

Students' Satisfaction and Self-Confidence with Simulation Training about Nursing Management Skills

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Abstract

Background: Introduction of interactive education such as simulation training in classroom and clinical setting, nursing students' satisfaction and confidence in their management knowledge and skills can be strengthened.

The aim: the study aimed to assess students' satisfaction and self-confidence with simulation training about nursing management skills.

Materials and Methods: A cross-sectional descriptive study was conducted in faculty of nursing Zagazig University. A Student Satisfaction and self-Confidence in Learning Scale (SSSC), the sample consisted of 35 nursing students.

Results: the highest percentage of nursing students agree on all items of satisfaction in learning with simulation training. As regard self-confidence, all participants agreed on the instructor used helpful resources to teach the simulation. There is a need for conducting training program for assistant teaching staff about the use of simulation in teaching clinical part of nursing administration course.

Keywords: Nursing, management, Satisfaction, self-Confidence, Simulation training

Introduction:

Simulation training is a technique for teaching and learning that was first used in a laboratory environment with small groups of learners [2]. Laboratory-based clinical simulation offers opportunities to combine theory and practice. Simulation training is also an instructional tool used to amplify or replace clinical experiences with directed experiences that mimic reality [12].

Simulations are characterized by a continuum based on the degree to which they address reality from low fidelity to high fidelity end. Experiences such as using case studies or role-play are on the low-fidelity end. While in the middle of the continuum are partial task trainers or computer-based simulators. Finally, there are high fidelity patient simulators at the other end of the continuum that are extremely realistic [7].

The satisfaction of nursing students is a happy or positive feeling because of something that nursing students have done or something has happened to them. Simulation is also used to help students and new learners to bridge theory and practice that offers constructive, experiential learning and facilitates the application of classroom content to patient care scenarios that increase the satisfaction of students and help them to become more confident [6,8].

While, self-confidence is the willingness of nursing students to complete the task or skill, choose the correct and successful way to solve the problem and make a decision. Importantly, with the introduction of interactive teaching like simulation training into both the classroom and clinical settings, nursing students' confidence in their knowledge and skills can be strengthened [3]. The use of simulation helps nursing students to develop management skills includes leadership skills, and interpersonal communication so that this study attempts to assess nursing students satisfaction and self-confidence with simulation training about nursing management skills.

The main aim of our research was to assess students' satisfaction and self-confidence with simulation training about nursing management skills.

Materials and Methods:

A cross-sectional study was conducted in a period of three months from mid-September 2019 until mid-December 2019 in faculty of nursing, Zagazig University, Egypt. Participants were selected using simple random sampling method. The participants were fourth year nursing students who enrolled in the nursing administration course and agreed to participate in the study, the sample size was 35 nursing students. Informed consent was obtained for participation. The procedures followed were in accordance with the ethical standards

in faculty of nursing, Zagazig University.

Student Satisfaction and self-Confidence in Learning Scale (SSSC) was developed by the National League for Nursing[10], then distributed to students. It consists of three parts, part A, part B and part C. Part A was designed to investigate personal characteristics data such as gender, age, and marital status, while part B was designed to assess students satisfaction with simulation training, and part C was designed to assess how confident students felt about applying nursing management skills by simulation.

There were 13 items in SSSC that the participants had to answer; the responses of the items measured by using 3–point Likert scale as follows: Disagree (1), undecided (2), and agree. The reliability of SSSC previously tested by original author using Cronbach's alpha: satisfaction = 0.94; self-confidence = 0.87. Ethical approval for the study was obtained from Ethics Research Committee at the Faculty of Nursing; Zagazig University.

Statistical analysis of the data was performed using the Statistical Package Social Science SPSS version 20 software. Quantitative data were expressed as the mean \pm SD & range, and qualitative data were expressed as absolute frequencies (number) & relative frequencies (percentage). P-value < 0.05 was considered statistically significant (S), P-value < 0.001 was considered highly statistically significant (HS), and p-value \geq 0.05 was considered statistically insignificant (NS).

Results:

Table 1 depicts that the highest percentages of participants agreed on all items of satisfaction in learning with simulation training ranked from the way the instructor taught the simulation was suitable to the way they learn (97.14 %) to the fifth item related to teaching methods used in the simulation were motivating and helped them to learn (88.57%).

Table 1: Personal characteristics of nursing students (n=35)

Personal characteristics	No	%
Age in years		
>21	24	68.6
\leq 21	11	31.4
Mean \pm SD	21.3 \pm 0.52	
Gender:		
Male	9	25.7
Female	26	74.3
Marital status:		
Single	32	91.4
Married	3	8.6

As regard self-confidence, all participants agreed on the instructor used helpful resources to teach the simulation. While the majority of nursing students agreed on items related to they were developing the skills and obtaining the required knowledge from the simulation to perform necessary tasks in a clinical setting, and they know how to get help when I do not understand the concepts covered in the simulation as mentioned in table 2.

