

Simulation Techniques

**Linda Wilson RN, PhD, CPAN,
CAPA, BC, CNE, CHSE**

Objectives

- Discuss different types of simulation techniques used today in academic and clinical settings
- Discuss the process for case development for different simulation techniques
- Discuss the different uses for simulation in the academic and clinical settings

Case Scenario Development

Purpose of Simulation

- Formative
- Summative or Competency Assessment

Case Development

- Identify focus
- Identify type of simulation to be used
- Develop case scenario
- Select evaluation criteria

Grading Criteria

- Likert rating
- Met / Not met
- Done / Not done
- Done / Not done / Done but incorrectly
- Comments
- Passing score

Human Patient Simulator (HPS) Experience

- Program software
- Prepare props and environment
- Review checklist criteria with evaluator
- Discuss plan for debriefing and type of debriefing to be used

Standardized Patient (SP) Experience

- Standardized Patient training
 - Prior to each specific case
 - Review case information
 - Practice and role play
 - Review of evaluation / grading criteria
 - One day of training for each case
 - Review of specific feedback to be provided to student or health professional

Software



Case Details

Institute Name : Drexel

Case Name : Hypertension Full BSN

Complaint Mr /Mrs Chris Brown was admitted to the medical surgical unit from the ER today. The patient has a 2 day complaint of severe headache. On arrival to the emergency room the patient was diagnosed with severe hypertension. Do a complete history, focused physical exam and appropriate patient teaching. You have 40 minutes for the encounter.

Description The patient has a 2 day complaint of severe headache. On arrival to the emergency room the patient was diagnosed with severe hypertension. The patient's initial blood pressure in the emergency department was 200/120. (BACKGROUND) The patient had been to the emergency department about 6 months ago with a similar complaint and was diagnosed with hypertension at that time. The patient was given a prescription for a hypertension medication, Lopressor. The patient was taking the medication as prescribed until he/she went to a health fair at their church. Their blood pressure at the health fair was "normal". Since the blood pressure was normal, the patient was feeling great, the patient decided to just stop taking the medication. Patient is pleasant and talkative.

Physical Findings

Author : Linda Wilson, PhD	Status: Complete
Calibrated ? Yes	Set to Standards? NO
Primary Category : Cardiac	Secondary Category:
Age Category:	Acuity:
Gender:	Weight / Min Pass: 1.00 / 77%
Creation Date : 1/23/2007	Encounter Time: 40 min
Approval Date : 1/23/2007	SP Evaluation Time: 20 min
	Post Encounter Time: 20 min

Doorway Information: Feb 5 AM HTN Door Sign.pdf

CASE - SP Training Materials: Feb 5 AM HTN Full Case.pdf

Case Detail Report:

Support File 4:

Support File 5:

Question Categories

Category	Weight	Min Pass %	Required Pass
Physical Exam	1.00	0	NO
Communication	1.00	0	NO
Patient Teaching	1.00	0	NO

Software



Case Details

Institute Name : Drexel

Case Name : Hypertension Full BSN

Generic Questions

Q.No	Category Name	Question Text	Weight
1	Communication	Introduced Self	1.00
2	Communication	Good eye contact	1.00
3	Communication	Speaks clearly in terms the patient can understand	1.00
4	Communication	Active Listener	1.00
5	Communication	Asked patient's age	1.00
6	Communication	Asked about patient's work history	1.00
7	Communication	Asked about previous hospitalizations	1.00
8	Communication	Asked about allergies	1.00
9	Communication	Asked about past medical history	1.00
10	Communication	Asked about current medications I am taking	1.00
11	Communication	Asked about my diet	1.00
12	Communication	Asked about exercise	1.00
13	Communication	Asked about a history of chest pain	1.00
14	Communication	Asked about a history of palpitations	1.00
15	Communication	Asked about smoking history	1.00
16	Communication	Asked about alcohol history	1.00
17	Communication	Asked about lifestyle stresses	1.00
18	Communication	Asked about patient's marital status	1.00
19	Communication	Create an atmosphere that puts the patient ease	1.00

Case Overview

Current Case

INSTRUCTIONS / DOOR SIGN:

Mr./Mrs. Toni Clarkson came to the Emergency room with complaints of increased thirst, increased urination, and hunger and is now admitted to the medical surgical unit. You have 35 minutes to complete a history, focused physical exam and appropriate patient teaching. Please refer to patient chart for any specific patient orders.

