NURSING SPECIALITY STUDENTS AND EDUCATORS PERCEPTION AND EXPERIENCE OF SIMULATION BASED LEARNING AT SPHMMC: A QUALITATIVE STUDY

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A thesis to be submitted to School of Medicine College of Health Science, Addis Ababa University for the partial fulfilment of masters of science in Medical Education.

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This is to certify the thesis prepared by Seada Adem entitled NURSING SPECIALITY STUDENTS AND EDUCATORS PERCEPTION AND EXPERIENCE OF SIMULATION BASED LEARNING AT SPHMMC and submitted in partial fulfilment of requirements for the degree of masters of science in health science education complies with the regulation of the university and meets the accepted standards with respect to originality and quality.

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ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE SCHOOL OF MEDICINE

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ADDIS ABABA, ETHIOPIA

BY

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LIST OF ABRIVIATION AND ACRONYMS

AAU Addis Ababa University Acronyms

HFS High fidelity simulation

SBL Simulation based learning

SPHMMC Saint Paul Hospital Millennium Medical College

Abstract

Background: using simulation-based learning for nursing is a safe environment for students to have good skills and knowledge translation from theoretical to practical.

Objective: to explore the perceptions and experiences of nursing specialty students and educators of simulation-based learning.

Methodology: Because of the goal of this study need detail information about their perceptions and experience, qualitative approach was applied by using tow focus group discussions with the students and three interviews with educators.

Result: Almost all participants have positive perception about SBL as it helps the students to have skill for different procedure and manipulating some medical equipment's and machine, build confidence and to become competent before they go to real clinical area. But they don't have a chance to use this method properly because of less attention given by the administration, (organizational and department), poor time management from the department as well as educators. Less use of the strategy (SBL) because of shortage of materials.

INTRODUCTION

1.1 Background

Simulation is an event or situation made to resemble clinical practices closely as possible. It can be used to teach theory assessment, technology, pharmacology and skills. The emphasis in simulation is often on the application and integration of knowledge, Skills, and critical thinking.[1] Simulation is an educational strategy that can be used to support the process of clinical education. Simulation can help in improving students' self- esteem through provide an opportunity to clinical practice in a risk-free environment.[2]

It is also believed that simulation-based nursing education become a popular pedagogical approach. It provides students with opportunities to practice their clinical and decision- making skills through varies real life situational experiences.[3] Simulation is an effective pedagogy for educating health professionals and used extensively in undergraduate nursing education.[4]

Simulation has demonstrated effectiveness as a method to train practicing nurses for new procedures, communication processes, and both skills based and non-skill-based technique. This can be done using a variety of methodologies, ranging from simple role play to the use of high-fidelity and virtual simulators.[5] Simulation represents an innovative teaching modality that stimulates a number of senses at the same time among learners. Simulation is a method which can be designed to reflect real life conditions, and which provides the opportunity to work in contexts that are closer and more representative of real settings.[6] That is why another study ascertain Simulated learning increase students' confidence and prepares students for real clinical setting.[7]

Simulation can create transformational learning experience for all nursing students and provides diverse perspectives on caring for patients across the continuum of care. Learning in simulation allows for student cognition or learning in context-a concept at the forefront of contemporary educational reform.[8]

During a simulation, it is possible for students to engage in "trial and error" without consequence that is to say without harming a live patient. Advanced biomedicine and an aging population with

complex medical needs place a greater demand on the need for nursing competency. Changes in health care Services require advanced nursing skills and preclinical training leads to enhanced patient safety.[9]

Literature reported that using simulation as a teaching strategy had positive impact on various aspects of teaching and learning, at the same time, some nursing students perceived simulation as not matching the actual clinical practices, stressful environment and uncomfortable way to learn. This kind of negative perception may drag the process of learning and influence student's involvement and the fidelity of simulation.[2]

Moreover, DeCarlo et al. (2008) showed that simulation was considered a stressful environment which can be a barrier to participate in simulation. Tentatively, seconded year students anticipated simulation as an enjoyable and pleasant new experience, but once they entered as a course requirement, they started feeling stressed and frustrated and perceived simulation experience as a confrontational learning approach.[2]

The assessment of students' attitudes and perception toward simulation is necessary as these likely influence the outcome of simulation. The complexity of the relationships between attitude and perception, the simulation, and the outcome of simulation is evident and influenced by various factors such as fidelity of simulation, type of students, and type of scenario. Even though simulation is known to positively impact various learning outcomes, simulation, as an educational technique, has its difficulties, and can be perceived as a confusing and stressful learning event.[2]

1.2 Statement of the Problem

So many studies show that simulation-based learning is effective modality to have good skill for all health professionals. Hence, this modality is included in the curriculum of nursing specialties program at SPHMMC.

