

The Experiences of Nursing Internship Students During the COVID-19 Pandemic in Iran

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Abstract

Background: Nursing internship is a vital period for the formation of professional identity and development of clinical competency of nursing students, which has undergone extensive changes during the COVID-19 pandemic. The present study aimed to explain the experiences of nursing internship students during the COVID-19 pandemic in Iran.

Methods: This qualitative-descriptive study was conducted using the conventional content analysis method. Data were collected through semi-structured interviews. Participants included 15 nursing internship students of Shahid Beheshti University of Medical Sciences in Iran, who were selected using purposive sampling. The interviews continued until data saturation. The trustworthiness of the data was ensured using Lincoln and Guba's criteria. Data were analyzed via MAXQDA (version 10).

Results: Data analysis led to the identification of two themes: (1) *Paradoxes in clinical education path* (with two categories including *impaired learning and effective clinical education*) and (2) *Psychological pressure in patient care* (with two categories including *student protection and safety concerns and disruption of professional interaction*).

Conclusion: The present study showed that the COVID-19 pandemic has created many challenges for clinical nursing education that will affect professional competency in the future. Therefore, educational administrators must take into account the experiences of students as the main stakeholders in clinical education planning.

Keywords: Nursing, Internship, Students, COVID-19, Qualitative research

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Introduction

Coronavirus disease (COVID-19) was first diagnosed in Wuhan, China in 2019, rapidly affecting the world's population (1,2). Therefore, after 17 months, it is still the most challenging disease (3). The COVID-19 pandemic also affected all aspects of human life and the education system with no exception (4), especially medical education which has faced many challenges considering its mission to train human resources (5). In the meantime, nursing schools are facing the barrier of educating nursing students who play an increasingly important role in promoting the health status of society. They face the dilemma of training students and the concerns over maintaining their health as well as that of instructors (6,7). At the beginning of this pandemic, many countries, including Iran, kept students away from attending clinical wards to protect them from the pandemic (8-12). However, the need for new and fresh staff and acceleration in the graduation process of nursing students caused nursing internship students to enter clinical settings (13).

The nursing internship is a transition course to form students' professional identity (14-16). Nursing internship

integrates clinical knowledge and critical thinking skills, but due to this pandemic, it has undergone extensive changes (17,18).

In a study, Eweida et al showed COVID-19 was a source of stress among Egyptian nursing internship students, especially in adult wards, such that 77.3% were under stress, including feelings of depression and worthlessness (19). In Australia and India, researchers reported other psychological consequences, including increased levels of anxiety, impaired concentration, and sleep disorder in students.

In addition, students, especially junior and senior ones, reported significant anxiety about attending classes (13). Similarly, Casafont et al also reported high levels of stress in senior nursing student volunteers in Spain. In addition to psychological consequences (20), Ulenaers et al showed in a study in Belgium that almost half of the students had to change clinical wards, raising practical concerns and widening the gap between learning goals and learning opportunities (21). Although 67.07% of students did not directly visit positive COVID-19 patients, they also reported fear of infection.



As mentioned earlier, nursing internship is a critical period for gaining clinical competencies, but with the outbreak of COVID-19, it has gone through extensive changes. Since most studies have focused on the psychological consequences of this pandemic on students, there are fewer studies on the consequences of clinical education. Therefore, the present study explored the experiences of Iranian students in nursing internship during the COVID-19 pandemic.

Methods

After obtaining the required permission, the researcher extracted a list of nursing internship students in an educational hospital from May 2 to July 10, 2021. A total of 15 nursing internship students were selected using purposive sampling. Students were in the 7th and 8th semesters and had spent a period of nursing internship during the COVID-19 pandemic in one of the hospitals affiliated with Shahid Beheshti University of Medical Sciences, Tehran, Iran including Loghman Hakim, Imam Hossein, Taleqani, Labbafinezhad, and Shohadaye Tajrish hospitals. Moreover, they had passed the clinical courses according to the nursing internship program. The interviews took place after the end of the students' internship course, which was 15 months after the COVID-19 pandemic.

