The Effects of Standardized Patients in the Classroom: A Preoperative Transgender Simulation

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Friday, December 2, 2022

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Introduction & Purpose

- High-fidelity simulation is commonly used in nursing education to practice interventions without risk of patient harm. To maintain fidelity for the complex medical-surgical patient and focused populations in a large classroom setting, standardized patients (SP) may be better suited.
- This project aimed to evaluate the impact of standardized patients in the classroom on students' knowledge, satisfaction, and self-confidence.

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Methods

- A high-fidelity simulation using a trained standardized patient, who identified as transgender, was conducted in a large classroom. Outcome measures for this study include a 6-question knowledge test and the Student Satisfaction and Self-Confidence in Learning Questionnaire.

Student Satisfaction and Self-Confidence in Learning

Instructions: This questionnaire is a series of statements about your personal attitudes about the instruction you receive during your simulation activity. Each item represents a statement about your attitude toward your satisfaction with learning and self-confidence in obtaining the instruction you need. There are no right or wrong answers. You will probably agree with some of the statements and disagree with others. Please indicate your own personal feelings about each statement below by marking the numbers that best describe your attitude or beliefs. Please be truthful and describe your attitude as it really is, not what you would like for it to be. This is anonymous with the results being compiled as a group, not individually.

Mark:
1 = STRONGLY DISAGREE with the statement
2 = DISAGREE with the statement
3 = UNDECIDED - you neither agree or disagree with the statement
4 = AGREE with the statement
5 = STRONGLY AGREE with the statement

Satisfaction with Current Learning	SD	D	UN	A	SA
1. The teaching methods used in this simulation were helpful and effective.	○ 1	○ 2	○ 3	○ 4	○ 5
2. The simulation provided me with a variety of learning materials and activities to promote my learning the medical surgical curriculum.	○ 1	○ 2	○ 3	○ 4	○ 5
3. I enjoyed how my instructor taught the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5
4. The teaching materials used in this simulation were motivating and helped me to learn.	○ 1	○ 2	○ 3	○ 4	○ 5
5. The way my instructor(s) taught the simulation was suitable to the way I learn.	○ 1	○ 2	○ 3	○ 4	○ 5
Self-confidence in Learning	**SD**	**D**	**UN**	**A**	**SA**
6. I am confident that I am mastering the content of the simulation activity that my instructors presented to me.	○ 1	○ 2	○ 3	○ 4	○ 5
7. I am confident that this simulation covered critical content necessary for the mastery of medical surgical curriculum.	○ 1	○ 2	○ 3	○ 4	○ 5
8. I am confident that I am developing the skills and obtaining the required knowledge from this simulation to perform necessary tasks in a clinical setting	○ 1	○ 2	○ 3	○ 4	○ 5
9. My instructors used helpful resources to teach the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5
10. It is my responsibility as the student to learn what I need to know from this simulation activity.	○ 1	○ 2	○ 3	○ 4	○ 5
11. I know how to get help when I do not understand the concepts covered in the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5
12. I know how to use simulation activities to learn critical aspects of these skills.	○ 1	○ 2	○ 3	○ 4	○ 5
13. It is the instructor's responsibility to tell me what I need to learn of the simulation activity content during class time..	○ 1	○ 2	○ 3	○ 4	○ 5

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Simulation

Objectives

Observers will:

1. Advocate for the appropriate communication with a client in a manner that illustrates caring, reflects cultural awareness, and addresses psychosocial needs.
2. Evaluate the competency of the nurse's preoperative assessment.
3. Appraise the competency of the nurse's teaching interventions.

