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A year and a half later: Clinical experiences of intern nursing students in the COVID-19 Pandemic: A constructivist grounded theory

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ARTICLE INFO

Keywords:

COVID-19
Clinical clerkship
Experience
Grounded theory
Nursing students
Qualitative research

ABSTRACT

Aims: The aim of this study is to develop a theory to explore the clinical experiences of interns in clinical practice during the COVID-19 pandemic.

Background: The COVID-19 pandemic is a serious public health problem influencing the healthcare systems worldwide. Nursing students were excluded from clinical practice for a long time due to the pandemic. However, the prolonged and uncertain pandemic conditions required the inclusion of fourth-year nursing students in clinical practice.

Design: A qualitative research design based on the Constructivist Grounded Theory approach was used in this study.

Methods: The research data were collected from fourth-year nursing students doing an internship at a university hospital in Turkey. Fourteen nursing students (12 females and 2 males) in the clinical practice during the COVID-19 pandemic with a mean age of 22.64 ± 0.225 were included in the study. In the collection of data, firstly, the purposeful sample selection method, then the theoretical sample selection method was used. On the online interview platform, the data were collected through individual interviews with those agreeing to participate in the study between July 2021 and August 2021 using a semi-structured interview form. The results were analyzed with initial, focused and theoretical coding. The research was reported based on the Consolidated Criteria for Reporting Qualitative Research guide.

Results: A core category and five main categories emerged in the study. The core category is a lonely bird and the main categories are emotions, challenges, coping methods, nursing experiences and solution suggestions.

Conclusions: This research can help create a conceptual framework of clinical practice experiences of intern nursing students during the COVID-19 pandemic. It is thought that intern nursing students need to be supported by reliable authorities before and during the internship. Intern students stated that they experienced many emotions together and felt alone. Our study results revealed that intern nurses need more psychological support, especially during the pandemic period. A remarkable finding of the research is that interns now think of themselves as professional nurses. For interns to develop effective coping methods, intensive and regular training should be organized in cooperation with the hospital and school administration.

1. Introduction

The COVID-19 pandemic first broke out in Wuhan, China and spread rapidly across the globe (Liu et al., 2020). Scientists identified the first novel type of coronavirus on January 7, 2020. The first case was confirmed in Turkey on March 10, 2020 (Republic of Turkey Ministry of Health, 2020). Special equipment and healthcare professionals are

needed to prevent such outbreaks (Gomez-Ibanez et al., 2020). It is reported that intern nurses are needed especially in pandemic situations (Yonge et al., 2010). Interns were employed in accordance with the SND/232/2020 decision to struggle with the COVID-19 crisis in Spain (Gomez-Ibanez et al., 2020). In the UK, to overcome the increased workload in the COVID-19 pandemic, 2nd and 3rd year nursing students were asked by Health Education England (HEE) to sign up to undertake

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extended placements. Nursing students were recruited as auxiliary health staff (Health Education England, 2020). Many universities in Turkey have suspended clinical practices due to COVID-19. However, some universities can make clinical replacements during the COVID-19 pandemic with the decision of the faculty (Akdeniz, 2021). This shows that intern nursing students, like all other health professionals, are at risk (Estalella et al., 2021). In SARS and MERS outbreaks, nursing students perceived themselves at high risk (Elrggal et al., 2018; Wong et al., 2004). The aim of this study is to develop a theory to explore the experiences and emotions of intern nursing students during the COVID-19 pandemic.