However, attending simulation session has been seen as a poor experience for some final year nursing specialty students and educators at SPHMMC. As this is support by different studies showing that not all members that use simulation has positive attitudes about simulation-based learning. This leads to the researcher to have study on this area.

On the other hand, as this specialty is new, there is no enough study in Ethiopia that shows about the experience of the nursing specialty students and educators. Therefore, it is essential to explore their perception, experience, and the relevancy of simulation session and level of the simulation room.

1.3 Significance of the Study

Poor perceptions of simulation-based learning of students and educators could lead to the lack of skill development in safe environment, could also produce bad habit among the student's community and may waste time of the organization.

By exploring the student's experiences, perceptions of the relevancy of simulation and organizational level of simulation, this study will contribute to have a better organized simulation, making low stress simulation session and to enhance simulation experience.

2. Theoretical Approach

Situated learning is a theory on how individuals acquire professional skills. A situated learning environment involves students working in authentic learning situations where they are actively immersed in an activity while using problem solving and critical thinking skills. These opportunities should involve a social community which replicates real world situations. The situated learning experience should encourage students to tap their prior knowledge and to challenge others in their community. (Stein, 1998)

3. Literature Review

The purpose of this review is to show the results that were found by different authors about the experience and the perception of students and educators about simulation-based learning.

By using a Q-sort methodology, Janet L, Akhtar-Danesh, Baxter, Van Eijik, Hamilton, Evers (2015) studied the perception of students and the faculty members. They found that the faculty member's perception about simulation-based learning is positive view point for providing a safe learning environment. But also, the teacher mentioned there were limitation to the amount of realism possible with HFS. From the perception of students, there are three view points; the first view point of the students reported they saw great potential for HFS, and while they did value their short simulation experience, they felt the simulator could be better used to give them experience with more variability and unpredictability in scenarios; they reported greatest comfort level with computer technology in general. They envisioned additional learning opportunities with expanded roles and greater complexity in the scenarios.[11]

Another study shows teachers experienced challenge to help students during the scenario. This described by one teacher to how some students seem to think when they lose efficiency and become stalled during the scenario. And it is believed for the teachers that some students had more hindrance overcoming being observed, than others.[12]

Students' attitudes and perceptions were generally in favor of simulation. In addition, the majority of students showed a high level of understanding and optimistic attitude toward simulation.

The other view point which point out in the literature is students experienced anxiety during SBL and wanted additional faculty and staff support. They also did not believe that experience with simulation decrease their anxiety in the clinical unit and that did not help with organizational skills they were highly critical of simulation learning if they did not get the level of support they want.[11] Nye, C., Hebert, Short, Thomas, M., (2019) also showed that students were felt another barrier for simulation is that simulation hours do not count as clinical hours by credentialing.

Students explained that they were feeling uncomfortable and irresolute as the HFS was unfamiliar to students, they were not sure how to manage the manikin and the situation. Some expressed that simman was scary to face and finally make them confused.[12]

Again Marie H., Britt, B., Iren V., Karin H., Cecillia, S., Lisbett K., (2017). Found that 'many of the students felt that being observed during the simulation was uncomfortable and made them feel judged. They had trouble dealing with the observation and assessment situation. Especially at the beginning of the simulation some students expressed a high level of stress because of the observer and said that this affected their ability to enter in to the situation' Marie H., Britt B., Iren V., Karin H., Cecillia S., Lisbett K., (2017). This also found by another study by J, Vermeulen, et.al (2017), being observed by lecturers and peers was a source of stress for most of them as they wanted to prove themselves and some students felt that being observed was comparable to being evaluated; they perceived HFS as an assessment rather than learning opportunity.

