

The Operating Room Experiences of Nursing Students: A Focus Group Study

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Purpose: *The purpose of this study was to evaluate operating room (OR) experiences of student nurses.*

Design: *The focus group interview from qualitative research methods was used.*

Methods: *This study was carried out between February and March 2011 in an OR practice at a university school of nursing. The grounded theory method was used to collect and analyze semistructured interview. Interviews were held with a total of 26 students in three focus group interviews. Each interview was tape recorded and was supported by taking notes. The audiotapes were listened and relistened by the researchers and transcribed.*

Findings: *Four themes were determined as a result of this study. These are information, determination of career preference, period of internship and/or rotation, and fear and/or anxiety.*

Conclusions: *The students stated that the period of OR practice was insufficient, the opportunities for being able to implement were limited, they mostly observed, and they experienced feelings of being alone and fear in the OR. Despite all of these, the students stated that the OR practice provided a major contribution to their education and was effective in the determination of their career preferences after graduation.*

Keywords: *nursing student, nursing education, clinical practice, operating room, focus groups.*

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NURSING EDUCATION INCLUDES the theoretical knowledge and clinical practices designed to assist students gain skills required for the nursing profession. Clinical practice in nursing education provides putting theoretical knowledge into practice, gaining professional identity, and learning by practice.¹⁻⁵ The goal of nursing education is to equip nursing students with the knowledge and skills they need to practice safely and effectively.⁶ Clinical practice is a vital component of the nursing curriculum^{4,7} and has been acknowledged as being central to nursing education.⁷

Researchers have argued that the perioperative environment is an important area for educating nursing students.⁸ It is expected that student nurses participate in patient care at the surgical

clinics and operating rooms (ORs). The OR experience provides the opportunity of implementing theoretical knowledge about the subjects of patient care, such as aseptic techniques, skin preparation, patient positioning, infection control, informed consent, and balance of heat and liquids.⁹

Nursing curriculum should be directed toward improvement of clinical competencies of nursing students.^{7,10} Opinions of the lecturers, nurse managers, clinical nurses, and also student nurses have an important role in the achievement of successful curriculum planning.¹¹ According to the literature, researchers have suggested that positive perioperative clinical experience at the undergraduate level has a significant impact on perioperative recruitment.^{12,13} However, specific perioperative theoretical and clinical experience for most undergraduate degrees is limited. To develop positive, effective perioperative experiences for undergraduate students, their experiences need to be explored.^{8,12,13}

The researchers did not encounter any studies related to Turkish student nurses' opinions about OR practices. The aim of this study was to determine the experiences and opinions of nursing students about OR practice. The purpose of this study was to evaluate OR experiences of student nurses.

Methods

A qualitative approach using the grounded theory method was used to collect and analyze semistructured interviews. Interviews were held with a total of 26 students in three focus groups.¹⁴ With focus groups, self disclosure is emphasized to assist participants as a collective to explore and clarify perspectives on a subject with which they are familiar, that may not be possible using other approaches.¹⁴ The objective of this qualitative study was to evaluate OR experiences of student nurses.

The population of the study was composed of the 4th year intern students participating in an OR practice at a nursing school. The students underwent their OR practice in one of the orthopaedics, urology, or general surgery ORs in a university hospital. This hospital has no preoperative holding area. The patients are admitted to the ward before surgery for preoperative preparations. Then, they are sent to the OR. There are no post anesthesia

care units in this hospital which is why the patients are monitored in intensive care units until their physiological statuses are stable after surgery. Then, patients are sent to wards from the intensive care units. The students do their internship practices 3 weeks in ward units, a week in the OR, and a week in intensive care units. A faculty member, staff member, and a clinical nurse are responsible for the training of the students during the practices. Convenience sampling was applied as the sampling method. In light of the sampling method determined, groups were formed that included students who voluntarily accepted to participate in the study and who were in internships at different ORs within the scope of the surgical diseases nursing course at a nursing school.

Ethical Considerations

Written permission to conduct the research was obtained from the ethics committee of the nursing school as well as from the nursing school directorate where the study was carried out. The purpose and methodological details of the study were explained to the student nurses, and written consent was provided by all participants.

Data Collection

The data in this study were collected between February and March 2011 after students completed the surgical diseases nursing internship. The interviews were conducted in a private area. The researchers were not in charge of students during data collection to avoid bias.

