Perception and Experiences of Undergraduate Nursing Students on Clinical Learning Environment in a Public University

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Abstract
Background: Clinical learning is viewed as a fundamental and essential part of nursing education. Clinical training offers chances to use the theoretical knowledge in practice, raise problem-solving and executive skills, learn time management, collaborate with others, and develop professionalism. Objective: This study intended to reveal the perceptions and experiences of the clinical learning environment of undergraduate nursing students and the influencing factors of the clinical learning process. Methodology: A mixed-method approach comprising qualitative, exploratory, and phenomenological research design was used. Nonprobability purposive sampling technique was applied to select the sample. Data were collected by mixed methods of inquiries of 14 in-depth interviews, 4 focus group discussions, and clinical observations from third- and fourth-year bachelor of nursing students. A content analysis approach was used to analyze the collected contents. Results: The study identified seven factors influencing nursing students’ clinical learning experience. An expert clinical instructor, supportive role of clinical nurses, reliable communication and relationship, job description, theory-practice integration, availability of resources, and social and psychological factors are essential for effective clinical learning. Conclusion: Nursing students face many challenges in the clinical learning environment. For effective clinical learning, the seven identified factors are recommended to consider while designing clinical learning instruments for the students.

Introduction
Clinical education is viewed as a fundamental and necessary element of nursing education. Clinical training enables students to use theory to practice and develops their problem-solving and decision-making abilities, as well as their ability to manage their time, collaborate with others, and enhance their professionalism [1–3]. Through experience in the clinical environments, student nurses acquire the knowledge, skills, and values essential to professional competencies and become socialized into the nursing profession [4]. Through clinical training, nurse
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educators facilitate students’ learning by applying theoretical knowledge to the actual situation in the clinical setting [5]. Hospitals, physicians’ offices, health departments, clinic units, and other health care departments serve as clinical teaching sites for students [6]. It is seen as a difficult process involving the integration of cognitive, emotional, and psychomotor abilities [7]. Students’ groundwork for accessing the clinical setting for their exposure is a vital factor affecting the teaching-learning process and quality of clinical education [8]. Clinical education confirms that students receive information and skills related to patient care. Clinical education seeks to strengthen students’ critical thinking, decision-making abilities, and self-confidence [9].

A literature review has revealed a few studies on students’ challenges during clinical learning in Bangladesh [10, 11]. Identifying the obstacles that nursing students confront in all facets of the clinical learning environment may help enhance skills and the planning quality and advancement of students [2]. This concern sparked an interest in conducting a formal investigation of student nurses’ experiences in clinical learning situations. Clinical environments usually mean hospital wards, units, and community and health clinics. Student nurses were the only ones who could provide these first-hand experiences [4]. The study findings of this qualitative research reflect the participants’ experiences and perceptions of their nature [12]. Through this research, the knowledge and perceptions of nursing students of different socio-economic structures from the Bangladesh context reflected their clinical learning environment [13]. This study intended to reveal the perceptions and experiences on the clinical learning environment of undergraduate nursing students and influencing factors of the clinical learning process [9].

Clinical experience provides the students with the chance to integrate theory into practice and prepares student nurses to know and use the skills in the clinical setting [14], making them competent and confident to provide patient care [15]. This study explores the students’ perceptions and experiences of the clinical learning environment, which can be used to effectively plan and design the clinical learning component of the undergraduate nursing program. Moreover, no published studies are available on the perception and experiences of undergraduate nursing students in Bangladesh. In order to build a fruitful clinical teaching strategy in nursing education, an examination of the students’ perspectives on their clinical learning environment is being undertaken.

Materials and Methods

Study Design
The qualitative, exploratory, and phenomenological research design was used. Qualitative research has several advantages in nursing education [16] because of its emphasis on trust, validity, reliability, and flexibility [17].

Place of Study and Sampling
The study was conducted in Bangladesh’s Department of Graduate Nursing, Bangabandhu Sheikh Mujib Medical University (BSMMU). Undergraduate nursing students (third-year and fourth-year bachelor nursing students) were the population in this study. The selection criteria were respondents should be 3rd-year and 4th-year bachelor nursing students and voluntarily agreed to be interviewed. Nonprobability purposive sampling technique was applied to select the sample. Data were collected until new information was obtained.

