

# Concepts in Evaluating Effective Clinical Education: A Qualitative Study of Nursing Students' Experiences

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## Abstract

**Background:** Improving the quality of clinical nursing education requires continuous review of the current situation to address weaknesses. Students are the best sources to identify clinical education problems.

**Objectives:** This study aimed to extend our knowledge about students' views on the problems related to effective clinical education.

**Methods:** Following a qualitative approach, the current study was conducted on nursing students in selected teaching hospitals in Mahabad, Iran, in 2019. Twenty students were selected using purposive sampling. Data were collected through in-depth interviews based on the real experiences of nursing students of learning in a clinical education environment with answers to nine open-ended questions. The qualitative content analysis method was used to analyze the data.

**Results:** All interviews were transcribed to identify conceptual codes. Four general concepts and sub-concepts were identified, which included factors related to the clinical education environment, learners, clients, and clinical education instructors.

**Conclusions:** Those who are responsible for making nursing education policies can use the findings to improve the quality of clinical education and develop students' competencies to better care for patients, mainly by emphasizing clinical learning environments (e.g., facilities, empowering educational instructors, increasing students' self-confidence, and client-to-student trust), which will translate into more interested and motivated students.

**Keywords:** Students; Nursing; Education; Hospitals

## 1. Background

Clinical education is the most important part of nursing education that provides opportunities for students to acquire professional knowledge and skills as well as the necessary competence in caring for the client (1). Evaluation is the heart of any educational program and is of particular importance in nursing to ensure the qualifications of graduates (2). Ensuring the clinical qualification of students is a key part of medical education programs (3).

Nursing education contains theoretical and clinical components (4). The latter has a key contribution to shaping students' professional identities and enabling them to translate theoretical knowledge into essential psychomotor skills for patient care (5). Therefore, any deficiency and inadequacy in the process of education will affect the quality and quantity of health services, and ultimately the health of individuals and society (6). Emanuel et al.

(2013) introduced the appropriate clinical environment as an important part of nursing education (7). Kaphagawani et al. (2013) also suggested that effective learning occurs if students in clinical settings have opportunities to practice what they have learned in theoretical and practical classes. In their study, they referred to the guided clinical environment as a supportive environment with good communication (8). An effective assessment process can put qualified students into action. Therefore, the educational system is expected to emphasize the preparation of students to care in complex situations and to acquire the necessary knowledge, attitudes, and skills (9).

The clinical education environment is an important determinant of teaching and learning, and the complex learning process in clinical settings depends greatly on the type of clinical experience the learner has. Basically, gaining experience in the clinical environment is considered an important and effective factor in students' learning. It can be argued that the success of nursing



programs depends significantly on the effectiveness of these clinical experiences (10). Students, as recipients of educational services, are the best source for identifying clinical education problems (11). Since nursing discipline is based on the practice, nursing students spend most of their time in clinics; hence, it is necessary to provide conditions that nurture their abilities to have better learning experiences in such settings.

Therefore, clinical experiences should lead to the development of skills, the combination of theory and practice, the application of problem-solving skills, the development of individual skills and socialization in both formal and informal forms, and failure to provide relevant and appropriate clinical experiences will have consequences for both students and nursing profession (12). Understanding and identifying the necessary issues and challenges of nursing students in clinical settings and their effective management can facilitate their admission as young professionals (13).

Some studies have tried to investigate nursing student experiences and designed questionnaires to evaluate the effectiveness of clinical nursing education (14). Despite the high importance of learning in the clinical environment, the results of many studies conducted in this field indicate the lack of desirable experiences of students in this environment (15, 16). Moattari and Ramazani (2010) reported that the students did not give an acceptable score to their clinical environment (17). In Jahanpour et al.'s (2010) study, students also stated that despite passing internship courses, they did not gain enough experience due to the lack of variety and frequency in performing some sensitive procedures. According to the collected data, they also reported that the learning environment is inappropriate (18). Other research studies showed that most clinical environments are not able to provide a positive learning environment for students (19).

