

Clinical Learning Experiences of Postgraduate Nursing Students in The Operating Room Units at State Hospitals

Research Article

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Abstract

Introduction: Operating room is a dynamic and complicated area where the safety of patients undergoing surgery requires great priority. Clinical learning is an important aspect of nursing education because nursing is a practice profession. Challenges within the clinical environment that hamper the effectiveness of clinical learning and the attainment of clinical competence have to be identified in order to proffer solutions. The objective of the study is to explore clinical learning experiences of the postgraduate nursing students in the operating room units at the state hospitals in Khomas region, Namibia.

Methods: A qualitative, exploratory, descriptive and contextual study designs was used with purposive sampling. Saturation of data was achieved at 9 postgraduate operating room nursing students participated in the study. Data was collected through in-depth interviews using an interview guide. Data collected was analysed using thematic analysis.

Results: Three main themes emerged during the discussions which are interpersonal factors, educational factors and operating room context. Students had negative experiences like working with rude nurses, being shouted at, fear and panic due to first time exposure, shortage of equipment and being overworked.

Conclusion: It can be concluded that students had positive learning experiences, they have been exposed to a wide range of surgical procedures, advanced technology and instruments that they never seen before. Students further had negative experiences such as shortage of instruments and supplies in theatre resulting in cancellation and postponement of procedures which led to students missing out on experiencing some of the rare procedure and delaying completion of their logbook. Students were overworked by nurses and unit managers to cover up their shortage of staffing not considering that postgraduate students were there in the capacity of a student not registered nurse they have to learn.

Keywords: Clinical Learning Environment; Experience; Postgraduate Nursing Student; Operating Room Units

Keypoints: Operating room is a dynamic and complicated area where the safety of patients undergoing surgery requires great priority

- Guidance and help from the clinical educator and other experienced staff help the new perioperative nurse pull it all together.
- Clinical learning environment is considered important as it is in this context that health profession students apply theoretical knowledge to practice, acquire clinical skills and develop problem solving and clinical reasoning skills.

Introduction

When a surgical procedure is required the patient's care will be initiated by the operating room staff or surgical team. Perioperative nursing is the care provided to patients before, during and after surgical and invasive procedures [1]. According to Sellberg, Palmgren and Moller, (2021) the clinical learning environment refers to the clinical workplace in which health professions students complete their clinical placements as part of their education. Clinical learning environment is considered important as it is in this context that health profession students apply theoretical knowledge to practice, acquire clinical skills

and develop problem solving and clinical reasoning skills [2]. Mc Lead, [3] states that clinical based learning is used in various levels including undergraduate education in the professions, graduate education and postgraduate education and the field that uses clinical based learning for all levels is surgery. A learner in the perioperative environment may be a medical, nursing, or surgical technology student enrolled in a formal education program, and they learn some of the basic principles of surgical technology and sterile technique to ensure the safety and welfare of patients [4]. Nursing education involves provision of practi-



cal training with the purpose to prepare students for future duties as nursing care professionals [5]. University of Namibia offers a Postgraduate Diploma in Nursing Specialisation; Operating Room, it is considered as an advanced education program designed to provide a consistent approach in the support of new perioperative nurses as they develop new knowledge and skills. The program run for 1 academic year. Surgical interventions require groups of professionals to work together as a team, it is therefore emphasized that professional practice enhancement be a priority in the operating rooms of public and private hospitals in Namibia.

Objectives

The objective of the study was to explore clinical learning experiences of postgraduate nursing students in operating room units at the state hospitals in Khomas region, Namibia.

Methods

A qualitative, exploratory, descriptive and contextual research design was used to explore clinical learning experiences of postgraduate students in operating room units at state hospitals in Khomas region, Namibia. Purposive sampling was used to collect data from the operating room students because of the small population of 18 students. All 18 postgraduate students had equal chance of the participating in the study however sample size was determined by saturation of data. Data was collected from 01 August to 31 September 2023.

Data Collection

The researcher developed an interview guide in English with one central question; *What are your clinical learning experiences in operating room units at state hospitals in Khomas region?*. Interviews were conducted immediately after receiving the ethical approval from University of Namibia, School of Nursing and Public Health and after obtaining written consents from participants. The

researcher chose a room M10 in UNAM main campus because it was lockable to ensure that participants were comfortable, and no harm would come to them. Interviews took 10 to 15 mins on each participant and interviews were recorded and transcript after the interviews.