Some of the interviews were conducted via telephone and some in person in hospitals and wards where the students were present. Overall, data were collected through in-depth and semi-structured interviews. The main questions asked during the interviews were: "Would you please describe your experience of a day of nursing internship in the COVID-19 pandemic hospital?", "Have you ever provided care for a COVID-19 patient?", and "What problems did you encounter during the nursing internship course?" Further, some probing questions such as "Would you please explain more and give examples" were asked to understand the clinical education experience better.

The interviews continued until data saturation i.e., to the point where no new information was obtained (n=15 participants). Each interview lasted between 40-50 minutes. Data recording, transcription, and analysis were performed using MAXQDA (version 10). Data were analyzed using the conventional content analysis method proposed by Graneheim and Lundman (22). After each interview, the researcher listened to the recorded data carefully and then transcribed them verbatim in Word 2016. Each interview was a unit of analysis and the meaning units of each text were identified and then converted into initial codes. The initial codes that had the same meaning and concept were converted into summary codes. Codes were merged into subcategories based on common characteristics and several subcategories formed the main categories or themes based on their similarities.

Data trustworthiness was ensured using the criteria

proposed by Lincoln and Guba including credibility, dependability, confirmability, and transferability (23). The researcher was involved in data collection and analysis for five months. To increase dependability, eight participants and two qualitative research specialists with a doctorate in nursing transcribed and reviewed the interviews, reviewed field notes, compared data constantly, discussed categories and subcategories, and extracted codes. Besides, to ensure confirmability, all stages of the research, including data collection, data analysis, and extraction of codes and classes were described in such a way that other people could read them. Furthermore, the participants were selected with maximum diversity (students in different wards).

Results

The findings of this study were derived from the analysis of the data of 15 interviews, 80% of which were conducted with females. The students' mean age \pm SD was 22.46 ± 0.63 at the time of the interview. Table 1 presents the participants' demographic variables.

The main themes identified in this study were paradoxes in clinical education path (with two categories including impaired learning and effective clinical education) and psychological pressure in patient care (with two categories including student protection and safety concerns and disruption of professional interaction).

The results of the study showed nursing internship students experienced paradoxes in clinical education path during the COVID-19 pandemic. In the opinion of most participants, impaired learning was due to poor planning for facing unpredictable situations and adapting to them. On the other hand, practical training is delivered through creativity which results in gaining clinical skills and competency despite the existing limitations.

Table 1. Demographic characteristics of the participants

Code	Gender	Semester	Work experience
1	Female	8	Yes
2	Male	7	No
3	Female	8	No
4	Male	8	Yes
5	Female	8	No
6	Female	7	Yes
7	Female	7	No
8	Female	8	No
9	Female	7	No
10	Female	7	No
11	Female	7	Yes
12	Female	8	No
13	Female	7	No
14	Male	7	Yes
15	Female	7	No

Psychological pressure in patient care was the second theme of this study. In addition to the pressures imposed by the COVID-19 pandemic on nursing internship students, patient care without the required equipment as well as safety and protection concerns led to psychological challenges and disrupted professional interactions that overshadowed clinical education. The two main themes of the study were divided into 4 categories and 15 subcategories (Table 2).

Paradoxes in clinical education path

Impaired learning

Impaired learning was the first category of the *paradoxes in clinical education path*. During the COVID-19 pandemic, special conditions in the hospitals disrupted the learning process. Frequent cancellation of clinical education programs disrupted learning due to student protection. Besides, busy schedule, increased workload, absenteeism, and an increase in the number of students impaired the quality of clinical education.

1. Acquisition of imperfect clinical skills

Nowadays, empowering nursing internship is a critical concern. Nursing internship students believed that the quality of clinical education was not good during the COVID-19 pandemic, and only students had to take the nursing internship as scheduled. An 8th-semester nursing internship student described the nursing internship experience during the COVID-19 pandemic in the oncology ward, “Before COVID-19, we had a 4.5- to 5-month nursing internship from October to February. This was a very good learning opportunity. During the COVID-19 pandemic, the internship course was interrupted for the first few weeks. It was also canceled during COVID-19 peaks and our attendance hours were reduced during the remaining time, and this had a great impact on the quality of education” (Participant 3).