Since debriefing is one of the major parts of simulation, Young, S., Roh, K., (2017) found from their study of survey of factors influencing learner engagement with simulation debriefing; learner participation influenced by simulation design, confidentiality, stress, and number of students. Simulation design was the most important factor influencing learner involvement with simulation debriefing. [15]

In the other study of exploring nursing attitudes of simulation-based learning the authors founded two factors, which are, students realize that SBL provides deep learning and improved clinical competency, they are likely to develop positive attitudes in this risk-free learning environment. The potential outcomes could not be achieved until students develop a positive attitude and realize that simulation can help them achieve the required clinical competency to practice as qualified nurses. Nurse educators involved in simulation should examine their students' attitudes to encourage them to accept, engage, and value the role of SBL in preparing them for clinical experiences. It is well known that attitude is a construct that has received limited attention in simulation. Therefore, it is important that nurse educators provide innovative strategies in the area of expected clinical competency and effectiveness of simulation to promote students' positive attitudes in simulation learning experiences. Xuelin Z., Rosemary, W. E., Violeta, L., (2017).

4. Methods

4.1 Research Questions

1. What are the perceptions of nursing specialty students and educators at SPHMMC regarding the use of simulation-based learning?
2. How have they experienced their simulation sessions in their current specialty program?
3. How do they report simulation has been used in the curriculum?

4.2 General Objective

- To explore the perceptions of nursing specialty students and educators of simulation-based learning and their experience during all simulation sessions scheduled in the current specialty program.

4.2.1 Specific Objectives

- To explore the perception of nurses and educators regarding use of simulation-based learning.
- To explore the experience of students and educators during all simulation session they had in their current specialty program.
- To explore how simulation was used in the curriculum.

4.3 Design and Setting:

4.3.1 Study Area and Period

The study was conducted at PHMMC Addis Ababa Ethiopia which is one of the largest Hospital in Ethiopia and founded by Haileselase in 1969.it was performed from January 2020 to April 2020. There were 74 students and 34 educators from five specialty departments with the average number of students 15. From the educators only 15 were participating in simulation.

4.3.2 Study Design

Given that the goal of this study was to explore final year nursing specialty students and educators' perceptions and experiences, a qualitative approach was applied by using focus group discussions with the students and interview with educators. There were two focus groups from different departments and there were eight students for each group. Whereas, because of the number of the educators are small and their availability at the same time is less, we had interview with semi structured questions. From five selected participants, only three of them participated. Data collection was performed in Amharic and was transcribed by the researcher and finally translated to English.

4.3.3 Study Population

The participants were students and educators who were willing to participate in this study from different specialty departments.

4.3.4 Sampling procedure

The sampling was from74 nursing specialty students, there were two focus group eight for each. interview was conducted with three educators from different department until the information become saturated.

5. Data Collection

Each focus group took 45min to one hour. And the interview with educators was conducted with three educators using semi structured open ended question, each took 30min to 40min. During the focus group discussion and interview the researcher took notes for better information and other explanation from the participants. All the interview and discussion were audiotaped.

The participants were invited by face to face communication before the actual day of the discussion. Telephone number was taken from all participants to remind them three days earlier of the program. The data collection was performed during their lunch time for those who have class. There was good communication and create smooth environment.

6. Data Analysis

The collected data was transcribed and classified according to the answer of the participants. Appropriate theme and sub theme were developed from the transcriptions. The data of this study was analyzed inductively starting from the whole data consisting of different information went to specific theme. Some sentences were kept as it is to show the participants feeling originally.

7. Scope of the Study

This study was mainly concerned on the perception and experience of simulation of final year nursing specialty students and educators at SPHMMC.

8. Ethical Consideration

Ethical approval and clearance were obtained from Addis Ababa university institutional review board (IRB). There were no potential risks that was cause any harm in any form on the study subject. After obtaining permission from AAU administrative office, participants were provided information about the objective and expected outcome of the study. They had the right to refuse and withdraw from the study. informed consent about the study subjects was performed. All information was private and confidential.

9. Dissemination of the Study

The result of this study will be present to AAU and in different seminars and disseminate to the library and will be used as reference.