Ethical Considerations

There are fundamental ethical principles which guide researchers: respect for persons, beneficence and justice. These principles are based on human rights that need to be protected in research. Permission to conduct a study was obtained from University of Namibia, School of Nursing and Public Health Department, ethical number 20/2023 and a written consent was obtained from the study participants prior to data collection.

Presentation of the Study Results

Findings

Results discussed in this chapter are based on the findings of the interviews conducted on the 7 postgraduate operating room students that came from data saturation, among them there were 1 male and 6 females, and their age ranged from 28 to 34 years old as in Table 1.

Themes

Interviews were conducted on operating room nursing students until data saturation was reached, data was recorded and later transcript for analysis. After thorough analysis three themes emerged with two corresponding subthemes under each theme. Themes and subthemes are discussed in detail with supporting literature after a brief summary. In the discussion participants are coded as P1 to P7 and responses from participants are quoted in italics. The table below shows the summary of themes and the corresponding subthemes Table 2.

Table 1: Characteristics of study participants.

Code	Age	Gender
P1	31	Female
P2	28	Female
P3	34	Male
P4	34	Female
P5	29	Female
P6	34	Female
P7	28	Female

Table 2: Summary of themes and sub-themes.

Themes	Sub-Themes
4.4.1 Interpersonal factors	4.4.1.1 Rude nurses
	4.4.1.2 Poor communication
4.4.2 Educational factors	4.4.2.1 Positive learning experience
	4.4.2.2 Bad learning experience
4.4.3 Operating room context	4.4.3.1 Shortage of equipment
	4.4.3.2 Overworked



Theme 1: Interpersonal Factors

Interpersonal factors are elements that influence and shape relationships with others. These factors play a significant role in how people interact, communicate and establish connections with individuals in one's personal and professional lives. Participants mentioned that some nurses were rude to them and were not talking to them in a good manner. According to Phillips (2017) learners in the perioperative environment are adults and perform better if given due respect whether experienced or novice, treating learners in a pedagogic manner is counterproductive and becomes a barrier to learning. Rude nurses and poor communication were identified as subthemes from the interpersonal factors.

Subtheme: Rude nurses: Operating room is a high stress environment where teamwork and effective communication are crucial. When nurses behave rudely towards postgraduate nursing students it can create a hostile learning environment and negatively affect their overall experience. Rude nurses can undermine the confidence of nursing students by being disrespectful, belittling or dismissive this can make students doubt their abilities and hinder their professional growth [4]. Some students work in the regions where some specialised procedures are not done so they see them for the first time during their clinical rotations so first days are not easy because nurses judge them for not being able to do some of the things since they are registered nurses as well ignoring the fact that it is their first exposure. Participants stated that nurses were mocking and gossiping about them, as shown below:

"I can say the senior nurses maybe because I'm from the small hospital that we are only used to doing one procedure caesarean section so it was like my knowledge in theatre was somehow not really good so yes the seniors those who have been working in this hospital were now in the corners gossiping, laughing that some sisters you cannot even say they were working in the theatre before people don't know how to do things" (P4).

Subtheme: Poor communication: Effective communication is essential in operating room to ensure patient safety and quality care. Clear communication channels are necessary to provide guidance, support and feedback to students, fostering their confidence and competence in the operating room. In an environment where communication is lacking nursing students may feel anxious, stressed or uncertain about their roles and responsibilities. Participants revealed that they experienced nurses and surgeons shouting at them when they were not doing things right. Phillips (2017) supports this by stating that some preceptors and surgeons may bully the students and become impatient because of the student's inexperience. Participants said:

"Some nurses they have communication issues they don't know how to talk to students as they can shout but you find a few that understand the life of a student, they take you through and take your hand guide you as you are supposed to be guided as a student" (P6).

Theme 2: Educational Factors

Operating room units provide a rich learning environment where students can develop and refine their skills in perioperative nursing care by offering valuable hands-on clinical experience to postgraduate nursing students. They can observe and participate in various surgical procedures including preoperative and postoperative care. Operating room also provide an excellent setting for postgraduate nursing students to collaborate with other healthcare professionals such as surgeons, anaesthesiologists and surgical technologists. Participants were impressed with their clinical exposure and experiences for educational purposes, they also expressed to have encountered some challenges. Positive learning experiences and bad learning experiences were identified.