## 2. Objectives

There are many challenges in evaluating the clinical performance of nursing students, and several researchers have focused on them (2, 20, 21). Due to the importance of this subject and the existence of many challenges in this field, this study was created to explain the skills of nursing students in clinical evaluation in the field.

## 3. Methods

This study was phenomenological qualitative research based on the experiences of nurses to evaluate effective clinical education in selected hospitals in Mahabad City, Iran, in 2019. In addition, the criteria for reporting qualitative studies (COREQ) guide are used to report the findings.

### 3.1. Sampling

Participants were selected using the purposive sam-

pling technique. This method is based on selecting participants who can provide valuable information (22-24). The sampling was stopped upon reaching data saturation; i.e., to the point where researchers felt that new information could no longer be obtained with the inclusion of new samples. The saturation was achieved after the 5th interview; however, to ensure the sufficiency of the collected data, a total of 20 interviews were performed. Furthermore, theoretical sampling methods also were used to identify individuals who could provide rich and useful information to researchers. We tried to interview a wide range of people, in terms of age, employment status, work experience, degree, and job position, to increase the diversity of the collected data. Inclusion criteria for the participants are as follows: (1) experiencing many opportunities in clinical education and different departments; (2) those at the end of the internship and internship in the field; (3) relative mastery in clinical skills; (4) familiarity with routine activities; and (5) doing internships directly under the supervision of university clinical instructors. Exclusion criteria were unwillingness to participate and those without an internship course in the first semester.

### 3.2. Data Collection

Data were collected using semi-structured interviews performed by two members of the research team (B.Y, Y.M). Moreover, pending the interviews, guideline of questions were designed. The interviews lasted from 45 to 60 minutes and were all audio-recorded, except for the fourth interview that lasted for 35 minutes, appropriate to a busy timeline. Matching to the commendations, the presence of 1-2 expert researchers was used as interviewers and note-takers. Interviews were done by an experienced and competent interviewer. Field notes were also taken for the greater accuracy of data collection by another researcher. In addition, another responsibility of the second researcher was to mention the participant's code and taking into account non-verbal cues such as facial expressions and body movements. All interviews were audio-recorded after obtaining the consent of the interviewee. The researcher also used note-taking to collect information, and the recorded interviews were listened to several times and transcribed in Word Software immediately after each interview.

### 3.3. Data Analysis Methods

Data were analyzed using conventional content analysis, which intends to analyze, identify, and report extracted themes. This method is widely used in qualitative studies, particularly when the theories in the field of research are finite (25-27). Data coding was performed by two independent reviewers (M.N and Y.E); then, the coding results were gained in a joint meeting between the two coders, merging and agreeing. Arguments were referred to a more experienced and knowledgeable third party (Y.E).

Data analysis and coding steps were as follows: acquaintance with the data text (reading the transcripts several times -data plunging); identification and extraction of primary codes (based on the original codes); themes extraction (primary codes were extracted and categorized into categories and themes); ensuring the adequacy of identified themes; naming and defining themes, re-coding and renaming some categories and themes; and ensuring codes reliability.

All interviews were transcribed and analyzed one by one. The key questions were as follows: (1) "what experiences of clinical training do they have?"; (2) "what factors were involved in their learning process?"; (3) "describe what happened to you during an internship day?"; (4) "as a nursing student, what were your concerns during the internship?"; (5) "what were your expected and unrealized expectations during the internship?"; (6) "what is your purpose in attending a clinical internship?"; (7) "are you interested in nursing and learning skills? Are you clinically interested? If yes, why?"; (8) "have you ever seen a nurse you think is worthy of an internship? If yes, what features did you see in her?"; (9) "what do you think nursing means?". In addition, exploratory questions were also used as needed, such as: (1) "can you give an example?", and (2) "tell me about this?" Each interview ended with the following questions: (1) "Do you have a suggestion or comment?"; and (2) "Do you think there is a question that has not been asked?". In this study, validity and reliability were evaluated using four evaluation criteria of real value, applicability, continuity, and based on fact presented by Guba and Lincoln (28).