ANALYTICAL CHECKLIST

Case Name:_____

Gathering Information	YES/NO
1. Elicits or states client reason for visit (i.e. surgery pre-op)	
2. Elicits or verifies allergies	
3. Elicits history of problems with surgery	

Option/Management Strategies (including patient education)	
4. Verifies consent form	
5. Reviews current medications	
6. Tells client to stop Estrogen 2 weeks before surgery	
7. Reviews current Vital Signs	
8. Reviews Lab & Diagnostic test results	
9. Tells client to use Chlorhexidine 4% in the shower at home all over the night before the surgery	
10. Tells client to not eat or drink anything after midnight the night before	
11. Teaches client postoperative leg exercises (p.167)	
12. Teaches client Incentive Spirometry (p.167)	
13. Elicits teach-back for all education	

Participants

- The demographic characteristics of study participants are shown in Table X. The majority of the participants are female (80%) and are aged 18-24 years (56.7%). Half of the participants were White (50%), followed by Hispanic or Latino (23.3%), and participants who reported being mixed-race (13.3%).

Variable	n (%)
Sex	
Female	24 (80)
Male	6 (20)
Age (years)	
18-24	17 (56.7)
25-34	11 (36.7)
45-54	2 (6.7)
Race/Ethnicity	
Asian	2 (6.7)
Black or African American	1 (3.3)
Hispanic or Latino	7 (23.3)
Mixed Race	4 (13.3)
White	15 (50)
Other/Prefer not to answer	1 (3.3)

Results

- The posttest revealed significant improvement in student knowledge after the intervention compared to the pretest.
- The results from the pre-test (M = 2.5, SD = .68) and post-test (M = 3.7, SD = 1.14) knowledge test indicate that the standardized patient activity resulted in an improvement in knowledge, t(58) = -5.076, p = .000). The average mean score for the pre-test was 1.2 points lower than the mean score for post-test.

	Mean	Std Dev	S.E. mean	*t* test		
				t value	*df*	*p-value*
Knowledge						
Pre-test	2.50	.68	.12	-5.076	58	.000
Post-test	3.73	1.14	.208			

Participants

- Of the 30 student participants, 25 (83.3%) reported “agree” or “strongly agree” when asked about their satisfaction with teaching methods, diversity of learning materials, facilitation, motivation, and overall suitability of simulation. 26 (86.7%) reported “agree” or “strongly agree” when asked about their self-confidence in content mastery, content necessity, skills development, available resources, and knowledge of how to obtain help to solve clinical problems in simulation.

		Mean (SD)	Cronbach's α
Satisfaction with Current Learning (items = 5)			0.95
1.	The teaching methods used in this simulation were helpful and effective.	4.24 (.91)	
1.	The simulation provided me with a variety of learning materials and activities to promote my learning the medical surgical curriculum.	4.10 (1.11)	
1.	I enjoyed how my instructor taught the simulation.	4.38 (.90)	
1.	The teaching materials used in this simulation were motivating and helped me to learn.	4.24 (.99)	
Self-confidence in Learning (items = 8)			0.93
1.	It is my responsibility as the student to learn what I need to know from this simulation activity.	4.10 (1.01)	
1.	I know how to get help when I do not understand the concepts covered in the simulation.	4.31 (.96)	
1.	I know how to use simulation activities to learn critical aspects of these skills.	4.03 (1.01)	
1.	It is the instructor's responsibility to tell me what I need to learn of the simulation activity content during class time.	4.14 (.99)	
1.	I am confident that I am mastering the content of the simulation activity that my instructors presented to me.	4.03 (1.18)	
1.	I am confident that this simulation covered critical content necessary for the mastery of medical surgical curriculum.	4.24 (1.02)	
1.	I am confident that I am developing the skills and obtaining the required knowledge from this simulation to perform necessary tasks in a clinical setting.	4.24 (.95)	
1.	My instructors used helpful resources to teach the simulation.	4.31 (1.03)	

Limitations

- Limited SP pool (the requirement for a person who was transgender to play in the role of the incognito patient participant)
- Cost of standardized patients
- Self-reported data

Conclusions

- High-fidelity simulation with a standardized patient in a large classroom can increase student knowledge and improve satisfaction and self-confidence. Further research using this innovative strategy in a large classroom is recommended to assess outcomes.

Questions?