2. Background

The COVID-19 pandemic is a serious life-threatening condition. The pandemic caused not only the risk of death but also psychological problems (Cai et al., 2020; Chen et al., 2020; Tang et al., 2020). An internship is a stressful process for nursing students (Macauley et al., 2018). The coinciding of the COVID-19 pandemic with this challenging period has caused students in the clinical practice to further experience many negative emotions like anxiety, fear of contagion and uncertainty (Collado-Boira et al., 2020; Savitsky et al., 2020). A study conducted in China showed that nurses had higher anxiety levels than physicians during the COVID-19 pandemic (Huang et al., 2020). A study by Alsolais et al. (2021) revealed that approximately half of the nursing students displayed signs of depression. In another study, nursing students were reported to be highly anxious (Savitsky et al., 2020). A study conducted in Turkey indicated that more than half of nursing students need psychological support during the COVID-19 pandemic and are insufficient to cope with this situation (Okuyan et al., 2020). The concept of coping is the thoughts or actions that individuals activate to manage adverse situations. The COVID-19 pandemic has also led to changes in the way individuals cope. Coping methods are essential in preventing anxiety and stress-triggered health problems (Savitsky et al., 2020). It is reported that social support acts as a buffer for health professionals in times of crisis and is good for mental health (Karaca et al., 2019). Differences in coping methods may be due to the presence of social support, family socioeconomic level and fear of contracting COVID-19. It is thought that defining the coping methods of interns will be effective in preventing the negative effects of COVID-19.

Due to the COVID-19 pandemic in Turkey, intern nurses could not continue the clinical practice for almost a year and a half. The lack of clinical practice experience may cause intern nurses to feel inadequate because they consider it an opportunity (Casafont et al., 2021). In a study conducted in Australia, 77.7 % of nursing students wanted to undertake clinical practice during the COVID-19 pandemic (Perkins et al., 2020). However, unlike their normal internship periods, interns also had to face the effects and uncertainty of the COVID-19 pandemic. Due to the rapid spread of the COVID-19 pandemic, many healthcare systems have collapsed. Governments have included nursing seniors in the workforce with their new health policies. Therefore, studies involving senior nursing students during the COVID-19 pandemic were mostly carried out in the first wave of the pandemic (Casafont et al., 2021; Collado-Boira et al., 2020; Eweida et al., 2020; Gomez-Ibanez et al., 2020). However, there is no such practice during the first wave of the pandemic in Turkey. A year and a half after the COVID-19 pandemic emerged, some nursing schools sent their students to clinical practice, so it is important to explore the experiences of nursing students included in clinical practice in the second wave of the COVID-19 pandemic in Turkey. Therefore, gaining insight into interns' internship experiences during the COVID-19 pandemic, conceptualizing their experiences and creating an explanatory framework will contribute to increased sensitivity to interns' experiences and needs.

3. Method

3.1. Study design

This research was based on the interpretive paradigm. The interpretive paradigm is frequently used in grounded theory (Günbayi and Sorm, 2018). Grounded theory is a methodology used to construct theories about significant events in people's lives (Glaser et al., 1968). Theoretical data on the internship experience of interns during the COVID-19 pandemic are limited. The constructivist grounded theory study design is used to provide a systematic approach to data collection and analysis (Charmaz, 2017). In the constructivist grounded theory, the researcher interacts with the participants and the data. For this research, the constructivist approach was chosen to explore the interns' social processes and human behaviors and form the philosophical basis of the study (Charmaz, 2006). The constructivist approach also provides the formation of the most appropriate theory for the statements of the participants (Charmaz and Thornberg, 2021).

3.2. Research team and reflexivity

Three researchers, a professor, a lecturer and a research assistant with clinical and academic experiences, conducted this research. Not to affect the ideas and thoughts of intern students in the research, the professor and research assistant were not involved in the data collection procedure. The lecturer has 10 years of pediatric nursing experience and theoretical and practical experience in psychiatric nursing. It was thought that these qualities would facilitate communication and empathy. In addition, as she did not have any theoretical or practical contact with the intern students, it was anticipated that the students would better convey their clinical experiences in the COVID-19 pandemic without being affected.