### 3.4. The Rigor of the Findings

**Table 1.** Main Topics and Subcategories

Theme	Subtheme
<b>Factors related to the clinical education environment</b>	Physical space of clinical education
	Variety of sections and their rotation
	Lack of facilities and equipment
	A large number of students in the departments
	Lack of cooperation of department staff
<b>Factors related to inclusive</b>	Having motivation and interest in nursing
	Inclusive self-confidence
	Bitter and sweet experiences pervasive
<b>Factors related to educational instructors</b>	An atmosphere of confidence and intimacy in the clinical education environment
	Professional skills of a coach
	Efficient evaluation
	Course content and teaching methods
	How clients and companions treat students

#### 4.1. First Category: Factors Related to the Clinical Education Environment

One of the main concepts was the "clinical education

To enhance the accuracy and consistency of the study results, criteria proposed by Guba and Lincoln were applied (28). Validity and verification of ability: to achieve this issue, long-time involvement and review by experts' opinions were used. Respondents' validity was also used at the end of the interview and summarizing their opinions. Dependability: two independent reviewers performed the coding process. Transferability: purpose-based sampling was performed to achieve this goal. Further to the cases mentioned in this study, the methods of adhesion in the research and transparency were also applied.

### 3.5. Ethical issues

Written informed consent was obtained from all participants before entering the study and after a comprehensive introduction to the study protocol. In addition, they were informed that they can withdraw from the study at any time.

## 4. Results

In this study, a total of 20 nursing students who had internship experience were interviewed. The mean age of participants was  $21.5 \pm 1.90$  years, 12 (60%) were male, 18 (90%) were single, and the rest were married. In addition, 18 (90%) of the students were interested in their field, and only 2 (10%) stated their dissatisfaction. There was no fellow student.

Data saturation was achieved after 20 interviews. The concepts of coding and analysis, including four general categories and subcategories, are presented in Table 1.

environment", which encompasses a wide range of dimensions, including the many experiences of students in different areas of clinical education. Subclasses included: (1) department congestion; (2) lack of welfare facilities; (3)

a large number of students; (4) lack of diversity of departments; (5) lack of cooperation of department staff in the form of extracted codes; and (6) form the components of this class. Most of the students complained about the crowdedness of the ward, the existence of a large number of students, the lack of welfare facilities, and the uniformity of the internship wards.

- The physical space of clinical education: For instance, interviewee number 1 noted that: "There is no suitable place for the instructor's training and in most cases, the doctor in the ward is filling the patients' files." In addition, interviewee number 2 noted that: "We nursing students have a physical environment problem. No classroom for a conference, no place to rest".

- The diversity of sections and their rotation is an effective factor in increasing the learning and experiences of nursing students. In this study, failure to do so was one of the main complaints of the participants. My expectations as a nurse were not met and I have not yet attended most of the wards".

- Participants noted that clinical settings do not have the appropriate equipment and facilities for training, which hinders effective training. Interviewee number 14 noted that: "Sometimes the hospital does not have the facilities to work in a principled way. In some areas, we have a shortage of basic items such as gloves, masks, etc".

- The following themes were extracted regarding a large number of students in the wards: Interviewee number 1 noted that: "There are a lot of students in the ward and the head nurse always points out to the instructor". In addition, interviewee number 4 noted that: "The number of students in the ward is high and it is not possible to gather in the rooms as causes problems for patients." "I expected the number of trainees in each ward to be much lower, which allows students to experience a minimum of routine work in the ward," said interviewee number 16.

- Lack of cooperation of department staff: In this study, participants believed that effective cooperation, staff cooperation, and proper communication between staff and students are of crucial importance. Interviewee number 17 believed that the cooperation of ward staff is one of the effective factors in effective learning.