Data Collection
In-depth interviews (IDIs), focus group discussions, and observation methods were used to collect data. IDI guidelines were followed for preparing semi-structured IDI schedule, FGD guidelines for semi-structured FGD checklist, and observation checklists for observation. Data were collected by mixed methods of inquiries of 14 IDIs, 4 FGDs, and clinical observations from third- and fourth-year Bachelor of Nursing students. Each FGD comprised 6 respondents. Data were collected by the mixed method of inquiries of IDIs, FGDs, and observations of the students during their clinical placements to obtain deeper information. At first, all the IDIs and FGDs were conducted, audio records and notes were taken. Then they were transcribed after the end of all the audio recording sessions. The study was conducted from July 18, 2019, to March 25, 2020.

Ethical Issues
Before starting the study, the research project had been approved by the Institutional Review Board (IRB) of Bangabandhu Sheikh Mujib Medical University (BSMMU). The participants have been explained the purpose of the study, were given assurance to maintain anonymity and confidentiality of their information, and informed consent was obtained from the participants before data collection. Prior permission was also taken for voice recording from the participants. Approval was also taken from the Dean, Faculty of Nursing, of the same university to collect data. Data will be used for research purposes without disclosing the identity of the participants.

Data Analysis
Qualitative content analysis was used to analyze the data to understand better the students’ perception of their clinical learning experiences. Immediately after each IDI and FGD, debriefing sessions were conducted with the observer to make debriefing notes. Debriefing notes include comments about the IDI and FGD process, nonverbal communication, gestures, and participants’ behavior [14]. After listening to the tape and transcribing the tape’s content, data were coded and categorized and finally grouped under the headings according to objectives [18].
Results and Discussion

After completing data collection through IDIs, FGDs, and clinical observations, the following findings are drawn from the transcribed data and were grouped under the headings according to objectives.

Perception of Clinical Learning Environment
Nursing Students’ Perceptions during Clinical Learning

This study has identified several key themes to present the students’ perception of clinical knowledge, such as nursing as a noble and systematic profession, reluctance to the nursing profession, nursing as the last option, misconception about nursing as a profession, and lack of privileges [19] and activities and respect (Fig. 1).

Nursing as a Noble and Systematic Profession

Among the interviewees, 13 out of 14 perceived nursing as a noble profession because nurses always remain close to the patients. Four out of 14 recognized nursing as a systematic and wonderful human-helping profession. An interviewee narrated as, “nursing is a wonderful and

systematic profession. Now I have no desire to quit this profession for no other option.” Of 14 interviewees, 2 said that they could serve people through this profession, which is a blessing from the Almighty.

Reluctance to the Nursing Profession

Though many people have gradually changed their attitude toward nursing, many students are still less interested in choosing nursing [20]. During 14 interviews, only one interviewee said, “from my childhood, it was my great desire to be a nurse because my mom is a nurse. From my childhood, I saw she can help in every sector of health, and for that, I want to be a nurse.”

Nursing as the Last Option

In IDIs, 3 out of 14 interviewees expressed that they had ambitions of becoming a doctor but did not get a chance into medical college. Afterward, they enrolled in a nursing course. From the 14 IDIs, it has been found that 4 out of 14 interviewees struggled to accept nursing courses and learning environments when they first started the course. One interviewee said, “I couldn’t accept myself, couldn’t accept nursing and even this learning environ-
ment. I became depressed for a whole year because I had a previous history as a bright student.”

Another interviewee said, “Whenever I see my former classmates are studying in different public universities, it triggers me a lot. I was supposed to be there, but I am in nursing. I have always been a bright student, so I expected to be a doctor. Since I didn’t get a chance, I chose nursing as my last option. So, I feel like I am worthless; my future is dark. These thoughts always intrude in my mind.”

Misconception about Nursing as a Profession

In IDIs, 5 interviewees remarked that many people could not accept nursing as a noble and respectable profession, so they spread bad names about the nursing profession. One interviewee said about his family member, “My family members very often used to tell me, what types of profession you choose? To whom will we get you to marry? Because of all these, I stopped communication with my family members for a long time.”

During clinical observations, one participant said that she knew a famous senior nurse who holds a very prestigious chair in the nursing profession. That senior nurse does not want to marry their son to a nurse.

Lack of Privileges, Activities, and Respect

A participant during FGD mentioned, “If we compare our privileges with other public university students, then it seems like we are deprived, we get fewer opportunities in the proportion of them. We sometimes become upset thinking about these issues.” Another interviewee said, “As adult students, we enjoy less freedom than other university students.”