2. Situational management

According to the nursing internship students, administrators did not have appropriate plans for students during the COVID-19 pandemic. However, some changes were unavoidable; at the onset of the COVID-19 pandemic, many students and parents hesitated to let their children attend clinical wards due to the fear of infection. Besides, the managers felt pressure for planning. A student stated his experience of failure in situational management during the COVID-19 pandemic in the oncology ward, “No one was well prepared for the COVID-19 pandemic. There were a lot of inconsistencies and disorganizations. We messed up in some places. The situation was not clear, but in general, I think they could have improved their management. From 1 to 10, if I want to score, I do not say 1, but they could have increased it to 6 or 7 because it was annoying” (Participant 1).

3. Distance from clinical curriculum

Distance from the clinical curriculum was another cause of impaired learning in clinical education during the COVID-19 pandemic. Failure to attend the relevant wards according to the curriculum topics due to the lack of patient referrals affected the learning and experiences of the participants. A student in the cardiology ward expressed his experience, “The number of referrals has decreased. Patients used to visit more frequently. It was very crowded in the angiography ward where we were in the 4th semester. We used to administer two full medicine trays each time. However, now, the number of elective surgeries has decreased very much except for cases where, for example, the patient has had MI and has to undergo angiography. It naturally affects the learning of skills and experiences” (Participant 2).

Effective clinical education

Effective clinical education constitutes the second category of *paradoxes in clinical education path*. The purpose

Table 2. Subcategories, categories, and main themes extracted from the participants’ experiences

Themes	Categories	Subcategories
Paradoxes in clinical education path	Impaired learning	Acquisition of imperfect clinical skills Situational management Distance from clinical curriculum
	Effective clinical education	Creativity in education Effective use of minimal cases for learning Adequate clinical performance
Psychological pressure in patient care	Student protection and safety concerns	Personal protection Complications of using protective equipment Non-adherence to health protocols Escaping from the COVID-19 ward
	Disruption of professional interaction	Mandatory occupational distance Uncertain conditions for students Ignoring the students’ presence Changing the attitude toward the nursing profession Adaptation to the situation

of *effective clinical education* is to teach the necessary qualifications, skills, and professional behaviors so that the students would be able to achieve clinical competencies and skills. Creativity in education, effective use of minimal cases for learning, and adequate clinical performance were among the benefits of the internship experience during the COVID-19 pandemic.

1. Creativity in education

In this pandemic, creativity increased considerably in all professions. Considering that the nursing profession plays an essential role in the healthcare system, the ability to provide creative clinical education plays an important role in improving the quality of education and working conditions, and ultimately promoting community health. A nursing student in the surgical ward described one of the creative ideas, *“We had many ideas in this regard, and they accepted them during the first days after the outbreak, but not later. We suggested that the same training that was supposed to be provided to the ward patients be provided to COVID-19 patients via telephone, considering the emergency conditions”* (Participant 4).

2. Effective use of minimal cases for learning

During the COVID-19 pandemic, non-COVID-19 patients delayed their treatment to prevent the spread of COVID-19 and infecting themselves and their families. Therefore, the number of non-COVID-19 cases was reduced, and the use of these minimal cases was necessary for learning. A student described his experience during the pediatric internship, *“If this disease were not out there, we would have visited more cases. Now many people do not go to the hospital because of stress. There were almost a lot of surgical patients and the number of children decreased in our ward, but we tried to learn even with this limited number of cases. I remember the nursing internship in the pediatric ward. We had different cases, but we did not have the opportunity to assess everything. However, the nursing internship in the pediatric ward was limited to four children during the entire period and we learned everything from these four cases”* (Participant 5).

