

The Use of Simulation in the Clinical Education of Radiation Science Students

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Objectives

At the conclusion of this presentation, the educator will be able to:

- 1) Describe the different types of simulation used in clinical education.
- 2) List the benefits of using simulation in the education of radiation science students.
- 3) Incorporate the use of standardized patients into the clinical education of radiation science students.

Simulation is the artificial replication of real world situations in which students or other individuals work together in order to gain knowledge and psychomotor skills to be able to critically think through complex scenarios in a safe and non-threatening environment (Gaba, 2001; Medley & Horne, 2005; Hovancsek, 2007).

Purpose of simulation

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Types of Simulation

- High fidelity patient simulators
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- Standardized Patients (SPs)
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Benefits of Simulation

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Outcomes of Simulation/Review of the literature

- Interrater Reliability of Standardized Patients
- Assessing Radiology Resident Preparedness to Manage IV Contrast Media Reactions Using Simulation Technology
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The Role of Debriefing

- Facilitated & guided reflection of the simulation process
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IMPLEMENTATION OF A STANDARDIZED PATIENT PROGRAM

Administration

- Who will run the program?
- Will there be formal policies and protocols?
- Will the SPs be volunteers or employees?

Budget

- Where will funding come from?
- How much will the SPs be paid?
- Where do encounters take place?
- Are there audio and visual recording capabilities?

Recruitment and Orientation of SPs

- How will you find your SPs?
- How do you ensure diversity?
- How are SPs oriented?

Roles

- What type of roles will the SPs be playing?
- How do you choose an appropriate SP?

Incorporation

- How will SPs be worked into the curricula?

Evaluation

- How will the encounters be evaluated?

USE OF SP IN RADIATION SCIENCE

Examples in Radiation Therapy

1. Evaluation of Psychomotor skills
2. Evaluation of Cognitive skills
3. Evaluation of Critical thinking skills
4. Evaluation of Communication skills

Examples in Sonography

1. Evaluation of Psychomotor skills
2. Evaluation of Cognitive skills
3. Evaluation of Communication skills

Additional Examples

- Trauma
- Catheterization
- Enema
- IV

Conclusion & Questions

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