During an IDI, an interviewee said, “Being nursing students, we are far away from studying different topics, from other extra-curricular activities compared to other public university students.” Moreover, 6 out of 14 interviewees said that many people have little idea about nursing and show less respect for it. “Many people know about nursing profession less respectful than medical doctors” report 3 interviewees out of 14.

Experience in the Clinical Learning Environment

Nursing Students’ Experiences during Clinical Learning

Several key themes have been identified to present the student’s experience in clinical learning, such as emotional attachment in the workplace (Fig. 2). The clinical prac-
Clinical Practice Opens the Door to Learning about Nursing Gradually

Five out of 14 interviewees admit that they got the best, most accurate knowledge about the nursing profession when they started clinical practice in the first year. An interviewee narrated, “...when we got the opportunity to implement the theories and work in clinical practice, we get the whole view of nursing.”

They learn and gain experiences about nursing systematically and gradually. Every academic year, they learn new things, which keeps them active and interested in every class, as expressed by 6 interviewees during 14 interviews.

Start Feeling Confident in Applying Theoretical Knowledge

“We feel comfortable when we can apply what we learn in theory and skill lab,” said one interviewee. Seven out of 14 interviewees articulated that they feel confident and successful when applying what they learn in the class and practical lab. The clinical observer also confirmed it. The observer noted that she found very confident nursing students when they were working. Three out of 14 interviewees stated that patients feel successful and proud when they get cured or improved through their services. A respondent also confirmed this during FGD, who said, “The patients or patient’s families very easily could approach us. They felt friendly, comfortable, and trusted with us. They shared their issues and stories very easily with us. We also enjoyed that.”

Another four respondents noted that they supported the patient physically and emotionally. Six out of 14 interviewees expressed feeling anxious when they first used cannula, drew blood, gave the injection, provided oxygen, nebulized, etc. One interviewee said, “My hand was continuously shaking, and I felt nervous during my first cannulation. But when I did it successfully, my joy overflowed.”

Emotional Attachment in the Workplace

During interviews, 5 out of 14 interviewees reported that they enjoyed their clinical practice. The 2 respondents confirmed it from FGD. One interviewee said, “We had very positive feelings during our clinical practice. We worked with lots of enjoyment in our minds. Though we couldn’t do too much as a novice, we enjoyed it ourselves.”

“When I was taking care of that patient, it seemed like I was taking care of my grandmother,” said another respondent in an interview. The clinical observer also ratified that finding. She noted that the ward in charge was satisfied with the student nurse’s services and behavior. The ward in charge said, “They work with lots of happiness and enjoyment in their mind.”

Contributory Factors for Positive Learning

This study has identified several key themes to present the contributory factors for positive learning. These are learning from patients, learning from ward-boys and mistresses, evaluation forms, studying theory supports clinical practice [21], training in skill lab supports clinical practice, warm welcome and cooperation from senior nurses, learning from the doctors, and teaching methods [11] (Fig. 3).
Studying Theory Supports Clinical Practice
During FGD, 3 out of 24 participants said they gained theoretical knowledge before starting clinical practice. This theoretical knowledge helps them during their clinical practice reported by 8 out of 14 interviewees. One interviewee said, “We study enough theory before we start clinical practice, and we find similarities between the theory and practical.” In contrast to the statement, in one FGD, 2 out of 6 respondents expressed that they did not find similarities between the theory and practical field, which creates difficulties in their clinical practice.

Practice in the Skill lab Supports Clinical Practice
Seven interviewees out of 14 mentioned that they practiced different procedures in the skill lab before going to the clinical trial. Those skill lab practices were helpful for their practical experience. During FGDs, 5 out of 24 respondents mentioned that the ideas from the skill lab about the different instruments helped them a lot in assisting doctors in OT.

Warm Welcome and Cooperation from Senior Nurses
While interviewing, 8 interviewees out of 14 addressed that their senior nurses received them very warmly and efficiently during their clinical practice. One interviewee mentioned, “Apu (Senior female nurses) and Bhaiyara (Senior male nurses) accepted us very warmly and gave us their highest levels of co-operations.”

Learning from the Doctors
During the FGDs, 4 respondents noted that sometimes doctors taught them many things. This finding was consistent with 3 interviewees out of 14. An interviewee said, “There were some doctors who eagerly taught us many things.” Another two respondents stated that if the nursing students did any wrong with the patient, the residence doctors only observed it, and later, he taught them how to handle it. Thus, they felt respect from doctors. Three interviewees stated that they felt good when doctors recognized their work. An interviewee said, “I feel proud and successful when the doctors say, ‘you have done great jobs’.”
"We learned a lot of things from the doctor’s order and advice", narrated a respondent in one FGD. Three out of 24 respondents noted that they had learned many things from doctor orders.