3. Adequate clinical performance

Although the COVID-19 pandemic has had short- and long-term positive and negative effects on education, it has led policymakers and managers to plan more consciously to overcome associated challenges. Therefore, students performed well and acquired adequate skills during clinical education. A nursing internship student in the pediatric ward described the clinical practice experience during the COVID-19 pandemic, *“I think the practical course is very different from the previous semesters. The 7th and 8th semesters of our internship coincided with the COVID-19 pandemic. I think the situation was the same before the COVID-19 pandemic. Now, maybe, for example, there is no*

consideration such as going next to the COVID-19 patients or adjusting the device during our internship period, but I think the conditions were the same as pre-COVID-19 time. It did not make much difference because we asked the seniors and they said nursing internships are the same way but CCU and ICU nursing internships may be different, but I do not think they have no effect” (Participant 8).

Psychological pressure in patient care

The other main theme of the study i.e. *psychological pressure in patient care* was divided into two categories including *student protection and safety concerns* and *disruption of professional interaction*. The threatening and high-risk nature of care during the COVID-19 pandemic exacerbated the psychological stress and understanding of the critical situation to maintain safety, prevent transmission, and adapt to new conditions.

Student protection and safety concerns

Caring for patients with infectious diseases, including COVID-19, is one of the challenges facing the healthcare staff. In addition, the safety of patients and staff plays an essential role in the prevention and spread of diseases.

1. Personal protection

Personal protection was one of the subcategories of student protection and safety concerns. Personal protection plays a key role in maintaining personal and patient safety. A nursing internship student in the emergency ward stated, *“I wash my hands more than before. If I touch something in my workplace, I wash my hands or use alcohol quickly. When I interact with the patient, I’m much more careful and I wear gloves. Now I am vaccinated, but I used to wear a face shield before vaccination”* (Participant 12).

2. Complications of using protective equipment

The use of personal protective equipment such as masks, glasses, and shields is effective in preventing COVID-19. Nevertheless, using such protective equipment is accompanied by various challenges, such as concerns regarding their complexity, bulkiness, and potentially unhealthy and dangerous nature. A nursing internship student in ICU shared his experience, *“Due to my COVID-19 infection, I was a little short of breath and I did not dare to go to the ward with one mask; thus, I wore two masks. Well, this bothered me a little, I had shortness of breath and I had to put on two masks”* (Participant 10).

3. Non-adherence to health protocols

Non-adherence to health protocols by students was the third subcategory of *student protection and safety concerns*. Failure to use a mask as well as the non-adherence to health protocols was the main cause of the new peak of the disease in society. One of the participants in the pediatric ward stated, *“It depended on the situation, we wore masks*

and if some wards were more suspicious, we used shields. It was difficult, but we had to comply. However, not all nursing students complied with these protocols” (Participant 5).

4. Escaping from the COVID-19 ward

Escaping from the COVID-19 ward was another subcategory of *student protection and safety concerns*. According to the guidelines of the Ministry of Health, regarding the voluntary presence of the nursing interns in the wards by submitting a written request to the faculty, some students did not want to attend the COVID-19 wards due to stress and lack of experience. In this regard, a student expressed his experience, “Many of us did not want to be in the COVID-19 wards because we could not do anything special and we had little experience. We were also under a lot of stress due to the fear of getting infected” (Participant 4).

Disruption of professional interaction

Disruption of professional interaction was the second category of psychological pressure in patient care. Inter-professional interaction is a key element in patient care that plays an important role in clinical effectiveness, patient satisfaction, and service quality improvement, especially during the COVID-19 pandemic. Effective teamwork with professional interactions deals with the growing staff shortage and training costs. Interactions between staff and students are no exception and can be a solution to this crisis. Disruption of professional interaction can cause problems in teamwork and might lead to negative outcomes for patients, including patient safety.

1. Mandatory occupational distance

Mandatory occupational distance to prevent disease transmission was a major challenge in care systems to control the COVID-19 pandemic. A nursing internship student expressed his experience of the mandatory occupational distance during his internship, “Before COVID-19, we went to every ward; we talked to everyone; there was a crowd in front of the nursing station; and there was no problem. But now, we cannot enter the patient’s room together. I think the situation has become more difficult for them. The relationships and interactions are reduced which can have negative effects” (Participant 2).