3.2.1. Setting and participants

This research was conducted with fourth-year nursing students at a University Hospital, where they did a full-time internship during the COVID-19 pandemic. The population consisted of fourth-year nursing students ($n = 220$). To diversify the experiences of the participants and provide data richness, 14 ($n = 14$) intern students from different clinics were included in the sample. It was important to determine the clinical experience of nursing students in intensive care units, where critically ill patients are cared for during the COVID-19 pandemic and the bed capacity is almost full. For the richness and diversity of the data, almost half of the participants consisted of intern nursing students doing clinical practice in the intensive care unit. The research team included nurses working in intensive care units and the services where the number of patients per nurse is high and nursing students who can easily express their feelings and thoughts. In the Faculty of Nursing, fourth-year nursing students are required to do clinical practice before graduation. The shifts of the interns are (08.00/16.00 or 16.00/08:00). Research data were collected outside the working hours of the interns. The data collection was continued until data saturation was reached (Moser and Korstjens, 2017). Two interns did not want to participate in the study because they reported that they were tired from working too much in the clinic and could not share their experiences.

3.2.2. Inclusion criteria

Inclusion criteria were being a fourth-year student at Akdeniz University Faculty of Nursing, working as an intern nurse during the data collection process and giving verbal consent to participate in the study. There are no exclusion criteria in the study.

3.3. Data collection

The data were collected between July 2021 and August 2021. Prior to the research, preliminary information about the study was given to

the intern students via e-mail. Participants were re-informed by the researcher before the interview and their verbal consent was received. The data were collected by the researcher (D.A.). Due to the COVID-19 pandemic, the interviews were conducted using the Microsoft Teams program, a video conferencing platform (Archibald et al., 2019). Microsoft Teams program interview protocol is presented in Table 1.

In the selection of the participants, the researcher first used purposeful sampling and continued with theoretical sampling. The reason for using purposeful sampling in the first place is to reach various data on the subject and then decide which data should be used (Conlon et al., 2020). All data collected from the first four interviews were transcribed verbatim by the researchers and each interview was emailed to the participants after transcription. In line with the opinions of the participants, the data were revised. An additional question was added as an example of a change made to the interview schedule in line with the data obtained. "Do you think your internship experience has positive aspects? If so, could you please explain?". In addition, the following further clarifying questions were asked by the interviewer ("What did you mean?, Could you talk a little more about this, please? Could you give an example, please?"). After the first four interviews were analyzed, other participants were included to obtain rich data and to gain depth to the theory being developed by using the theoretical sample. Theoretical sampling is an approach that enables creative concepts and theories from the collected data (Charmaz and Thornberg, 2021; McCrae and Pursell, 2016). The questions in the semi-structured interview form were revised in the subsequent interviews to clarify the emerging conceptual categories and finalized. Theoretical saturation is reached when no new information about conceptual categories emerges.

The interviews were audio and video recorded and the "Intern Nurse Information Form" prepared and filled by the researchers. The "Semi-Structured Interview Form" was created by the researchers in line with the literature (Casafont et al., 2021; Dos Santos, 2020; McCloughen et al., 2020; Roca et al., 2021). Table 2 shows the semi-structured interview form.

During the interview, the researcher took note of the notable keywords and asked further questions to obtain more detailed information. Each audio and video recording were numbered and recorded by the researchers. Interviews averaged 30–35 min duration. The data obtained from the interviews were transferred to the External Hard Disk with password entry.

3.4. Data analysis

In this study, the data analysis method proposed by Charmaz (2006) for constructivist grounded theory was used. The data analysis method consists of three stages: initial, focused and theoretical. In this analysis method, data collection and analysis were performed together. Initial coding is the first stage that involves tagging each word (Word-by-Word Coding) or line (Line-by-Line Coding). At this stage, researchers

Table 1
Microsoft teams interview protocol.

1. The researcher prepared a private meeting room for each participant in the Microsoft Teams program.	5. After the audio and video recording started, the "Informed Consent Form" was shared with the participants, and their verbal consent was obtained.
2. The researcher started the meeting on the day and time convenient for the participants.	6. The researcher recorded the socio-demographic characteristics of the participants.
3. Participants logged in by clicking on the meeting link created by the researcher.	7. The researcher shared the semi-structured interview form with the participant and started the interview with the first question.
4. The researcher asked the participants for permission for audio and video recording.	8. At the end of the interview, the researcher stopped the video and audio recording with the permission of the participant.

Table 2
Semi-structured interview questions.