Teaching Methods

Two respondents stated that teachers gave them assignments and group work, which greatly helped them in their clinical practice. During FGDs, three respondents said they performed role-play during class, which allowed them a lot in their clinical practice.

An interviewee said, “Through that case study, we learned about a certain disease in detail. We learned about the symptoms, causes, and treatment methods. This was very helpful in our practical work in a hospital.” 4 out of 14 interviewees noted that case studies were helpful in clinical practice. The 3 respondents also confirmed this during FGDs. Twelve out of 14 interviewees and 3 respondents of FGDs mentioned that before dealing with the natural human body, they practice with dummies in a skill lab, which they felt would be very helpful. Respondent also said the importance of the subject area for learning.

“Anatomy class helped us a lot during our clinical practice. This subject should include in every academic year,” commented a respondent in FGD. During the FGDs, 3 out of 24 respondents agreed that the anatomy class was helpful in the practical field. Four out of 14 interviewees said that when they did not understand any topic, they would discuss it by themselves in a group after clinical practice, and thus, they helped themselves. They mentioned the importance of giving time to learn from a peer through group study [5].

Learning from Patients

Three respondents said they learned many things from the patients and their families. The four interviewees confirmed this. One interviewee said, “Those who are taking service in the hospital for a long time, we also received help from those.” Another respondent said, “There were some critical new diseases affected patients, and we learned from their symptoms.” As our hospital is a tertiary hospital with some specialized programs, it is easy for the nursing students to learn about critical diseases or newly discovered diseases reported by 3 participants of one FGD.

Learning from Ward-Boys and Mistresses

From the interview, it has been found that the nursing students learn many things from the ward-boys and mistresses working in hospitals. Three out of 14 interviewees said that they learned ECG, oxygenation, nebulization, cannula, etc., from the ward-boys. The clinical observer found that a female patient was taken to the labor room with the assistance of mistresses. She also found that the mistress led the delivery process, and other student nurses and senior nurses were present. The observer remarked to her that the mistress was very skilled and confident during the delivery process.

Evaluation Forms

Evaluation forms seemed to be very helpful for learning. “When we observed our daily evaluation form, we could see the whole picture of the day. I could understand I have done very good this and that, but it would be better if I would have followed that way.” remarked the five interviewees out of fourteen.

Conclusion

The study identified seven factors that influence nursing students’ clinical learning experience. An expert clinical instructor, supportive role of clinical nurses, responsible communication and relationship, job description, theory-practice integration, availability of resources, and social and psychological factors are all important for effective clinical learning. To enhance the clinical learning experiences of nursing students, this study recommends introducing preceptorship in the hospital for the nursing students and newly graduated nurses, clear job descriptions for personnel, equipment supply, regular professional discussion, skill development, and documentation. Since a sample of third and fourth year nursing students was used in this research, hence clinical nursing experiences were included at this level only. Factors influencing clinical learning experiences might differ based on student’s level of study. Evaluating students’ clinical experience throughout their courses is needed to design the clinical component of nursing education effectively. Besides this, the study sample included participants from one public university only, leading to a lack of generalizability.

Statement of Ethics

The ethical approval number is BSMMU/2019/3860 dated April 11, 2019. Before starting the study, the research project had been approved by the Institutional Review Board (IRB) of Bangabandhu Sheikh Mujib Medical University (BSMMU). The participants have been explained the purpose of the study, were given
assurance to maintain anonymity and confidentiality of their information, and informed consent was obtained from the participants before data collection. Prior permission was also taken for voice recording from the participants. Permission was also taken from the Dean, Faculty of Nursing, of the same university to collect data.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Author Contributions

Mabel D Rozario has done conceptualization, study design, supervision, analysis, and wrote the original draft. Delowara Begum has done data collection, analysis, and wrote the original draft. Noopur D. Costa has done data collection, analysis, visualization, supervision, and edited the manuscript. Most Nasrin has done data collection, analysis, administration, and revised the original draft. Hasina Akter has done data collection, analysis, data visualization, and edited the manuscript. All authors approved the final version for submission.

Data Availability Statement

All data associated with this study are present in the paper. Further inquiries can be directed to the corresponding author.