Table 2: Distribution of nursing students' satisfaction and self-confidence in learning with simulation training

Items	Agree NO (%)	Undecided NO (%)	Disagree NO (%)
Satisfaction scale:			
The teaching methods used in this simulation were helpful and effective	33 (94.29)	2 (5.71)	0 (0.0)
The simulation provides me with a variety of learning materials and activities to promote their learning in nursing administration curriculum.	33 (94.29)	2 (5.71)	0 (0.0)
I enjoyed how my instructor taught the simulation	32 (91.43)	3 (8.57)	0 (0.0)
The teaching methods used in this simulation were motivating and helped me to learn	31 (88.57)	4 (11.43)	0 (0.0)

The way my instructor taught the simulation was suitable to the way I learn	34 (97.14)	1 (2.86)	0 (0.0)
Self-confidence scale:			
I am confident that I am mastering the content of the simulation activity that my instructor presented to me.	29 (82.86)	6 (17.14)	0 (0.0)
I am confident that simulation covered the critical content necessary for the mastery of nursing administration curriculum.	29 (82.86)	6 (17.14)	0 (0.0)
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.	28 (80.00)	5 (14.29)	0 (0.0)
My instructor used helpful resources to teach the simulation	35 (100.00)	0 (0)	0 (0.0)
It is my responsibility as a student to learn what I need to know from this simulation activity	32 (91.43)	3 (8.57)	0 (0.0)
I know how to get help when I don't understand the concepts covered in the simulation	28 (80.00)	7 (20.00)	0 (0.0)
I know how to use simulation activities to learn critical aspects of these skills.	30 (85.71)	5 (14.29)	0 (0.0)
It is the instructor responsibility to tell me what I need to learn of the simulation activity content during class time	33 (94.29)	2 (5.71)	0 (0.0)

In addition, there were no statistically significant relation between participants' satisfaction, self - confidence with simulation training and their personal characteristics ($P > 0.05$) as mentioned in table 3.

Table 3: Relation between nursing students' satisfaction level and self-confidence in learning with simulation training and their personal characteristics

Personal characteristics	satisfaction level			self-confidence in learning		
	High satisfied	Low satisfied	P-value	Very confident	Moderate confident	P-value
Age			0.99			0.99
≤ 21 years	23 (95.8)	1 (4.2)		22 (91.7)	2 (8.3)	
>21years	11 (100)	0 (0.0)		11(100)	0 (0)	
Gender			0.99			0.45
Male	9 (100)	0 (0.0)		8(88.9)	1 (11.1)	
Female	25 (96.2)	1 (3.8)		25(96.2)	1 (3.8)	
Marital status			0.99			0.16
Single	31(96.9)	1 (3.1)		31 (96.9)	1 (3.1)	
Married	3 (100)	0 (0.0)		2 (66.7)	1 (33.3)	

P-value < 0.05 is statistically significant.

Discussion:

The study revealed the highest percentages of nursing students agreed on all items of satisfaction in learning with simulation training ranked from the way the instructor taught the simulation was suitable to the way they learn to the fourth item related to teaching methods used in the simulation were motivating and helped them to learn. This might be due to that researcher use various teaching methods; such as brainstorming, role play, group discussion and various teaching media; such as videos, mannequins to mimic reality of clinical setting which motivate students' participation and learning through the use of simulation training. In addition, the researcher works as a facilitator to help nursing students during playing their roles in scenario, which enhance the relationship between them.

Furthermore, several related studies agreed with a study finding conducted in a study Saudi Arabia[10], reported that nursing students agreed upon items of satisfaction with simulation training related to the teaching methods and strategies used in the simulation were effective, and give them clear idea of what is expected from them. As well as, these findings agreed with a study conducted in USA[13], found that the majority of nursing students were highly satisfied with simulation training related to the items of the teaching methods used in the simulation were helpful and effective, the simulation provides them with a variety of learning materials and

activities to promote their learning, and they enjoyed how their instructor taught the simulation.

Next, The findings of the current study revealed that all and the highest percentages of nursing students agreed upon all items of self-confidence in learning with simulation training namely; the instructor used helpful resources to teach the simulation, and the instructor responsibility to tell what they need to learn during class time. This might be due to that the characteristics of simulation training, that faculty members provide instructional support to assist the nursing students in building their understanding of new content on simulation scenario, and create a warm, safe atmosphere in which they share experiences and ideas without fear. In addition, nursing students work in groups, use various communication skills and collaborate to carry out the required skills so they became very confident with their learning experience.

The previous findings were in agreement with a study conducted in USA, who reported that the highest scoring item within self-confidence in learning with simulation training was student responsibility to learn from simulation what they need to know from this simulation activity [8]. While, these findings disagreed with a study conducted in USA, which reported that the highest percentage of nursing students' confidence score in learning with simulation training more disagreed with items related to the instructor's responsibility to tell what they need to learn from the simulation activity during class time was the most difficult for respondents to agree [5].