Research areas	Questions
Exploring the care experiences and feelings of intern students during the COVID-19 pandemic	How would you describe your caregiving experience during the COVID-19 pandemic? Do you think your internship experience has positive aspects? If so, can you please explain?
Identifying the difficulties experienced by intern students in the COVID-19 pandemic and determining coping strategies	Do you think your internship experience has negative aspects? If so, can you please explain? How have you managed your emotions during this experience?
Determining the suggestions of intern students for problems related to care	If there was another pandemic after this one is over, what changes would you like to do in the care delivery?
Additional clarifying questions	What did you mean?, Could you talk a little more about this, please? Could you give an example, please?

inductively obtained a lot of information (Charmaz, 2006). Data collected from the first four participants were carefully analyzed by the research team. The research data were analyzed in terms of similarities and differences and gathered under different headings. Research data began to be coded around the first concept that emerged. To make a more detailed analysis and to clarify the concepts, the researchers made constant comparisons with questions such as "What is said, who thinks what or why". The concepts were verified by constantly comparing the findings with the questions we asked. Focused coding is the second major phase of data analysis and categories are created by focusing on the most outstanding and analytically meaningful codes obtained from the analysis of initial coding (Charmaz, 2014). Finally, theoretical coding was done in the analysis of the data. Theoretical coding provides the conceptualization of the relationship between the basic codes and thus the formation of the theory (Charmaz, 2006). Simultaneous memos and continuous comparisons were made between the categories, memos and fieldnotes. In addition, data were meticulously coded by all researchers. Analysis with memo writing and continuous comparative methods showed that the concept of 'I felt like a bird in a cage abandoned in a hospital' was the core category experienced by interns during the COVID-19 pandemic. During the analysis, the researchers did not use any program to familiarize themselves with the data and held meetings throughout the analysis process until they reached a consensus on the differences and similarities between subcategories and categories. As a result of the meetings, the researchers reached a consensus.

3.4.1. Rigor and quality criteria

In this study, the standards recommended by Charmaz (2014) were followed for rigor and quality criteria (Charmaz, 2014). These criteria are credibility, originality, resonance and usefulness. For the credibility criterion, interns working in different clinics were included to obtain rich data in the research and comprehensive notes were taken from the interviews. To select the most appropriate unit of meaning from the data and evaluate the scope of the categories, three researchers held meetings and reached a consensus. To ensure originality, the researchers conducted a literature review to determine whether the categories derived from the research revealed a new concept. In addition, by taking short notes, reflexivity was also included in the process. Resonance was achieved by ensuring the intelligibility of the categories obtained from the research through the control by the interns. The criterion of usefulness was accomplished by covering the general process of the categories and theory, interns' experiences and providing a different perspective to future research. To increase reliability, the data were translated from Turkish to English by an independent translator. Then, the Turkish and English versions of the translated data were compared. In addition, efforts have been made to avoid bias in hypotheses and analysis.

Transcripts were checked by three researchers. All authors carefully reviewed the data and participated in the entire analysis process to increase internal validity. An external expert was consulted for the confirmability of the results and to reduce the influence of the researchers on the results. The external expert came to the same conclusion as the research team. The research was reported based on the Consolidated Criteria for Reporting Qualitative Research (COREQ) guideline (Tong et al., 2007). For example, within the scope of the description of sample criteria, the characteristics of the participants like age, gender, clinic, place of residence, being infected with COVID-19 and willingly choosing the profession were explained. Within the scope of the non-participation criterion, the number and reasons of the participants who met the inclusion criteria but did not participate in the research were expressed.

3.5. Ethics approval

This study was approved by the University Medical Faculty Clinical Research Ethics.

Committee (Date: 26.05.2021, Document ID: KA EK-362). The audio and video recordings of the participants were coded by the researchers to ensure confidentiality. The participant was informed that s/he could withdraw from the study whenever s/he wanted. This research was conducted according to the general principles of the Declaration of Helsinki (World Medical Association Declaration of Helsinki, 2013).

