process down into 10 steps
- Each step clearly defined or ‘operationalized’
- Students pre-introduced to the 10-Step Induction Protocol
- Given an assigned ‘patient’ and ‘case’
  - Instructed to develop an induction plan based on the patient history
  - Focus on matching the plan to the 10 step process
Simulation Exercise: Bag Valve Mask Ventilation
Can this be applied to a large group of learners

• Well defined, measurable objectives provide the necessary structure
• University of Pittsburgh School of Nursing:
  • Freshman Simulation Course to teach the Nursing Process
• Video clips to demonstrate
Key Points

- Start by defining the need: establish the objectives
- Decide type and level of simulation to best accomplish the goal
- Find a tool to measure the objectives
- Use these to structure the course and the debriefing
- A good structure allows simulation with groups of any size
- Analyze the Data!
  - Use this to decide on improvements
How Can I Apply This Information Tomorrow?

- Don’t assume that what you have been doing is the only way or even the right way
  - You can’t be afraid to objectively assess
- Remember that basic approaches can be scaleable
- You don’t have to start big
  - Consider check-listing
  - Again, “if an orange works, use and orange”