On the other hand, the current study showed was no statistically significant relation between nursing students' satisfaction level with simulation training and their personal characteristics. This may be due to nursing students' satisfaction level is influenced by other factors related to realistic clinical experience of simulation, improving debriefing methods, improving students' safety practices, students believe that simulation is realistic, fun, they enjoy being in their role, they are able to think creatively, academic environment, and faculty members training not their personal characteristics. The findings disagreed with studies conducted in Egypt, and Saudi Arabia who reported that there were statistically significant correlation between age and satisfaction of nurses [9, 11].

Finally, the current study showed that no statistically significant relation between nursing students' self-confidence in learning with simulation training and their personal characteristics. This could be because of students' self-confidence level is influenced by other factors related to academic environment, faculty members' support and guidance, and coping with difficult or threatening situation not their personal characteristics. Similar studies conducted in Saudi Arabia and USA agreed with study finding and reported that there was no statistically significant correlation between age and students' self-confidence of nursing students, As well as, there was no statistically significant correlation between gender and self-confidence of nursing students [4, 11]. Conversely, a study in Egypt reported that found that there was statistically significant correlation between age and self-confidence of nurses [9].

Conclusion:

The highest percentages of nursing students were satisfied, and confident in learning with simulation training. There were no statistically significant relation between participants' satisfaction, self - confidence with simulation training and their personal characteristics ($p > 0.05$).

Future Studies:

It is recommended to conduct-training program for assistant teaching staff about the use of simulation in teaching clinical part of nursing administration course. Additionally, apply training program for intern nurse students about simulation once in every 2 months with evaluation and feedback. Finally, replication the study with a larger sample size of nursing students to provide more generalizability of the research results to other faculties of nursing.

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References:

- [1] Cant, R. P., & Cooper, S. J. (2017). Use of Simulation-Based Learning in Undergraduate Education: An umbrella systematic review. *Nurse Education Today*, 49, 63–71 .
- [2] Carson, P. P., & Harder, N. (2016). Simulation Use within the Classroom: Recommendations from the

Literature. *Clinical Simulation in Nursing*, 12 (10), 429–437.

- [3] Crowe, S., Ewart, L., & Derman, S. (2018). The Impact of Simulation-Based Education on Nursing Confidence, Knowledge and Patient Outcomes on General Medicine Units. *Nurse Education in Practice*, 29, 70–75.
- [4] Donovan, L. M., & Mullen, L.K. (2019). Expanding nursing simulation programs with a standardized patient protocol on therapeutic communication. *Nurse Education in Practice*, 38(May), 126–131. from: [https:// DOI: 10.1016/j.nepr.2019.05.015](https://doi.org/10.1016/j.nepr.2019.05.015)
- [5] Franklin, A.E., Burns, B., & Lee, C.S. (2014). Psychometric testing on the NLN Student Satisfaction and Self-Confidence in Learning, Simulation Design Scale, and Educational Practices Questionnaire using a sample of pre-licensure novice nurses. *Nurse Education Today*, 34(10), 1298–1304.
- [6] Herron, E. K., Powers, K., Mullenc, L., & Burkhardt, B. (2019). Effect of case study versus video simulation on nursing students' satisfaction, self-confidence, and knowledge. *Nurse Education Today*, 79, 129–134.
- [7] Jeffries, P. (2020). *Simulation in Nursing Education: From Conceptualization to Evaluation*, New York. *Lippincott Williams & Wilkins*, 23.
- [8] Lubbers, J., & Rossman, C. (2016). The Effects of Pediatric Community Simulation Experience on the Self-Confidence and Satisfaction of Baccalaureate Nursing Students: A quasi Experimental Survey. *Nurse Education Today*, 39, 93-98.
- [9] Mohammed, S., & Ahmed, H. (2016). The effect of simulation training on nurses and intern-nursing students' skill, confident and satisfaction regarding neonatal resuscitation. *IOSR Journal of Nursing and Health Science*, 5(5), 17-27.
- [10] National League for Nursing (2012). *Research and grants: Descriptions of available instruments*. Retrieved April 15, 2019, from: http://www.nln.org/researchgrants/nln_laerdal/instruments.htm
- [11] Omer, T. (2016). Nursing students' perceptions of satisfaction and self-confidence with clinical simulation experience. *Journal of Education and Practice*, 7(5), 131-132. from: <https://www.iiste.org>.
- [12] Taylor, T.D. (2018). The effects of nursing program simulation experience level and type of advanced organizer on clinical judgment performance, satisfaction, self-confidence, and perceived cognitive load of pre-licensure nursing students in simulation based learning. *University of South Alabama*, 25-122.
- [13] Zapko, K. A., Ferranto, M. L. G., Blasiman, R., & Shelestak, D. (2018). Evaluating Best Educational Practices, Student Satisfaction, and Self-Confidence in Simulation: A descriptive study. *Nurse Education Today*, 60, 28-34. from: <https://doi.org/10.1016/j.nedt.2017.09.006>