Results

Participants from the students and from the educators were participated in the study. All of them had positive perception about SBL. According to the participant's perception, student should acquire skills through SBL before participating on the real patient. The participants believed that SBL is a way of learning about the setup of each specific department, improve skill for each specific procedure, to decrease patient risk, to build confidence and to become competent when they face the real patient.

They also mentioned that SBL was the best way to understand and to have skill how to manipulate the equipment's and machines which are found in different rooms for example, ICU and OR; before they go to real clinical area. Having these kinds of experiences was one of the best ways to develop confidences.

Perception of the nursing specialty students and educators of SBL

All of the participants had positive perception about SBL. According to the participants, this was because of the following main reason:

1.Knowledge and skill improvement

Using Simulation based learning was a good opportunity to have a knowledge about the setup of each different specialty department looks like, to have skill about different procedure, and different materials.

OR 2 Having simulation session before clinical activity is a better way of training in medical education to have an opportunity of skill development rather than lecture. Because we can read from any were for theoretical knowledge but we cannot find the practical one unless otherwise we practice in the simulation.

2.Patient risk

In simulation, there were trial and error which could not be happened in the patient. simulation helps the student to participate without fear. this decrease patient risk in the real practical area.

N2 It is better to give us one simulation session rather than ten lectures to develop skill and become confident.in SBL we could practice repeatedly until we acquire adequate skill before with start to practice on real patients, we could get peer suggestions and comments from the students and also from teachers

3.Confidence and competent

Having preclinical knowledge and skill with simulation make the students confident and competent.

OR1 As specialty students, we will not to be ashamed during clinical activity if we had simulation which can give us an opportunity to have skill and confidence for routine practice and for managing the instruments which is found in the real room before practical attachment.

Experience of the nursing specialty students and educators of SBL

The experiences of the participants are categorized in three different phases they faced. Before simulation, during simulation and after simulation-based training. This could also be classified in different theme and sub-theme.

1) **Nursing specialty students and educators experience before simulation-based learning.**

During this phase, the participants were undergoing through different experience from different aspect like the attention which was given by the administration, departments, educators and students. The participants mentioned that this was one of the most difficult and sensitive times of their experience which they faced during their training.

A. Attention to SBL: according to the participants, the attention given to SBL was weak. These was happened from different stakeholders and cause difficult experience for the participants as follows:

I. **Attention given by Administrative**: the attention which was given to SBL was described by participants were from different direction; from the arrangement of the room, availability of

materials, and quality of educators and also there was discrimination between nurses and medicines students. This made their pre-simulation experience boring.

Ed2 The administration did not give attention to SBL for nurses to achieve the organization mission. That is why it's hard to give training using simulation. For example, after constructing dedicated room for the purpose of simulation room, despite simulators in the room; they immediately changed to another department. Ohhhh you know this order was given by the higher administrative staff. This was causing less participation and bad feelings for educators when we think about SBL.

Er1 I don't think that St. Paulo Hospital does not have the capacity to organize simulation room and materials for SBL, rather it was given less attention. because when I was in the attachment, I saw some machines in the store which were kept without any purpose, but these machines were important if they were placed in simulation room for us to practice

P1 It was good to have simulation simulation-based learning but we couldn't get the chance because the room was occupied by medicine students, then we were waiting the whole day without anything…. this happened so many times to us and made us think that our profession is useless. Especially in Paulo's they do not care about nurse students. There is big different to give attention for nurses, they don't care about nurses. I think medicine is a team work and if one part of the team is loose, medical practice will inefficient, that, 'eski medicine (doctors) bicha sisera enayallen!!'

II. Attention given by Nursing Departments

Most nursing specialty departments were blamed by the participants especially by the students because of its low attention for the SBL, poor performance regarding to the arrangement of the schedule, time management, communication gap between educators and simulation room personnel, and there was no follow up system for the training, and the department didn't have the power to use simulation room as they need. But some tried to fulfill this.

S1 There is big gap between the management and simulation room personnel and educators there is no regular programed schedule. That is why we spent time until the room open or until the educator came for us.

P2 Nursing departments should work to have the power to engage the simulation room as soon as they need it. otherwise they (administration) only give the chance to medicine students. Or they should have their own simulation room.