Inference from the participants' experiences shows that they consider the existence of favorable mental, physical, and appropriate educational facilities in the clinical environment necessary and believe that the lack of facilities. In addition, they believed that a suitable educational environment can adversely affect their learning.

#### 4.2. Second Category: Factors Related to Inclusiveness

One of the major contributors to effective clinical education is relevant to learners. Participants paid special attention to their motivation, self-confidence, and some personal characteristics in their descriptions.

- Having motivation and interest in nursing: According

to the opinions of the majority of the participants, having sufficient motivation in students leads to their interest, and they will perform better. Participant No. 10 noted that: "Because I have chosen this field as a profession, I consider learning clinical skills as a requirement for this profession".

- Inclusive self-confidence: According to the participants, high self-confidence causes the student to have better learning and effective clinical education. Participant No. 13 said that "I'm interested in the field of nursing, and it gives me the confidence to be useful in different situations and to be trusted by clients and their companions".

- Bitter and sweet experiences pervasive: Some participants referred to bittersweet experiences in clinical education that can affect students' learning, for example, participant number 10 spoke of bitter experiences as severe injuries and deaths of patients and sweet experiences, such as saving human lives and improving their health".

#### 4.3. Third Category: Factors Related to Educational Instructors

From the perspective of the participants, the factors related to educational educators contributed to effective clinical education. The sub-categories related to this area included the coaching behavioral characteristics, communication skills, and coaching management style.

- The majority of participants believed that educators can create an atmosphere of confidence and intimacy in the clinical education environment. Participant No. 12 noted that "As a nursing student, I expect the right behavior and understanding on behalf of the instructor".

- Participants 2 and 8 noted that "We expect some coaches not to humiliate us in front of the patient." Participant No. 11 also stated: "In the second semester, which was the first semester of entering the hospital for an internship, we had a coach who kicked me out of nursing, hence I lost my desire. "He reprimanded me in front of the patient and other nursing students".

- Participant No. 5 said, "Among my internship concerns was the lack of useful clinical training by the instructor, the non-selection of the instructor by the student, and my only choice was the selection of the internship day on the site".

- Participant No. 3, with the theme mentioned, "During the internship, the instructors taught us the theories well, but we have problems in practice. A lot of times, they do the practical work themselves, and we are more spectators." Participant No. 6 also points out that clinical educators need to do more practical work than theoretical work. Overall the results showed that choosing the right teaching method leads to better transfer of materials, student participation, and promotes learning, and contributes to the effectiveness of clinical education. In particular, participant No. 3 mentions that during the internship, the instructors teach us theory well, but we

have problems in practice. "A lot of times, they do the practical work themselves, and we are more spectators".

- Participant No. 9 noted that one of the effective factors in the clinical education environment is the way clients and their companions treat trainees. I mean, they do not allow them to perform procedures. As participant No. 9 mentioned: "One day during the internship, for the first time I had an angiocatheter, those around me behaved in such a way that my whole body trembled, the patient was looking at me strangely, and though I had done nothing, he was screaming".

Based on the findings, one of the most important and integral components of an effective nursing education system is the evaluation process. Most participants were dissatisfied with the clinical evaluation method and believed that the evaluation criteria in the clinic were not objective.

## 5. Discussion

This study aimed to extend the knowledge about nursing students' views on the problems of effective clinical education and their experiences of an effective clinical education environment. A total of four themes were extracted, as follows: (1) clinical education environment; (2) educators; (3) learners; and (4) clients. Providing educational conditions and facilities can lead to desirable results in educational activities. Providing a suitable environment for clinical education is one of the effective factors in clinical education. According to the interviewees, providing a suitable environment during which they can use all their mental and physical strength to gain new experiences is a prerequisite for effective education. Some participants also described the lack of suitable environment and facilities in the wards as a major obstacle in clinical education, which is in line with study by Heydari et al. (2011), who reported that the conditions and possibilities of clinical education (human resources, facilities, and equipment) are effective in clinical education planning (29). In this study, the majority of participants complained about a large number of students and the uniformity of some departments, including internal medicine and surgery. The study conducted by Delaram (2012) showed that the majority of the samples did not consider the number of nursing students in the ward appropriate (30). Also, Henriksen and Ringsted (2011), in their study, considered the lack of cooperation of hospital staff with instructor and student as well as the lack of proper communication among hospital staff and instructor and student as the most important problems of clinical education (31).