4. Results

According to the results, the mean age of the participants ($n = 14$) was 22.64 ± 0.225 % and 85.7 % ($n = 12$) were female; 57.1 % ($n = 8$) lived in the dormitory during the pandemic and 64.3 % ($n = 9$) willingly chose their profession. Table 3 shows the characteristic of the participants.

The analysis of the research findings revealed five main categories, 16 subcategories and one core category. The core category is: "I felt like a bird in a cage abandoned in a hospital" and the main categories are emotions, challenges, coping methods, nursing experience and solution suggestions (Fig. 1). Table 4 shows the categories and subcategories of interns' internship experiences.

4.1. Core category: I felt like a bird in a cage abandoned in a hospital

The core category included the perception that all interns felt lonely while in clinical practice during the unprecedented COVID-19 pandemic. Interns have taken social isolation measures not to transmit the virus to the people around them during the COVID-19 pandemic. They reported that they felt lonely because they were away from their families and friends. Another factor that causes interns to feel lonely is that they must individually cope with the difficulties of being an intern

during the COVID-19 pandemic. The statement of the participant, 'I felt like a bird in a cage abandoned in a hospital.' [S 4], was effective in the emergence of the core category of this study. Each intern developed individual coping methods. Although the interns reported different emotional reactions and difficulties, they reported that being involved in clinical practice and touching patients during the pandemic was a unique experience.

4.1.1. Main category: Emotions

The Emotions category includes five subcategories: sadness, pride, fear, anxiety and loneliness. In this category, the participants expressed their positive and negative feelings about their internship experiences. The positive emotions are the pride of being an intern during the COVID-19 period and the happiness of caring for patients in the internship after a long time:

'It was very important for interns to continue their internship during the pandemic and it made us feel proud.' [S1].

'It is a unique experience to be in the hospital during the COVID-19 pandemic.' [S 13].

'Internship is like the trailer of the profession and I liked it very much.' [S 5].

'We were very enthusiastic and continued our internship with pleasure. We felt like we were nurses. Despite the risks of the hospital environment, I think it is beneficial.' [S 2].

However, most participants also reported negative emotions such as sadness, fear, anxiety and loneliness. They were afraid of transmitting the COVID-19 infection to someone else because many of them lived in dormitories. The sudden death of patients due to COVID-19 infection caused sadness. They were not able to provide adequate nursing care to the patients, so they felt sad.

'It was very painful to see people die in such a short time because of the pandemic.' [S 1].

'I was afraid of infecting others. The main reason for me to be careful and afraid outside the hospital was the possibility of carrying the virus from outside to the hospital rather than from the hospital to the outside. I certainly did not want the virus to be transmitted because of me, I was worried not for myself but the patient.' [S 10].

'You see a patient, but the patient dies due to the pandemic; this situation affected me deeply. It was very painful to see people die in such a short time.' [S 1].

'The hospital was a risky area and I thought everyone could be positive. I didn't know exactly what I was going to face.' [S 2].

'We were also supposed to provide psychological care to the patients, but we were spending less time with the patient. Could I provide more care?' [S 1].

4.1.2. Main category: Challenges

Intern nursing students faced some difficulties both due to the COVID-19 pandemic and their internship after a year and a half. These

Table 3
Characteristic of the participants.

	Age	Gender	Clinic	Place of residence	Status of contracting COVID-19	Status of choosing the occupation willingly
S1	22	Female	Intensive care unit	Dormitory	No	Yes
S2	23	Female	Surgical service	Dormitory	No	No
S3	24	Male	Intensive care unit	Student's house	No	No
S4	22	Female	Intensive care unit	Dormitory	No	Yes
S5	22	Male	Surgical service	Student's house	No	Yes
S6	22	Female	Internal medicine service	Family	No	Yes
S7	22	Female	Intensive care unit	Dormitory	No	No
S8	22	Female	Internal medicine service	Dormitory	Yes	Yes
S9	24	Female	Intensive care unit	Family	No	No
S10	23	Female	Intensive care unit	Dormitory	No	Yes
S11	22	Female	General pediatrics service	Family	No	Yes
S12	22	Female	Obstetrics service	Family	Yes	Yes
S13	23	Female	General pediatrics service	Dormitory	No	No
S14	24	Female	Obstetrics service	Dormitory	Yes	Yes