The data were collected by using the semistructured interview form developed by the researchers. The students were asked the following questions:

1. What did you see in the OR?
2. If I had been with you in the OR what would I have seen you doing?
3. What do you think about the contribution to your education from the aspect of activity and productivity of the OR practices?
4. What did you feel during the OR practices?

A natural interview environment was formed under the guidance of the open-ended questions stated previously. The interviews were recorded by taking notes and using a tape recorder. One of the researchers conducted the interviews,

and the others participated by taking notes and as observers. Each focus group lasted from 60 to 90 minutes.

Data Analysis

Before data analysis, all recordings were transcribed verbatim. Corrections were not made in the conversations when writing down the sound recordings. All researchers read and re-read the entire transcribed independently several times to ensure a sense of meaning to the data that were collected. The researchers focused on reflection of the meaning of the students' expressions. The self expressions of participants reflected their OR experiences. Similar meaning units were grouped into themes.

Findings

All of the students were females and between 22 and 25 years of age. The qualitative analysis led to the emergence of the four themes from the focus group data. From the student's opinion,

"information," "determination of career preference," "period of internship and/or rotation,"

and

"fear and/or anxiety"

were considered to be important factors in this clinical experience.

Theme 1: Information

Almost all of the intern students stated that they mostly observed during the OR practice, the opportunities for practice were insufficient, and they needed more mentorship from OR nurses about information related to the surgical procedure, OR environment, and nursing care. A student explained this situation by saying,

"Justifiably, since the nurses had work to do throughout the operation and they could not explain anything to us and could not take an interest in us. We were only looking."

All of the students stated that when the OR practice started, they wanted to be given information on the practices made in the OR, on

the matters that should be paid attention to, and on the operations performed. A student expressed the need for information during the practice as follows:

"Such a thing could occur, for instance, there is a percutaneous nephrolithotripsy (PNL) operation. If they made an explanation beforehand, such as PNL is like this and this is done, when you know this, then watching it is different. However, we enter the room and when we ask the nurse something, the nurse is both working and answering me. It is somewhat difficult from this aspect and it is explained at the last minute. I wish that information would be given beforehand and then we would watch the operation. I think that it would be more pertinent."

In contrast, a student told about a problem experienced because of not being given information,

"There was scopy equipment in the OR and it was used a few times while I was there. I did not know that scopy has harmful effects on my health. They could have given me information beforehand."

Some students stated that the team behaved very well toward them during internship, that they gave them information about the interventions made, and in this manner, the practice was more productive. One student said,

"There was an amputation case. The surgeon explained every practice made. Now we cut the tendon, the Achilles tendon. It was so enjoyable that I really learned the course by seeing it. It was like a live practice of an anatomy course."

The excitement and happiness experienced by the student was understood. In a similar manner, a student explained by saying,

"When the team is good, it passes much better. That is, they explained everything. I think it was very productive."

Another student stated feelings in this manner,

"I worked together with a nurse, who was an excellent nurse, for four days. Whatever process was being done at that time, everything was explained. The next day I did the

preparation for the operation in the manner described to me. I was very pleased because I was encouraged in this manner."

Theme 2: Determination of Career Preference

A majority of the students stated that the OR was a special place and that the OR made them feel special. During the OR internship, they stated that they determined whether engaging in nursing in this field was suitable and that the internship affected their career preferences very much. It was determined that some of the students who wanted to be a perioperative nurse in their professional vocational life abandoned this and those who did not think to engage in nursing decided to work as a perioperative nurse.

A student who decided to work in the OR explained by saying,

"The OR is an enjoyable environment, perioperative nursing was my target when I first learned that I had been accepted to study nursing. My idea became firmer when I entered a case as scrub nurse."

Another student explained a changing decision as follows,

"I will become a nurse, I am in the 4th year, but I still cannot remain at the hospital. However, after leaving the OR I decided to become a perioperative nurse. Moreover, I also sent a message to my friend. If I can work as a perioperative nurse, then I will be a nurse. I can only work there."

Students who decided to become a perioperative nurse stated that the most important component, which affected making this decision, was the team communication in the OR. One student explained the reason for the decision as follows,

"The OR team is excellent. Nurses are more independent compared to the departments. We had a chance to observe or practice all nursing interventions that our lecturers taught us in theoretical courses. In some practice areas we have a limited chance to pass along all theoretical knowledge to

practice. There is really a team activity, doctor, nurse, personnel; all of them are really a team there. Consequently, it is much more fulfilling for nurses. It is this that has provided the most for my decision to work there."