N3 The departments managing system is not giving attention for this strategy (SBL) even the materials that are found in the organization are not include in the simulation room.as the same time there is no follow up system to manage this program whether the students and educators used it or not.

Ed2 There is no arranged schedule as in the curriculum have. When we came for simulation, it occupies by other students or the room is closed. Again, we will wait until somebody come for us or waiting until the room become release to us. But at this time the students were scattered to their personal social occasion or other.

III. Attention given by Educators

Educators spend more time for lecture than simulation. Students reported that, sometimes, they do not use the time which was prepare for simulation and they were not came on time. The students spend their time by waiting the educators around the room also the person who is assigned to the simulation room may or may not come. sometimes the key gets lost. These reasons discourage students to attend the simulation session

N1 When we go to simulation, we waste our time waiting educators, searching the instruments and key. When we ask what is going on, they call everybody's name. 'ekele yizotal ekele yizotal yibalal'. There should be a responsible and accountable person for simulation room.

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2) Nursing specialty students and educators experience during simulation-based learning.

I. Room setup and arrangement:

The participants mentioned that the room setup and arrangement was poor as it was not simulating the real one, poor electrical system for machines, no water supply, poor ventilation and place of the instruments were not arranged accordingly.

Ed2 The room setup should rearrange including the arrangement of materials in its specific place and order, otherwise we don't fined the instruments as we need as well as killing time by searching the instruments.

II. Materials and procedure

There was shortage of materials for all specific procedure (GYN, ORTHO, etc.). And also, the available instruments not functional. On the other hand, most of the time there is only one station for all procedure.

R4 During simulation, most of the time we are saying "assume" for some kinds of materials; this is because of the absence of materials or it is non-functional.

Ed2 It is difficult to teach students by saying' assume that', because of shortage of materials and with nonfunctional instruments .as the same time we don't have special training to give special skill for specialty students.

Ed1 Non-functional instruments and materials were affecting the training and make it difficult to teach the students properly.

III. Stress due to work load

Numbers of procedure of simulation training was given as the same time. This was done when the time of clinical attachment was close and close.

Ed1 there should be immediate simulation session after a lecture for specific topics as mentioned in the curriculum rather than giving all procedure at the same time for different topics. This causes burden for the students and difficult to be effective.

R3 The teacher came and teach as different procedure at the same time during one simulation session. This was happened when the time of clinical attachment come to close. This may last for long day and cause stress rather than skill.

IV. Quality of educators

The participants from students affirmed that the educators were not as much as skilled, dedicated, not well prepared to train and sometimes were not understand the local situations.

P1 I was asking the teacher to show us how to manipulate perfuser but he told me that he didn't know it

S1 he/ she came to us without preparing himself and confused us rather teaching.

R2 one of our problem during simulation session is spending time with foreign educators, it was boring because we can't understand each other because of language barrier, the situation that they t teach us and the local situation is different as they broad without materials availability.

N3 I didn't see any teacher who shows us the whole procedure with its proper protocol during the training because he didn't know himself.

3) After simulation-based learning

The participants mentioned that they develop depression and feel incompetent because they didn't get sufficient practice of skills as specialty skill as special students to perform in the real clinical area during clinical attachment.

S2 I felt ashamed because when I went to practical area, I don't have any special skill from simulation which I can apply in the real place.

S1 After simulation session, we talked each other why we are here? We became confused… because we didn't get anything from the session we always fear, ashamed when we went to clinical area.

P1 I came here to know and develop special skill as they mentioned before 'it is specialty program'. if I knew this, (what was happening in simulation room) I would not come.

P3 After SBL we talked about what will happen during our clinical attachment; rather than standing in the wall (in hospital) because we don't have skill before clinical practice and felt ashamed.

How simulation was used in the curriculum

Because of their experience before, simulation in the curriculum not used properly

a) Because of the attention which was given to SBL.

b) Because of the material shortage.

c) Because of less opportunity to nurse students.

S1 We don't use the time mentioned in the curriculum because there is no material for all different kinds of procedures thus; there is repetition of materials, as the result the teacher and students do not come regularly. And also, if we want to demonstrate with available material, we don't have a chance for that because of less attention for nurses and absence of educators.