2. Uncertain conditions for students

Uncertain conditions for students was another subcategory of *disruption of professional interaction* during the COVID-19 pandemic. While medical and paramedical students were major personnel in the fight against COVID-19, their capacity became useless and uncertain. Moreover, the medical staff became exhausted, and it was vitally important to use their capacity. In this regard, a nursing internship student shared his experience, “After the COVID-19 pandemic, nursing schools were completely closed for the first few weeks, and

we had cancellations during the disease peaks. Moreover, our attendance duration was reduced during the remaining time. There was a kind of confusion, and no one was ready for such a pandemic. There were a lot of contradictions and a lack of planning. We really messed up in some places because the situation was not clear” (Participant 7).

3. Ignoring the students’ presence

Ignoring the students’ presence in the ward was another subcategory of the *disruption of professional interaction*. In addition to endangering the health of students, such neglect leads to a loss of trust between medical staff and students and negative consequences for students’ attitudes toward their profession. In this regard, a student in the pediatrics ward expressed his experience, “It would have been very good if the ward officials had informed us of the patients with suspected COVID-19 disease. Some hospitals would have cooperated well if they had informed us about the suspected cases so that we would take the equipment with us, even if we had to pay for the device and visit the patient with personal protective equipment. However, some hospitals did not inform students and they sometimes ignored them” (Participant 5).

4. Changing the attitude toward the nursing profession

Nursing students had neither job security nor life security during the COVID-19 pandemic. Everyone’s attitude toward nurses has changed these days. Nurses are at the forefront of general care and play a vital role in future care systems. A nursing internship student in the angiography ward stated, “Two years ago, I did not have this feeling about my profession, and I did not consider nursing to be a very difficult job, but now I feel that we are more important, and my mindset about the nursing profession has changed” (Participant 2).

5. Adaptation to the situation

The COVID-19 pandemic has had a major impact on people’s lives. Many students face challenges that can be stressful and overwhelming, possibly leading to intense feelings. Therefore, adapting to stressful situations is very important in promoting physical and mental health. A nursing internship student in the angiography ward stated, “Anyway, we had to adapt to the situation somehow. Initially, it was a bit difficult; we had to wear two-layer masks; we were not used to them. I saw myself and my friends who were annoyed by these things because we were not used to it, but now we are. In the beginning, it was unknown. There were more fear and stress, but over time it became more common. You have to adapt yourself to this situation because it will be there for a few more years” (Participant 2).

Discussion

The present study explored the experiences of nursing

internship students during the COVID-19 pandemic in Iran. The two main themes identified in the study were *paradoxes in clinical education path* and *psychological pressure in patient care*. The results of the present study highlighted changes occurring in the wards due to the COVID-19 pandemic and shorter shift hours. In addition, the non-COVID-19 patients' visits led to busy schedules and situational management, which seems to be a paradox in clinical education. During the COVID-19 pandemic, clinical teaching and learning of nursing students were disrupted to protect students against COVID-19. Being away from clinical settings can be one of the effective factors on the clinical competence of students.

In a study on students' understanding of effective clinical education and the behavior of instructors by D'Costa and Swarnadas, students perceived that all clinical teaching skills and behaviors are important, and clinical learning is greatly affected by clinical teachers who manifest effective clinical teaching skills and behaviors (24). Furthermore, the results of the present study showed that students gained adequate clinical skills through creativity and effective use of the minimum cases in the ward. In line with the results of the present study, Manoochehri et al, in a qualitative study, showed work experience in novice nurses can affect their performance, personality, and clinical competency (25).

Another theme identified in the present study was the psychological pressure in patient care. The COVID-19 pandemic turned nursing into a stressful job due to the nature of the disease and the high workload of the staff and nursing internship students. Therefore, it was essential to adapt to the complex and unpredictable conditions of the patients.

Student protection and safety concerns in nursing internship played a vital role in clinical education during the COVID-19 pandemic. Personal protection was a factor causing safety concerns among nursing internship students. Mokhtari et al declared that the environment was the most important factor and the rules and regulations were the least important indicators in the use of personal protective equipment by nurses during the COVID-19 pandemic (26).