Audio Visual

Quality Assurance

Evaluation

- Case evaluation
 - Review student scores
 - Review of item analysis
 - SP debriefing
 - Faculty debriefing

Reports

FORM: Drexel Feb 7,8 2006	SCORE: 92.50%	RESULT: PASS
CASE: Drexel Diabetic Case	SCORE: 92.50%	RESULT: PASS
CATEGORY: Communication	SCORE: 92.50%	RESULT: PASS
Q1 : Introduced self with name and title (Y)	SCORE : 100.00%	
Q2 : Made good eye contact (Y)	SCORE : 100.00%	
Q3 : Spoke clearly in terms the patient could understand (Y)	SCORE : 100.00%	
Q4 : Listened Actively (Y)	SCORE : 100.00%	
Q5 : Asked about past medical history (Y)	SCORE : 100.00%	
Q6 : Asked about previous hospitalizations (Y)	SCORE : 100.00%	
Q7 : Asked about allergies (Y)	SCORE : 100.00%	
Q8 : Asked about diet (Y)	SCORE : 100.00%	
Q9 : Asked about activity/exercise (Y)	SCORE : 100.00%	
Q10 : Asked about current medications (Y)	SCORE : 100.00%	
Q11 : Asked about smoking history (Y)	SCORE : 100.00%	
Q12 : Asked about alcohol history (Y)	SCORE : 100.00%	
Q13 : Asked about the patient's vision (Y)	SCORE : 100.00%	
Q14 : Asked about numbness or tingling in the hands or feet (Y)	SCORE : 100.00%	
Q15 : Asked about excessive thirst (N)	SCORE : 0.00%	
Q16 : Asked about excessive urination (Y)	SCORE : 100.00%	
Q17 : Asked about having to urinate in the middle of the night (Y)	SCORE : 100.00%	
Q18 : Asked about the use of a glucometer (Y)	SCORE : 100.00%	
Q19 : Asked if patient is comfortable with giving their insuli... (Y)	SCORE : 100.00%	
Q20 : Created an atmosphere that put the patient at ease (Y)	SCORE : 100.00%	
Q21 : Washed hands before examination (Y)	SCORE : 100.00%	
Q22 : Used terms that were appropriate for you (Y)	SCORE : 100.00%	
Q23 : Explained to you what she/he was doing with each step of... (Y)	SCORE : 100.00%	
Q24 : Helped to position me (Y)	SCORE : 100.00%	
Q25 : Was professional in manner (Y)	SCORE : 100.00%	
Q26 : Maintained modesty during exam (Y)	SCORE : 100.00%	
Q27 : Measured blood pressure sitting or laying correctly (Y)	SCORE : 100.00%	

Reports

Item Survey



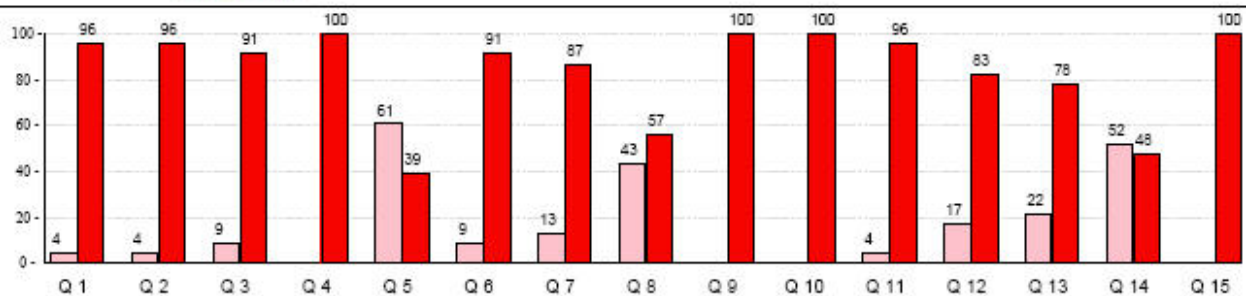
Institute Name : **Drexel**

Case Name : **Hypertension Full BSN**

Category Name : **Communication**

Date Range : **02/05/2007 to
02/05/2007**

Sample Size : **23**



Response Percentage for each Question:

N (Not Done)

Y (Done)

Q1. Introduced Self

Q3. Speaks clearly in terms the patient can understand

Q5. Asked patient's age

Q7. Asked about previous hospitalizations

Q9. Asked about past medical history

Q11. Asked about my diet

Q13. Asked about a history of chest pain

Q15. Asked about smoking history

Q2. Good eye contact

Q4. Active Listener

Q6. Asked about patient's work history

Q8. Asked about allergies

Q10. Asked about current medications I am taking

Q12. Asked about exercise

Q14. Asked about a history of palpitations

Academic Undergraduate Evaluation and Competency Assessment

Medical Surgical Fundamentals

- Simulation
 - Multiple errors on, in, around HPS
 - Students have 5 minutes to document as many errors as they can find