According to the findings, the characteristics and skills of the instructor are major contributors to effective clinical education. The majority of participants believed that clinical educators, in addition to having experience and scientific skills in the clinic, are unique in terms of behavioral characteristics, communication skills, and

management style to help students learn the role of their profession. In the same vein, Hemmati Maslakkpak and Khalilzadeh (2011) showed that, based on students' experiences and their point of view, one of the most important characteristics of a good instructor is the managerial experience (32). In a qualitative study conducted by Hasanpoor and Bani (2012), nursing students expected clinical instructors to be qualified and capable of management (33).

In the present study, students believed that the instructor should have characteristics such as merit and scientific and professional competence. Furthermore, they believed that the instructor must support, reinforce, and encourage students' self-confidence, which is consistent with the study by Henderson et al. (2012). It is believed that the professional skills of the instructor are an effective factor in effective clinical education (34). Flott and Linden (2016) showed that students describe interpersonal communication skills as the most important feature of clinical educators (35). Clinical instructors in professional communication not only can create and strengthen cooperation but also can enhance coordination between the hospital staff, which is in line with the study by Heshmati Nabavi and Vanaki (2010) (36). Therefore, it seems that attracting the cooperation of hospital staff and justifying the position of students for them, and applying the correct principles of communication can be an important step in solving this problem.

Students' motivation, interest, and self-confidence were some of the effective factors in effective clinical education mentioned by the participants in this study. Graham et al. (2016) showed that the lack of interest and motivation of students in the clinical education environment is the most important obstacle to the clinical education of nursing students (37). Jansson and Ene (2016) also considered students' self-confidence and learners' characteristics as an effective factor in promoting clinical education (38). Students' observation and the lack of student authority by the instructors in performing the procedures were other challenges for students when learning in the clinical education environment. The important issue in this regard is that nursing students should know to what extent they are allowed to work independently based on their semester because they need to gain experiences similar to those of ward nurses so as to get desirable learning experiences.

If the student is trusted, s/he will be more motivated to learn clinical issues. Helminen et al. (2016) showed that students in the clinical environment believe hospital staff and educators have not yet accepted the student as a member of the group (39). The majority of research participants stated that the purpose and motivation of the nursing and clinical education environment are to serve their fellow human beings. This creed is in agreement with the results of Pourghane's research (2013), by which the author believed that the purpose and motivation of gaining clinical learning experiences are to raise aware-

ness, skills, and service (40).

Various factors contribute to achieving effective teaching in a clinical environment, one of which is the relationship between the learner and the student. An atmosphere of respect and trust in the student on behalf of the patient will promote student learning and better care for the patient. Achieving satisfactory learning is highly difficult without an environment with healthy elements. Therefore, what is important is to provide an environment with healthy elements. In the research of Mikkonen et al. (2016), students noted that having a good relationship with the instructor, staff, and patient leads to a pleasant learning environment and gaining desirable experiences in the clinic (41).

### 5.1. Limitation

It is necessary to mention some limitations and biases of our study, including the non-generalizability of the results due to its qualitative nature.

### 5.2. Conclusion

This study demonstrated that nursing students in clinical education environments have problems and bottlenecks, and these problems are related to the four factors of clinical education environment, learners, clients, and instructors of clinical education. Therefore, the researchers of this study recommend that those who are responsible for making nursing education policies can use the findings to improve the quality of clinical education and develop students' competencies to better care for patients, mainly by emphasizing clinical learning environments (e.g., facilities, empowering educational instructors, increasing students' self-confidence, and client-to-student trust), which will translate into more interested and motivated students.

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