In a qualitative study, Kalateh Sadati et al showed all participants were exposed to a mysterious world created by the virus. No one had a good understanding of the new virus (27). Poor preparedness, perception of the worst danger, family support, social stigma, and self-sacrifice were also common under these conditions. Immediate preparation of facilities in such outbreaks is inevitable. In another study, Sperling found that the majority of nurses had challenges providing care without adequate equipment or support (28). Besides, in a study on nursing students and interns, Alshutwi showed most of the participants had a good knowledge of providing care for these patients but showed a neutral desire to

care for them (29). However, Hernández-Martínez et al showed three out of four students in Spain were willing to provide health assistance. This could be because after the declaration of the alarm status in Spain caused by the COVID-19 pandemic and the collapse of the health system, medical and nursing students participated in voluntary health support programs in the wards (30).

Regarding non-adherence to health protocols, although students seemed to use personal protective equipment such as masks and gloves, they did not fully adhere to health protocols. In line with these results, Afeng-Nkansah et al showed even though there was growing awareness among the staff about adhering to infection prevention protocols, most nurses did not adhere to them (31).

Escaping from the COVID-19 ward was another subcategory of the second main theme identified in this study. Refusing to attend COVID-19 wards was very common due to inefficient clinical skills, lack of awareness, and fear of disease transmission. Kalateh Sadati et al described the nurses' experience of the COVID-19 pandemic as feeling the worst sense of danger, social stigma, self-sacrificing commitment, and immediate but inadequate preparation for this unpredictable outbreak (27). The COVID-19 pandemic as a global crisis damaged students' perceptions of different roles and functional tasks (31).

The disruption of professional interaction during the COVID-19 outbreak changed people's lives dramatically. Mandatory occupational distance may have secondary consequences at the individual, community, and even family levels. Frequent cancellation of clinical training programs during the COVID-19 peaks and students' and families' concerns about attending nursing internship courses led to their indecision and limited professional interactions. They were unable to access friends and do routine educational activities. Ignoring the students' presence in the ward was another challenge for nursing internship students which resulted in stress, anxiety, and dissatisfaction. The results of the study by Fernandes et al showed that the COVID-19 epidemic taught us lessons that need to be considered in future nursing planning (32). In line with the results of the present study, Chen et al pointed out that key challenges of nursing during the COVID-19 pandemic reduced the gap in critical knowledge by providing support. Inadequacies in the healthcare system, prevention of staff shortage, psychological and social support for patients, and healthcare professionals' efforts to control and prevent COVID-19 challenges remain ongoing. During the COVID-19 pandemic, nursing internship students needed to interact with the clinical environment and adapt to the situation despite psychological stress so that they could graduate in peace, and acquire clinical competency (33). In a study based on the grounded theory, Kim et al declared "growing as a proficient nurse alongside comrades on the COVID-19

frontline” as the core category. Providing regular basic and professional training during such emerging infectious diseases is essential to train specialist nurses (34).

The nursing profession has always faced challenges through professional interactions, and these challenges have recently increased with the COVID-19 pandemic conditions as nurses are at the forefront of treatment. Clinical education and patient-student, nurse-student, and even professor-student interactions face many challenges. The limitation of this study was that due to the COVID-19 pandemic, in-person interviews with nursing internship students were not possible; thus, researchers had to use telephone interviews to elicit perspectives of nursing internship students.

Conclusion

According to the findings of this study, nursing internship students faced numerous challenges in their clinical education during the COVID-19 pandemic. To improve nursing education programs in such crises, it is recommended to conduct studies on the effectiveness of distance learning methods in clinical education and the use of interventions to improve students’ mental health. In general, clinical audits in similar crises can promote clinical nursing education.

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Competing Interests

The authors declared no conflict of interest.

Ethical Approval

This study was approved by the ethics committee of the Clinical Research Development Unit of Loghman Hakim Hospital, with the ethics code IR.SBMU.RETECH.REC.1400.195.

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