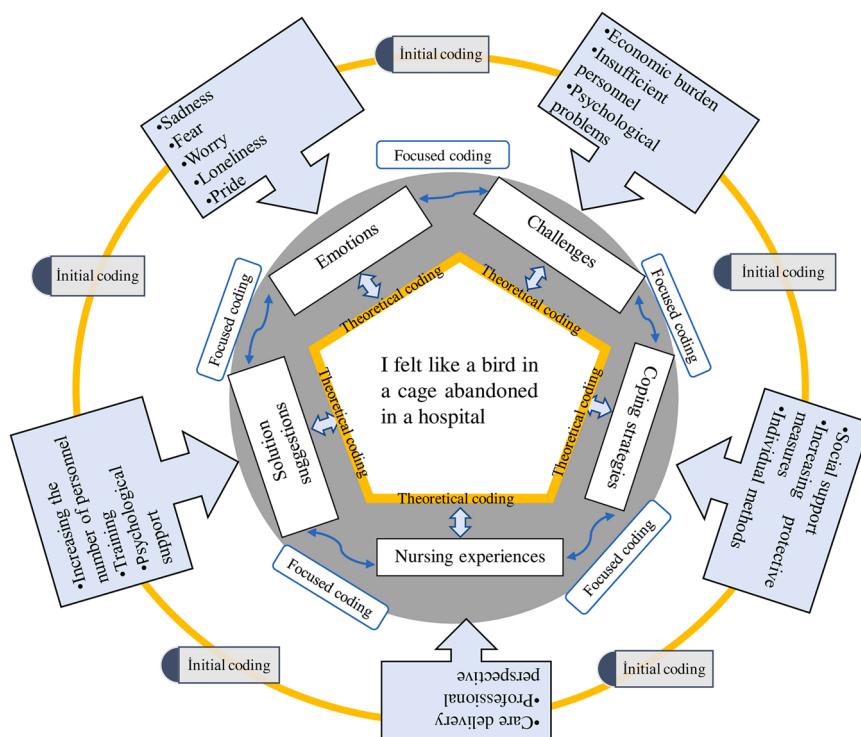


Fig. 1. The conceptual model of the core category, main categories and subcategories.

Table 4
Category and subcategories of interns' internship experiences.

Category	Definition	Subcategories	Supporting evidence
Emotions	Interns' feelings about doing an internship during the COVID-19 pandemic	Sadness Pride Fear Worry	It was very painful to see people die in such a short time because of the pandemic. [S 1] It was a privilege to work in the clinic during the Covid-19 pandemic. [S 10] I thought I would get infected with Covid-19 even due to a trivial illness. [S 4] I had contact with a Covid-19 infected patient, and when I got home, I was worried if I got infected. [S 3]
Challenges	Challenges encountered during the internship	Loneliness Insufficient staff Economic burden Psychological	I felt like a bird abandoned in the hospital during my internship. [S 4] The number of patients per nurse was too high. [S 1] I had to stay in the same house with my friends and had to pay rent and bills. [S 5] Trying not to get infected during the Covid-19 has created enormous psychological pressure [S 8]
Coping methods	Coping mechanisms used against the challenges encountered	Social support Increasing protective measures Individual methods	My friends were always with me. They were aware of my fears when I was in contact. My family was the most supportive, I got the most support from them. They always helped me. [S 9] I felt better using personal protective equipment. [S 5] I mostly got support from humor. [S 3]
Nursing experiences	Contribution of internship experience to the profession	Providing care Professional perspective	Due to the pandemic, we could not practice for 1.5 years. Internship allowed us to close this gap and develop our manual skills and theoretical knowledge. [S 5] After my internship, I embraced the nursing profession more. [S 3]
Solution suggestions	Interns' views on improving the quality of nursing care	Increasing the number of personnel Education Psychological support	I would increase hygiene by increasing the number of cleaning staff and nurses. Thus, I would prevent the spread of the infection [S 5] I would like to give pre-training to nurses. I would like nurses to know what to be careful about when approaching patients. [S 2] Extra bonuses, holidays or different activities could be organized as a source of motivation at certain times during the pandemic. We could also get support from my instructors at school for psychological support. [S 4]

