

## Student's Insight about Simulation and Skills Learning

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### Abstract

**Aim:** This article assesses the student's insight about simulation base skills learning. Back Ground: Simulation is a teaching style which is appropriate for professional skills learning because it is parallel to real situation. In nursing education it is being used in many ways to train learner in professional skills. In 1960 first health-care simulation manikins were presented (Jeffries et al., 2015). A study reveals that students expressed that simulation is helpfulness, comfort and a Clinical simulation is important approach for professional skill learning programed (Padilha, Machado, Ribeiro, & Ramos, 2018). **Method:** A cross-sectional descriptive study design was used. This study evaluates the student's insight about simulation base skills learning in nursing education. 133 participants filled the Simulation Evaluation Survey (SES) form. A study setting was a private sector university. In this study random sampling technique was used. **Results:** Study results revealed that this approach enhances learner knowledge and skill performance. Quantitative Survey data facts regarding simulation experience revealed the students feedback that simulated body approach can Amplified knowledge about relevant content for practice, which have been utilized (96.9%). During the debriefing session of practice, participant felt that the faculty involve in this approach was Knowledgeable (98.5 %). After simulation session students' knowledge Increased about content discussed, (97%). Survey data facts explore that students feel better prepared for real patient care after simulation practice (94%). **Conclusions:** This study concluded that through simulation base learning, students get improvement in different aspects, like enhancement in knowledge, confidence, and performance. This study reveals that students feel confident, skillful and can give better performance in real clinical setting.

**Keywords:** Nursing Education, Clinical Simulation, Skill Learning.

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### INTRODUCTION

Health-care organization has a key part in serving the societies. It prevents from illnesses and delivers different curative services for enhancement of individual's well-being. In present time health-care organization has been transformed, owing to this the institutions delivering nursing training have transformed their coaching techniques for excellent learning and well-grooming of their learners, But still institutions need to work-out how to educate their learners that they could be capable to grip multiple complex circumstances with sureness. After development in technology a new and operational method called simulation is being used by the institutions. The basis of nursing training will be on creative directions. Tutors in nursing training would taught their learners different

skills by using improved approaches for directions. So progression in style has delivered several innovative teaching approaches for professional growth of nursing students, Simulation is one of them. Literature explore that the main objective of simulation is to enhance patient care and to support learner to be brilliant, and link their academic learning with clinical practice [1]. Most of the institute's trainers utilized simulation for their student's professional development.

Simulation is a learning method that is vital for professional competency in nursing training and it is being used in many ways in today's universe while performing nursing instruction or trials. From Long-time simulation is well-known, and different administrations like army, nuclear authority and air-

craft manufacturing companies etc., use this method throughout their training periods. Aviation (flying) division use simulation for their flyers' proficient training before real aerospace and nuclear power zone also practice this skill for different tragedy managements.

The character of simulation is very significant in health-care and is deliberated an important part of training of health-care workers. Numerous health-care administrations denote the use of this method in their teaching courses. Simulation delivers innovative understanding of learning for students of nursing training and offers diverse care for patients. Simulation has made it probable that the nursing learners can exercise their clinical methods during their learning & training periods before performing in real time on their patients.

A study reveals that nursing students expressed the perceived helpfulness, comfort, and intention to use clinical simulation as an important balancing method for their learning programed [2]. As in progression in healthcare technology nursing practices have been changed [3]. Computers deliver immediate interaction to nurses for altered sources of present and earlier clinical circumstances of patients and proficient structures are also used by numerous developed associations to deliver recommendations on clinical situation of patients. Simulation can be used in altered ways e.g. simulation for human-patients, cybernetic and computer centered. Data through system also delivers value-able knowledge in accumulation to the knowledge of individual nurse or the occupation as an entire [3]". Simulation has been utilized for psychomotor skills [4]. Simulation is used earlier in genuine presentation of an activity because it trained learners just like carrying out in real sense. In nursing education simulation is being used through several techniques and first health-care simulation was used in the early 1960s [5].

Sub-missive learning practices are being replaced by investigational learning, it means dynamic learning approaches where-by learners are considered the middle of the teaching and renovation from mere patrons of learning to tangled energetic students [6].