Subtheme: Positive learning experience: Positive learning experiences of postgraduate nursing students in the operating room

units can be highly valuable and contribute to their professional growth. According to Amo, [6] in one study participants described their clinical learning as effective because it improved their clinical skills, built their confidence and improved their clinical thinking skill. The operating room provides an opportunity for postgraduate nursing students to witness and participate in various surgical procedures, this exposure allows them to gain a comprehensive understanding of different surgical specialities, techniques and interventions. These is what participants narrated on positive learning experiences:

"I would say mostly on the big cases like neurosurgery, the vascular surgery. Most of the orthopaedics we don't really have them in the region and also in the region most of cases like general surgery we do open surgery. But coming here to the city, the big hospital they are doing laparoscopic, so it was a culture shock for some of us because the area we are used to open surgery" (P1).

Subtheme-Negative learning experiences: While postgraduate nursing students in operating room units generally have valuable learning experiences there can be instances where they encounter challenges or negative situations. Especially students who come from regional hospitals they find it challenging to adjust to big hospitals theatre culture. Nursing student entering the operating room for the first time often finds it an intimidating environment [7]. Operating room can be a fast-paced and high-pressure environment students may feel overwhelmed by the intensity of the work, the constraints and the need to adapt quickly. Participants said:

"Yes it was quite a challenge I can say because you know there we only used to do one procedure and coming here the procedures that we started doing here are the ones that I have never seen performed or even heard the name so coming in like you have to scrub lets say for a vascular surgery. First of all you even be there cornering yourself, asking yourself yooh what is vascular surgery and then you have to play now a role of a scrubbing nurse whereby you prepare, arrange the instruments like you don't even know what instrument to be used so you just be there scared" (P4).

Theme 3: Operating Room Context

Operating room is a crucial setting in clinical learning for postgraduate nursing students particularly those specializing in perioperative nursing or surgical nursing. It provides an immersive environment where students can observe and actively participate in surgical procedures, gaining valuable hands-on experience and developing essential skills. Participants showed concerns with shortages of equipment and supplies in the stated hospitals and being expected to fill the shortage of staffing during their clinical rotations. Two subthemes emerged under operating room context theme and these are shortage of equipment and supplies and overworked.

Subtheme: Shortage of Equipment and Supplies: Medical equipment is an essential health intervention tool used by healthcare providers for prevention, diagnosis, treatment of diseases and rehabilitation of students [4]. Shortage of equipment and supplies in operating room units can have a significant impact on clinical learning experiences. Equipment shortages can lead to delays or cancellations of scheduled surgeries and this can disrupt the clinical learning schedule resulting in missed learning opportunities for students who were scheduled to observe or participate in those procedures. Participants mentioned these about shortage of equipment and supplies:

"In the state its quite good to work there but the problem is that they have a shortage in equipment and the stock that they are supposed to be using in the operating room. There are people that are booked on the list sometimes they, they end up being cancelled" (P6).

Subtheme: Overworked: Operating room personnel expect students to function as experienced members of operating room team while students might have the perception of being useless and



feeling out of place [7]. The following participants mentioned that:

“Some nurses they have I don't care manner whereby they don't really consider you as a student when they see you they require you to work independently while you are supposed to be supervised as a student” (P6).

Nursing students often do not know what is expected of or how to do the work, global and local shortages of operating room nurses put student nurses under even more pressure [7]. Overworked students may have limited exposure to a variety of learning opportunities in the operating room. Students are assigned respective or routine tasks rather than being able to participate in more complex procedures or observe rare cases. One participant said.

Discussion

Theme 1: Interpersonal Factors

According to Jacob et al., [8] participants in their study reported that they face unfriendly learning environments such uncooperative staff using harsh language to students. Students explained that being shouted at or discouraging words make them feel bad as human beings, they elaborated more that it may be true that they are not competent but that's not supposed to be the reason because they lose confidence to practice [8]. During clinical rotations participants mentioned to have encountered working with rude nurses or nurses who acted rudely towards them. Nurses were gossiping and mocking student who were not competent enough due to their background experience. Some students are working in region hospitals where they are restricted to certain procedures and them coming to state hospitals in Windhoek was a struggle because they were learning about things they have never done before so their competence was not good, so the nurses were mocking them that the way they are fumbling it's not like they are registered nurses who are based in theatres not taking into consideration their backgrounds. This led to poor communication like shouting at students when they were not doing things right. Nurses and surgeons were not patient and considerate and there were shouting incidences instead of correcting them in a calm manner. Lack of prerequisite practical knowledge slows down the teaching-learning process and leads to formation of conflict between the instructor and the student [9].