S2 I don't have any special skill as specialty students because, I didn't get the chance to practice in the simulation according to the time in the curriculum

N2 We jump the time for simulation because there is no material, educators, free room for us for this reason we don't use all time in the curriculum.

Discussion

All participants from nursing specialty students and educators were perceived that using simulation based learning have a benefit regarding to: its safe environment for students to practice without harming patient, become skilled and competent before real clinical attachment ,have skill for managing and manipulating instruments and machines, and feeling confident in some ways, my findings are similar to those reported by Janet L, Akhtar-Danesh, Baxter, Van Eijik, Hamilton, Evers (2015) when they studied the perception of students and the faculty members. They found that the faculty member's perception about simulation-based learning is positive view point for providing a safe learning environment. And also, students' attitudes and perceptions were generally in favor of simulation. In addition, the majority of students showed a high level of understanding and optimistic attitude toward simulation.[2] In the other study of exploring nursing attitudes of simulation-based learning the authors found two factors, which are, students realize that SBL provides deep learning and improved clinical competency, they are likely to develop positive attitudes in this risk-free learning environment.[16]

When we come to the experiences of students and educators of this study, it shows somewhat different result. Here the participants raise their experience before, during and after the time of SBL. Most of the literature result reports only on experiences that happened during simulation. Of those experiences, the students relate their experience with being observed by the teacher and peers, they develop anxiety and stress. But in this study the cause of anxiety was too much procedure at the same time, poor of use of simulation, lack of skill due to poor practice experience in the simulation session and less confidence to meet the real clinical environment.

The other cause of stress was after their simulation session that they think that they don't have the skill for the real clinical area and feeling incompetent.

The findings of the current study also raise questions about how well prepared of educators are teach using simulation. That result is relatively similar result with. Xuelin Z., Rosemary, W. E., Violeta, L., (2017) study; it is important that nurse educators provide innovative strategies in the area of expected clinical competency and effectiveness of simulation to promote students' positive attitudes in simulation learning experiences.

On the other hand, the most difficult time for the students and educators in this study was the shortage and non-functional materials and the attention which was given by all levels of staff members. But in the literature, shortage and non-functional materials were not a problem. Rather, students said that their experience from materials was feeling uncomfortable and irresolute as the HFS was unfamiliar to students and they were not sure how to manage the manikin and the situation. Some described that simman was scary to face and make them confused.[12]In another similar study, students reported they saw great potential for HFS, and while they did value their short simulation experience, they felt the simulator could be better used to give them experience with more variability and unpredictability in scenarios; they reported greatest comfort level with computer technology in general. They envisioned additional learning opportunities with expanded roles and greater complexity in the scenarios. [11] This shows that they had different experiences they faced. The participants in this study were talking about the shortage and malfunction of materials. Whereas, the participants in the literature were talked about unfamiliarity with HFS, uncertain to manage the simulators, and some expressed about scary face of simman. And the other talked about additional computer technology and greatest comfort in the scenario.

In the educator's challenge, teachers felt challenged to help students during the scenario. This described by one teacher to how some students seem to think when they lose fluency and become stalled during the scenario. It is believed for the teachers that some students had more hindrance overcoming being observed, than others.[12] But in the current study, the teacher faced different experience, which is relating to skill deficiency, material shortage and room availability problem. They don't have a chance to be observed alone.

Limitation of the Study

The constraints of that limited to study only on the SPHMMC and some of the factors that hinder to wrote this research was the following:

- Lack of available materials and references in Ethiopia which were relevant to this study
- Time constraint
- Financial constraints
- The result of the study was not generalized to the general population due to small sample size.

Conclusion

Almost all participants have positive perception about SBL as it helps the students to have skill for different procedure and manipulating some medical equipment's and machine, build confidence and to become competent before they go to real clinical area. But they don't have a chance to use this modality properly because of less attention given by the administration, (organizational and department), poor time management from the department as well as educators. Less use of the strategy (SBL) by most educators because of different cause, (free room for nurses, shortage of materials) non- skilled educators and shortage of materials and room which is prepare for nurses.

