Teaching with Clinical Simulations (Case Scenarios)

Learning Objectives

• Learn types of clinical simulation.
• Learn how to create clinical simulation scenarios.
• Learn how to facilitate clinical simulation, including use of case scenarios.
Clinical Simulation

• Carefully planned, simulated patient assessment and management scenarios.
• Learner interacts with persons and equipment, applies knowledge and skills to evaluate and respond to a problem, and receives feedback about those responses.
• Often conducted in small groups of students.
Why clinical simulation?

• Develop critical thinking skills by managing clinical problems and receiving feedback from colleagues and instructors.
• Can be tailored to specific instructional objectives and can be easily adapted to specific needs and interests.
• Learning can take place without concern for real-life consequences.
• Helps translate book knowledge into real-life practice!
Types of clinical simulation used in ETAT

- Written simulations: pencil-and-paper presentations of actual problems or cases (pre-test questions).
- Role play simulations: learner takes on the role of an individual involved in a clinical situation (case scenarios).
- Physical simulators (anatomic models): use to develop psychomotor skills. Often used in combination with role play (skill stations, case scenarios).
- Live simulated patients: a person is trained to act the role of a patient (clinical practice).
What is a scripted scenario?

- Structured written format with defined responses for facilitator and participants.
- As an example, format of our ETAT clinical scenario scripts includes:
  - Facilitator reads words written in **BLACK**
  - Expected participant responses written in **GREEN**
A 9 month old girl is brought to clinic because she has had diarrhea (many large watery stools) for two days and she won’t drink.

**Facilitator says:** What should you do?
**Participant says:** Assess airway and breathing.
She is quiet and breathing rapidly, but without cyanosis or chest in-drawing.

**STOP**

**Facilitator says:** What should you do next?
**Participant says:** Assess circulation.
Capillary refill is <2 second.
Her radial pulse is palpable.

**STOP**

**Facilitator says:** What should you do next?
**Participant says:** Assess for consciousness.
She is quiet but interactive.

**STOP**

**Facilitator says:** What should you do next?
**Participant says:** Assess for diarrhea and/or dehydration.
She has had 5 loose stools today.
Skin pinch is 3 seconds.
How to Create a Clinical Simulation: Step 1

Define the learning objectives of the clinical simulation and the expected outcome.

- Will it be used to help students practice responding to an emergency situation?
- Will it be used to walk students through a clinical problem that will also require a demonstration of skills?
- Will it be used to assess students’ skills or knowledge?
How to Create a Clinical Simulation: Step 2

Prepare a case from your past experience that relates to the learning objectives.

- Document necessary information from the case including diagnostic data, treatment, and outcomes.
- Create a list of questions to ask students about how they would have chosen to manage the case.
How to Create a Clinical Simulation: Step 3

Create a case scenario that includes the problem, the related diagnostic results, and possible outcomes for different interventions.

• Document this information so you don’t have to recreate scenarios.
• List the questions and potential answers for possible interventions.
Defining students’ expectations

- Clarify the objectives of the activity.
- Discuss how students should perform the clinical skills.
- Give students clear instructions about their individual roles.
- Be sure to define how you will be using teaching tools (algorithms, guidelines)
- Define your role during the activity
- Discuss time constraints
Setting the scene

- Use manikins, equipment, and supplies to create a realistic scene.
- Begin the scenario by providing relatively little information.
- The student should respond to that information and ask for more essential information.
- Answer the questions and ask the student what his or her next steps might be. You may ask the student to demonstrate on the model.
- Use OPEN-ENDED questions.
  - Ex. “What would you do next?”, “Why did you make that decision?”
How does the scenario progress?

- In each scenario the facilitator presents the case in a step-by-step fashion.
- Students can work in a group or together.
- When a clinical scenario is working well:
  - The students are talking as much or more than the instructor.
  - Nobody is sitting down.
  - All of the students are participating (whether as the responder or in giving feedback afterwards).
Feedback

• At the end of the scenario:
  – Ask the group for feedback about the students’ actions and decision-making?
  – Give individual feedback highlighting what the student did well and with suggestions for improvement.
Summary

• What is clinical simulation?
• Advantages for learning.
• Creating a case scenario.
• Facilitating a case scenario.
• Assessing student performances.