Theme 2: Educational Factors

Participants expressed to have experienced positive learning exposure by being exposed to a lot of surgical procedures that they have never done or witnessed before. They also got the opportunity to learn a lot about the operating room context such as infection control, patient safety, instruments and equipment, collaborating with different surgical team members. Motsaanaka, Makhene and Ally, [10] reports that participants from their study, reported knowledge sharing with and from various healthcare disciplines as a positive experience as it exposed them to varied clinical learning opportunities. Participants also showed to be impressed with the clinical learning because they were able to integrate what they learnt in theory into practice, and it helped them to correct the mistakes that they have been doing over the years to ensure proper provision of quality surgical care to patients.

Negative experiences were also identified from participants, exposure to a wide range of surgical procedures, advanced equipment and instruments, brought fear and panic on some students because of their background. Nursing student entering the operating room for the first time often finds it an intimidating environment [7]. Student's lack of knowledge and skill and inadequate preparation for entering the clinical environment disturb their learning processes and make them anxious [11]. Phillips (2017) adds that the learner can become resentful and unable to separate feelings of inexperience from feelings of inadequacy Students who are working in the regions were having hard time with adjusting to bigger hospitals it made

them feel incompetent since they could not do most of the things due to seeing them for the first time. Participants are also having hard time with finding procedures for their logbook because some cases are rare therefore it is affecting their progress with logbook.

Theme 3: Operating Room Context

Learning needs of the students are not adequately met at the clinical area due to shortage of equipment and supply [12]. Jacob et al., (2023) revealed that main challenges raised by their participants were the inadequate medical supplies both equipment and material like gloves. In this study participants mentioned a challenge of shortage of equipment and supplies in the state hospital as serious. It affects their learning experience because most cases are being cancelled due to lack of equipment for certain procedures and they are missing out on experiencing some rare procedures and working on their logbooks. They are also not able to practice what they learnt in theory because of lack of supplies and equipment, they end up improvising and doing shortcuts which is something that they want to avoid and do the right thing of correcting their mistakes so their chance of learning the right thing is disrupted.

Students are also faced with a challenge of being used to fill in for shortage of staff in operating units. According to Moghaddam, Aghamohammadi, Jafari, Absalan and Nasiri [13] states that nurse's 'abuses of students' presence in departments and putting their work on the shoulders of students were among the challenges of student's learning in the study they carried out. Unit managers and nurses overwork postgraduate students by allocating them to their preferred theatres to cover their shortage not considering that they are there to work as students not as registered nurse so that they can learn. These affect students because they lack behind on their logbooks and they miss out on experiencing some procedures especially rare cases. It also affects students because students get tired and will not concentrate on their practical. Motsaanaka et al., (2020) agrees that student nurses are used as extra pair of hands leading to minimal exposure to learning experience thus causing frustration amongst nursing students.

Conclusion

The study also revealed that students have positive learning experiences, they have been exposed to a wide range of surgical procedures, advanced technology and instruments that they never seen before. They learn a lot about operating room context which will help them to correct their mistakes after completion of their studies. Students also encounter bad experiences like fear and panic which make them feel incompetent due to culture shock of being exposed to big hospital theatres and how things are done which is totally different from regions, so it is a challenge to adjust to the environment. Rare procedures are also a challenge that students encounter because it delays their progress with completing the logbook as well as experiencing and learning about some cases or procedures. Shortage of instruments and supplies in theatre has resulted in cancellation and postponement of procedures which led to students missing out on experiencing some of the rare procedure and delaying completion of their logbook. Students are also overworked by nurses and unit managers to cover up their shortage of staffing not considering that postgraduate students are there in the capacity of a student not registered nurse they have to learn.

Author Contribution

- A. Joseph Galukeni Kadhila was responsible for supervision and drafting of the manuscript. University of Namibia
- B. Nthabiseng Precious Jimson was responsible for drafting of the manuscript and data collection. University of Namibia.

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Data Availability

Data is available on request from the corresponding author Mr Joseph Galukeni Kadhila, University of Namibia.

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Relevance for Clinical Practice

Shortage of instruments and supplies in theatre has resulted in cancellation and postponement of procedures which led to students missing out on experiencing some of the rare procedure and delaying completion of their logbook. Postgraduate nursing students encounter working with some nurses who act rude towards them by mocking and gossiping about how they do things instead of helping them.

Conflict of Interest

The authors declared no conflict of interest.

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