On contrary, some students stated that they experienced hesitations on the subject of working in the OR and on being a perioperative nurse. A student who entered a case sterilely together with a nurse expressed the indecisiveness in the following manner,

"If the nurse had not been sterile and if only I had been here, if I had remained to assist the doctor, I think would I be able to do this job? In my opinion, it is a major responsibility. There is definitely no margin for error. I wavered a lot between whether or not to do it and I am still not sure."

Some of the students stated that they had decided that they could not be perioperative nurses at the end of the practice. One student said,

"I decided that I could not become a perioperative nurse, because there are operations that even last for 8 hours. The instrument nurse is continuously in the same position and continuously does the same things. I probably could not do it. I should be more active."

Whereas, another student stated that she could not work as a perioperative nurse in this manner,

"I could not work as an instrument nurse, because just as the life of the patients is up to the doctor, it is also up to the nurse. You are forced to grasp that speed. You are forced to make a sudden decision of what you will do at that moment. I could not work in a state of panic in this manner."

Theme 3: Duration of Internship and Rotation

The students within the scope of the study were in the OR practice for an average of 4.05 ± 1.12 days (minimum: 2 days, maximum: 8 days). A majority of the students stated that the period for the OR practice was insufficient, that it would be necessary for them to remain in an OR environment for a longer period for a

good training, and because of the fact that the period was insufficient, they mainly made observations in the OR environment and the practices remained insufficient. One student,

"The period of 4 days is insufficient, it could be extended somewhat more, because there is no other place to learn this. We engage in treatment in all the clinics, we are taking the life findings, but for here, for surgery, the OR is very important in my opinion." In a similar manner, another student expressed the insufficiency of the period in the following manner, "One week is definitely too little. Perhaps the surgery internship means the OR. I studied nursing for 4 years and went to the OR for 4 days."

All of the students stated that practicing in the department for a certain period of time, then taking part in the internship at the OR and subsequently continuing the internship at the department once again would positively affect their education and would increase their awarenesses of the practices they made. A student, who started the surgical internship directly in the OR without going to the department, explained the experience in the following manner,

"I returned from my summer holiday. I went to my OR internship the first week. To start the internship in the OR after my holiday surprised me very much. In my opinion, we should first of all go to the department. At least you will know the cases in the clinic and you will say this is that operation. To go directly to the OR without seeing the clinic was a difficult process for me. Our internship should be started first of all in the department. Subsequently, we should go to the OR and later we should be in the department once again, because the awareness would be better."

Theme 4: Fear and Anxiety

The students stated that they experienced fear and anxiety during the OR internship. The fear and anxiety experienced by the students appeared to be connected to two different situations, which were experienced because of what was felt connected to the unknown and their feeling of empathy for the patients. A student explained

with the following the fear felt for the unknown in the OR,

"I was very apprehensive when I first went to the OR. I was shaking all over about how it would be, because I did not know the OR environment and I did not know how I should behave."

Another student stated,

"Actually, I was excited when I first started; it was a place that I was always curious about. But there was always an obscurity of how would it be? There was the fear of would I be able to do it? When I started to enter operations, I began to like it. The things that you think at first about can I do this, you see that you could do."

In a similar manner, a student stated that after seeing the OR environment the fear passed,

"In time, I felt that those types of feelings, such as nausea, disgust and fear, etc. no longer remained. There was an amputation operation and the leg was being cut. It had the image like a horror movie, but I watched in a calm manner without feeling anything."

One reason for the students to be afraid in the OR environment stemmed from feelings of empathy for the patients. One student expressed fear by saying,

"I felt anxiety and fear; they were opening it, they were continuously hitting the bone with hammers, with something and bone was spurting everywhere. I felt fear. I could have been there. I can say that I especially prayed not to see an amputation operation."

Discussion

Theme 1: Information

It was determined that the intern students mostly observed during the OR internship and that the opportunities for making practices were insufficient. A limited observational experience in the OR is all the perioperative exposure that many nursing students receive, so students are not able to practice their skills and often do not get an adequate understanding of the role of the perioperative nurse.¹⁵ In addition to the student nurses observing the surgical procedure, which is the

focus point of the OR experiences, they should learn and implement the roles of the circulating nurse.¹⁶ In ORs, teaching is difficult. Patient safety must remain the paramount concern for all personnel, and in this regard, teaching takes a secondary role even at “teaching” hospitals.¹⁷ The necessity of supporting the student in the clinic and the importance of providing opportunities that would strengthen the learning activities are emphasized in the literature.^{4,15,18}