The expansion of simulation equipment should consist of the growth of simulation processes executers to offer assistance to faculty involved in the plans of the curriculum. Also funds for faculty progress, distribution of faculty work-load hours to maintain best practices, and the delivery of properly truthful circumstances [7].

Simulation approach is a learning style that is being utilized in nursing training to educate learners for the restorative work station. This Clinical Simulation is considered the requirement of Pakistani undergraduate nursing training to raise the morals of learning and

caring in profession by developing the supportive teaching community for the learners. Nursing institutions of the Pakistan have different kinds of resources and staff distribution for usage of simulation method. This study of Simulation and Skill Learning in Nursing Education was revealed the worth of simulation in learning setting.

The study aim was to assess the learner insight about the role of simulation for nursing professional skill learning. This descriptive study clears the baccalaureate students, understandings about simulation. Choice of the practicing students was grounded on their diverse happenstance with simulation to offer exhaustive information in-relation to their knowledge. Numerical figures exposed learners' assessment about simulation activities during practice. The simulation base learning improve the different aspect of participant who involve in simulation about thoughtful and caring practice.

There were numerous rational of this study, this study have provided baseline data for further research on student nurses for skill learning through simulation. Participant of this study who utilized the simulation they substantially improved in knowledge, skills learning, satisfaction, and in critical thinking. The study objectives was, assess the student's insight about simulation base skills learning.

## MATERIAL AND METHODS

**Study Design:** A cross-sectional study design was used.

**Settings:** A private University of Lahore.

**Duration of Study:** September 2018 to March 2019.

**Target population:** Nursing students of BSN program (N=200)

Sample Size: 133 participant [According to Solvin formula  $200/1+200*(0.05)^2$ ] of different nursing semester of Post RN and Generic BSN semesters was chosen for quantitative data.

Instrument: data was collected through a simulation evaluation survey form [8], Likert-type scale was used to measure the response of students on survey statements. This scale have ranged from 1 to 5 as strongly disagree =1, disagree =2, neutral =3, agree=4, strongly agree = 5.

**Sampling Technique:** in this study Random sampling technique was used.

**Sample Selection**

**Inclusion Criteria:** In this study, students of age 17- 35 year and enrolled in BS Nursing program was included.

**Exclusion Criteria:** Participants was excluded who were repeating the course, enrolled in other nursing program, or attended any other simulation based learning program previously.

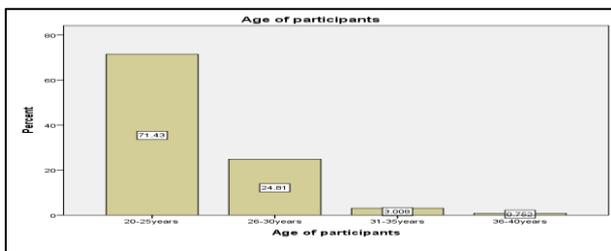
**Data Analysis:** Quantitative data was entered into SPSS. Descriptive statistical (Percentage, frequency, mean and standard deviation of each item) analysis was conducted.

**RESULT**

This chapter of result provides data from demographic Data, and simulation evaluation survey form. In this study a cross sectional descriptive design was applied, to gain a general understanding of students about simulation related skills learning experience.

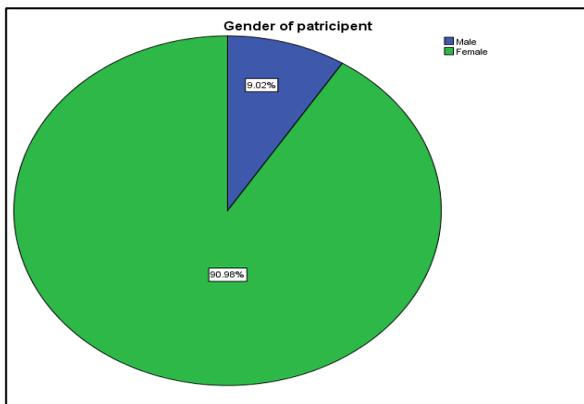
**Demographic Data**

In this study different age group of students was participated. 20-25 years students were 71.43%. 26-30 years students were 24.8%. 31-35 years age students 3%. 36-40 years students were 0.8%. (Graph No. 1)