Medical Surgical

- Simulation
 - Human Patient Simulator experience
 - Basic assessment
 - Hybrid experience
 - Dealing with patients and families

Psychiatric

- Standardized patient experience
 - Effective communication
 - Dealing with patients with different psychiatric diagnoses

Medical Surgical

- Sim Team Experience
 - Standardized patient simulation experience
 - Comprehensive 35 minute experience with a interdisciplinary team member

Sim Team Experience

- 35 minutes
- History taking
- Physical Exam
- Patient teaching
- Psychosocial factors
- Ethical dilemmas
- Delegation
- Teamwork

OB / Pediatrics

- Skills in am
 - Postpartum assessment
 - Infant nutrition – breast & bottle feeding
 - Maternal & newborn medication station
- Simulation in pm
 - Noelle – birthing simulator
 - Prompt birthing simulator – Hybrid sim
 - SimBaby – newborn assessment

Public Health / Community Health

- Simulated home visit

End of Program

- Synthesis of Nursing Knowledge
 - Standardized patient simulation experiences
 - Mini (15 min) focused experiences including history taking, physical exam, patient teaching, and an ethical dilemma

15 Minute Mini Cases

- History taking
- Physical exam
- Patient teaching
- Ethical dilemma

End of Program

- Senior Seminar
 - Skills assessment
 - Human Patient Simulator simulation experience

End of Program

- Senior Seminar

- Standardized patient simulation experience
- Summative evaluation (40 min) of a patient encounter including history taking, focused physical exam and patient teaching

Comprehensive Case

- Comprehensive examination
 - 40 minutes
 - History taking
 - Physical Exam
 - Patient teaching
 - Psychosocial factors
 - Ethical dilemmas

Students Prior to Start

Students During Experience

Students During Feedback

Clinical Make-Up

- Replace clinical environment
 - Skills
 - Human Patient Simulator
 - Standardized Patients
- Full day and/or multiple days
- Replaces hospital or clinical site for clinical make-up

Clinical Make-Up

- Students given a passport – list of the skills, Sim, SP experiences they must complete for the make-up day
- Faculty at each station signs passport validating participation

**Academic Graduate
Evaluation and
Competency Assessment**

Advanced Health Assessment

- MSN
 - Nurse Practitioner students
 - Standardized Patient experience
 - Multiple times throughout the program

Nurse Educator

- MSN
 - Nurse Educator students
 - Dealing with difficult students
 - Standardized Patient experience
 - Multiple times throughout the program

Nurse Anesthesia

- MSN
 - Nurse Anesthesia students
 - Standardized Patient experience
 - Multiple times throughout the program
 - Human Patient Simulator experience
 - Multiple times throughout the program

Physical Therapy

- MS
 - Physical Therapy students
 - Standardized Patient experience
 - Multiple times throughout the program

Couple and Family Therapy

- MS
 - Couple and Family Therapy students
 - Standardized Patient experience
 - Multiple times throughout the program

Nutrition

- MS
 - Nutrition students
 - Standardized Patient experience
 - Multiple times throughout the program

Physician Assistants

- MS
 - Physician Assistant students
 - Standardized Patient experience
 - Multiple times throughout the program

Health Professionals Evaluation and Competency Assessment

Orientation

- Evaluation during or at end of orientation

Specialized Training

- Critical Care Course
- Dysrhythmia Course
- Trauma Course

Interprofessional

- Interprofessional Education (IPE)
 - Human Patient Simulator experiences
 - Standardized Patient experiences
- Scenarios
 - Giving bad news
 - Effective communication
 - Patient education

Annual Competencies

- Annual competency assessment
 - High risk
 - Low volume
 - Human Patient Simulator experiences
 - Standardized Patient experiences

More Specialized Training

- Code Blue
 - Human Patient Simulator experiences
- Malignant Hyperthermia
 - Human Patient Simulator experiences
- Operating Room Fire
 - Human Patient Simulator experiences

General Training

- Dealing with difficult situations
 - Standardized Patient simulation experiences
- Patient satisfaction
 - Standardized Patient simulation experiences
- Fire
 - Human Patient Simulator experience

General Training

- Harassment
 - Standardized Patient simulation experiences
- Violence
 - Standardized Patient simulation experiences
- Other

Questions?

Thank you!

Lbw25@drexel.edu