I would like to recommend for the administrative to work on program evaluation, improving quality of educators by different short training. Additionally, nursing department should also work hard on evaluating teaching process, improving communication with students and introducing additional study regarding to their educational strategy specially SBL and application of the curriculum.

Annex one

References

1. Carol.A. Raun (2004). Simulation as a teaching strategy for nursing education and orientation in cardiac surgery. The Journal for High Acuity, Progressive and Critical Care Nursing.24. (3)46-51.
2. Gharaiber, Beshir & Hweidi, Issa & Smadi, Ahmed. (2017). Attitudes and perceptions of Baccalaureat nursing students towards educational simulation:4.101080/2331186*2017.1360063.
3. Kim, JH Park, S Shim. (2016). Effectiveness of simulation-based nursing education depending on fidelity: a meta-analysis BMC Med Educ 16, 152.
4. Nye, C., Campbell, S. H., Hebert, S. H., Short, C., & Thomas, M. (2019, January). Simulation in Advanced Practice Nursing Programs: A north-American survey. Clinical Simulation in Nursing, 26(C), 3-10.
5. Aebersold M, Tschannen D. (2013) Simulation in nursing practice: the impact on patient care OJIN: The Online Journal of Issues in Nursing, 18(2) manuscript 6.
6. Eyicara, E.& Baykara, G., Z. (2017). The importance of simulation in nursing education: World Journal on Educational thechnology.9(1),02-7.
7. Sevgisun Kapuku (2017). The Effects of Using Simulation in Nursing Education: International Journal of Caring Science.10.2/1069.
8. NLN (2015a). (A vision for teaching with simulation a living document from the national league for nursing NLN board of governors, 2015.)
9. Jill Flo, Elisabeth K. Flaathen, Lisbeth Fagerstrom (2013). Simulation as a learning method in nursing education - A case study of Students' learning experiences during use of computer -driven patient simulators in preclinical studies: Journal of Nursing Education and Practice.3(8)138.

10. Stein, D. (1998) situated learning in adult education. http://www.ericdigests.org/1998-3/adult-education.html

11. Landeen, Janet & Pierazzo, Joanna & Akhtar-Danesh, Noori & Baxter, Pamela & van Eijk, Sylvia & Evers, Courtney. (2015). Exploring student and faculty perceptions of clinical simulation: a Q-sort study. Journal of Nursing Education. 54. 485-91. 10.

12. MarieHäggström1, Bäckström, Britt & Vestling, Irene & Hallin, Karin & Segevall, Cecilia & Kristiansen, Lisbeth. (2017). Overcoming Reluctance towards High Fidelity Simulation – A Mutual Challenge for Nursing Students' and Faculty Teachers. Global Journal of Health Science. 9. (7) 127. 10.5539/gjhs. v97p127.

13. Nye, C., Campbell, S. H., Hebert, S. H., Short, C., & Thomas, M. (2019, January). Simulation in Advanced Practice Nursing Programs: A north-American survey. Clinical Simulation in Nursing, 26(C), 3-10.

14. J. vermeulen, et al. (2017) The Experience of Last year student Midwives with HF Perinatal Simulation Training: A qualitative Descriptive Study, Woman and Birth 30(3),253-261.

15. Young Sook Roh, kie (2017). Survey of factors influencing learner engagement with simulation debriefing among nursing students. Jang Nursing and Health Science 19 (4), 485-491.

16. Xulin zhang,MAN,RN; Rosemary W. Eustace, Violeta Lopez (2017) Exploratory Factor Analysis of the Attitude Towards Simulation-based Learning. Journal of Nursing Education 56 (8), 471-476.

Annex two

Questions

1. How would do you find simulation-based learning/teaching?

2. How has simulation-based learning been used in your training?

3. How effective do you think simulation-based activities have been for your learning/teaching? Please tell us your experience?

4. Have you had challenges during your simulation-based learning/teaching? Please give some examples that you experienced.

5. How has simulation-based learning helped you prepare for nursing practice? Is it an important part of the curriculum-why or why not?

6. Would you consider changing anything about the simulation activity? If so why? If not why not?

a) Any about the room set up??

b) About the materials?

c) About the personnel?

7. What other points would you like to make about your experiences with simulation-based learning/teaching?