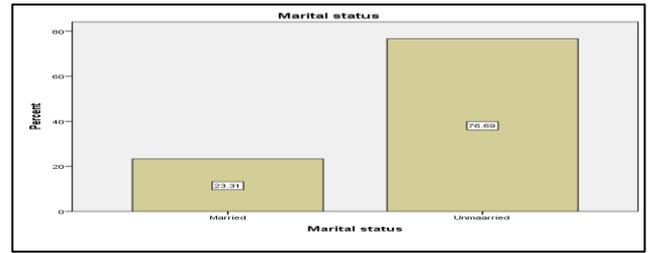
**Graph-1: Age of the Participant**

In this study both Gender of participant were involve in this study, Male were 9% and Female were 91% (Pi-chart. 1).



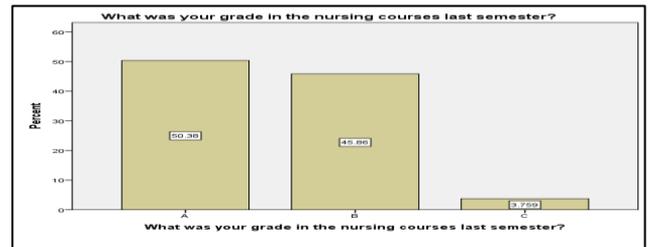
**Pi-chart-1**

Married participant were 23.3% and unmarried were 76.7%. (Graph No. 2)



**Graph-2**

The participant grades of last semester in the nursing courses were, in **A** grade 50.4% and in **B** grade.



**Graph No-3**

**Survey Data Regarding Simulation experience**

Descriptive statistical data of Participants responses regarding simulation survey is presented in table1. Likert-type scale was used to measure the response of students on survey statements. This scale have ranged from 1 to 5 as strongly disagree =1, disagree =2, neutral =3, agree=4, strongly agree = 5. Later on strongly disagree merged with disagree, and in same way strongly agree merged in agree.

Participant of this study sample size was N = 133. mostly participant of this study answered that they face many Challenged in professional thinking and decision making skills (97.8%) and students have believe that simulated body approach can Amplified knowledge which content relevant to practice have been discussed (96.9%) during the debriefing session of practice participant sensed that the faculty involve in this approach is Knowledgeable (98.5 %) and students responded that debriefing and discussion are valuable in simulation practice and Post discussion enhanced worthy class content knowledge (97 %). simulation base learning tactic supports to learner for understanding the roles of other health care team members,(94%). Majority of participant reflected that students were satisfied with organized activity (94%). Students likeness indicate that students have faith in that they learned by observing and actively involved in caring for the simulated patient (94.2%) students response show through percentage that they were more confident in credit of changes in patient’s state (97%) and they Feel better prepared for real patient care (94%) respondents enjoyed simulation which show in this percentage value (95.5%). participant response indicate that Pre-simulation projects prepared learner for simulation practice (94.7) (Table 1).

**Table-1: Simulation Survey Data**

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	1	2	3	4	5
1) Face Challenge in decision making and thinking.	0	0	3 2.3%	55 41.4%	75 56.4%
2) Amplified knowledge about content.	0	0	4 3%	53 39.8%	76 57.1%
3) Knowledgeable faculty	0	0	4 3%	52 39.1%	77 57.9%
4) Discussion and Debriefing Value.	0	0	2 1.5%	42 31.6%	89 66.9%
5) knowledge enhanced through post discussion	0	0	4 3.0%	45 33.8%	84 63.2%
6) Understand roles health care team member	0	0	8 6.0%	40 30.1%	85 63.9%
7) Organized Activity	0	3 2.3%	5 3.8%	42 31.6%	83 62.4%
8) Learned by observing when energetically involved in simulated patient caring.	0	4 3.0%	6 4.5%	49 38.6%	74 55.6%
9) Changes in patient's condition give more confident.	0	2 1.5%	2 1.5%	49 36.8%	80 60.2%
10) Better preparation for caring of real patient.	0	3 2.3%	5 3.8%	63 47.4%	62 46.6%
11) Enjoyed with simulation practice.	0	2 1.5%	4 3.0%	59 44.4%	68 51.1%
12) Pre- assignments for simulation practice.	0	2 1.5%	5 3.8%	62 46.6%	64 48.1%