The students stated that they felt alone in the OR environment—that when information was given about the procedures made, the practice was more productive. The efficiency of clinical education is affected by many factors, such as physical environment, teaching staff, clinical nurses, and other members of the health team.^{1,3} Previous research has found that from the student’s perspective, factors related to the surgical attending, including serving as a positive role model, providing a friendly tone in the OR, direct interaction with staff, and teaching of the students, are the factors most influential for the student’s learning experience in the OR.^{19,20} Direct interaction with doctors and nurses is necessary for a participative and instructive learning experience.^{19,20} Similarly, Elcigil and Sari⁷ found that a good relationship between staff and students has a considerable effect on learning, and the feeling of being an important member of the team increases motivation to learn. Students reported that their relationships with unit staff and the attitude of staff towards students were the most two important factors that affected clinical learning. They expressed the opinion that they were more motivated and eager to attend clinics when they felt that they were a part of the health-care team.

On the subject of the students being able to do the practices that are necessary to learn in the OR internship, it can be said that creating opportunities, giving information, and providing for them to perceive that they are a member of a team will positively affect their learning.

Theme 2: Determination of Career Preference

In the study, it was observed that the OR experiences influenced to the students on being a peri-

operative nurse in their professional vocational lives. It was determined that during the OR internship, the students thought whether engaging in nursing in this field would be suitable and in accordance with this, the internship affected the vocational preferences. According to the literature, the clinical practices in nursing education contribute to the development of the decision-making skills and vocational identity of the students,²¹ and perioperative nurses can play an important role in a nursing student’s career choice.²² The purpose of the perioperative education program is to increase nursing student’s exposure to perioperative nursing practice and to promote student interest in perioperative nursing as a career choice.¹⁵ Silen-Lipponen²³ stated that when a sufficient process of consultancy and the opportunity for acceptance in a team atmosphere were provided during the period of being a student, the desire to work as a perioperative nurse increased after graduation. In all specialties, mentorship is one of the strongest influences on a student’s career choice; conversely, negative role models can deter students from pursuing specific careers.¹⁹ In a study made by Ünsal et al,²⁴ it was determined that when students saw one to one the difficulties of perioperative nursing, their interests for perioperative nursing decreased significantly. In accordance with these results, it can be stated that the OR experiences of the students affected their career preferences either positively or negatively.

Theme 3: Period of Internship/Rotation

A majority of the students stated that the period for the OR practice was insufficient, that they mostly made observations in the OR environment because of the period being insufficient, and that it was necessary for them to remain in an OR environment for a longer period for a better education. Ricketts and Gray²⁵ stated that the interaction of the students with the nurse in the OR was limited, that when the patient was in the OR, the nurses focused directly on the patients, and consequently, they were able to give very little time and attention to the students, and that no opportunity at all was given to the students for using their nursing skills. Opportunities can be provided that would strengthen the learning activities of the students with a sufficient period of practice.^{15,18}

Theme 4: Fear and Anxiety

It was determined that the students experience fear and anxiety during the OR internship. The fear and anxiety experienced by the students were connected to two different situations: fear of the unknown and empathy with the patients. During clinical learning, nursing students frequently feel anxious and even vulnerable in the clinical environment.⁷ Lack of clinical experience, unfamiliar areas, difficult patients, fear of making mistakes, and evaluation by faculty members were expressed by the students as anxiety-producing situations in their initial clinical experience.⁴

Sharif and Masoumi⁴ determined that students experienced anxiety at the first ventures in a field of practice that they did not know and as the education and experience of the students increased, their stresses decreased. On contrary, because ORs are very different places than the other clinics, it is known that they increase the level of anxiety of students.^{25,26} Nevertheless, when sufficient information is not given, the level of anxiety of students increase, and this negatively affects learning.^{25,26} It is necessary to hold clinical orientation programs for reducing the fear and anxiety of students to lower levels. A successful learning can be provided primarily by students getting to know the environment and feeling

themselves comfortable in this environment, by getting to know the team members and feeling themselves as a part of the team.

Conclusions

In this study, it was observed that the students mostly made observations in the OR environment. The period of practice in the OR was insufficient. They experienced anxiety when they were not given sufficient information about related cases. The OR experience affected the students either positively or negatively in the determination of their career preferences in the future. These findings have important implications when providing the cognitive, affective, and psychomotor support needed by the students in their OR practices and is important for their career developments. Findings from this study will provide guidance for designing strategies for more effective clinical teaching during the OR experience. The results of this study should be considered by OR staff and nursing educators.

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