Sample Size (N) = 133

## DISCUSSION, LIMITATIONS AND CONCLUSIONS

This chapter consists on discussion, conclusions, limitations, and the recommendations for research. This study contain 133 participants, through this study exploration simulation have constructive learning experience. Simulation have helpful character in aggregate the knowledge and practice experience. On behalf of participant response simulation is quit favorable to enhance knowledge and skill learning experience. Responses revealed that after simulation session students' knowledge Increased about which content had been discussed. Literature describe that, The pre-graduate students revealed that clinical simulation have important balancing method for nursing skills learning programed and they perceived knowledge, helpfulness, comfort [2].

The participant described that they feel expert for caring the real patient after simulation practice. Simulation is a helpful tactic for skill learning with suitable manner. Students learned manner of caring by practicing on simulated body as much by observing as when actively involved in caring for the simulated patient. A research outcome discloses that simulation rehearsal improved clinical experiences, Knowledge, and safety attitudes [9]. Simulation enhances skills performance, professional experience, after simulated practice. Current simulated technology has capability to

improve students' skills, knowledge, and suggestion the prospects to get ready for real practice [10].

Literature support that the major objective of simulation is to enhance care of patient and to assist the nursing undergraduates to be more talented and connect their academic knowledge with clinical practice [1].

### Limitations of the Study

A single school nursing program students reflects the experiences, Furthermore, sample size and sampling method effect the generalizability of the study results.

## CONCLUSIONS

A significant supposition that develop from this research work is that nursing students get improvement in different facet, This study revealed that simulation base learning approach improve the different skill learning aspects of nursing students and this method enhance knowledge and learner feel confident, skillful and better performance in real setting of clinical health care.

## REFERENCES

1. Sharp, R., Tallis, H. T., Ricketts, T., Guerry, A. D., Wood, S. A., Chaplin-Kramer, R., ... & Vigerstol, K. (2016). InVEST+ VERSION+ User's Guide. The Natural Capital Project.

2. Padilha, J. M., Machado, P. P., Ribeiro, A. L., & Ramos, J. L. (2018). Clinical virtual simulation in nursing education. *Clinical simulation in nursing, 15*, 13-18.
3. Loose, T. C., & Greenberg, J. C. (2008). Simulation of mechanical reels on a gaming machine: Google Patents.
4. Blum, C. A., Borglund, S., & Parcels, D. (2010). High-fidelity nursing simulation: Impact on student self-confidence and clinical competence. *International Journal of Nursing Education Scholarship, 7*(1).
5. Jeffries, P. R., Dreifuers, K. T., Kardong-Edgren, S., & Hayden, J. (2015). Faculty development when initiating simulation programs: Lessons learned from the national simulation study. *Journal of Nursing Regulation, 5*(4), 17-23.
6. Norman, J. (2012). Systematic review of the literature on simulation in nursing education. *ABNF Journal, 23*(2).
7. Jeffries, P. R., Dreifuers, K. T., Kardong-Edgren, S., & Hayden, J. (2015). Faculty development when initiating simulation programs: Lessons learned from the national simulation study. *Journal of Nursing Regulation, 5*(4), 17-23.
8. Adamson, K. A., Kardong-Edgren, S., & Washaus, J. (2013). An updated review of published simulation evaluation instruments. *Clinical Simulation in Nursing, 9*(9), e393-e400.
9. Shearer, J. E. (2012). High-fidelity simulation and safety: An integrative review. *Journal of Nursing Education, 52*(1), 39-45.
10. Dodds, C., Heslop, P., & Meredith, C. (2018). Using simulation-based education to help social work students prepare for practice. *Social Work Education, 37*(5), 597-602.