challenges were grouped under the "Challenges" main category. The challenges category includes three subcategories: economic burden, insufficient staff and psychological. Some participants emphasized that due to the heavy workload in the hospital nurses got tired during the COVID-19 pandemic. An intern student's statement on the subject is as follows:

'The number of patients per nurse was too high.' [S 1].

'A nurse is trying to care for 18-19 patients and monitors vital signs

every hour. Without us, they wear out. Some nurses want to quit the profession.' [S 6].

Some reported that because they could not go home during the pandemic, they stayed in dormitories, so, they had to constantly pay for what they ate. Some stayed at home with their friends during this period and had to pay bills such as electricity, water and natural gas. Such situations created an economic burden for them. Intern students' statements are as follows:

'I had to stay in the same house with my friends and had to pay rent and bills.' [S 5].

'During the pandemic, we stayed at the dormitory and had to eat out all the time.' [S 1].

'I had to pay the dormitory every month. This situation caused an extra economic burden. Since the dormitory food was bad, we always had to eat outside.' [S 4].

'As my family's business went bad, of course, they had a financially hard time. I tried to handle it somehow.' [S 8].

Some intern students, on the other hand, reported that they were not affected by the economic situation both because they ate at the hospital as they were there almost four days a week and they stayed with their families and preferred to rest instead of socializing on other days:

'I had to stay in the same house with my friends and had to pay rent and bills.' [S 5].

'I was not affected. I couldn't go to places like cafes because I couldn't socialize anymore. I ate in the hospital.' [S 7].

Intern students faced some difficulties while providing care to patients. They were affected psychologically because they could not spend enough time in the patient rooms due to the pandemic and therefore you could not provide adequate care to the patients. They reported that they felt responsible for providing care and tried to avoid contact with those in their immediate environment as they did their internship at the hospital. This situation caused psychological pressure on students.

'Trying not to get infected during the Covid-19 has created enormous psychological pressure.' [S 8].

'I was afraid of infecting my family.' [S 4].

'Everyone was nervous at that time of the pandemic; you undress in front of the door when you enter the house and wash everything. The first week of the internship was psychologically very hard for me.' [S 3].

'I was terrified that my roommate would be infected. This made me feel guilty. I had worries.' [S 1].

'We could not contact and approach the patient.' [S 2].

'Psychologically the most tiring thing was that we were in the close contact position.' [S 9].

'I was constantly questioning my conscience and wanted to spend more time with the patient.' [S 11].

4.1.3. *Main category: Coping methods*

Coping methods category consists of three subcategories: social support, increasing protective measures and individual methods. Interns tried to fight the COVID-19 pandemic with the support of a close circle of friends. They reported realizing that they needed to support each other in this period:

'We were in close contact with my friends with whom I was doing my internship.' [S 8].

'My friends were always with me. They were aware of my fears when I was in contact. My family was the most supportive, I got the most support from them. They always helped me.' [S 9].

Some students tried to give more care to patients by increasing their personal protective measures, so they slept with a clear conscience:

'I felt more comfortable following the rules.' [S 4].

'I felt better using personal protective equipment.' [S 5].

Interns used individual methods to cope with challenges during the COVID-19 pandemic. Others managed their feelings by getting support from family and their friends with whom they had internship and still others methods such as listening to nature sounds, increasing their internal motivation, massage and listening to music:

'I constantly reminded myself that I am a nurse.' [S 2].

'I tried to manage this process by massaging, listening to music and using mostly non-pharmacological methods.' [S 1].

Some of the intern students had difficulties in managing the COVID-19 period:

'It was very difficult to deliver care in personal protective equipment.' [S 1].

'I had herpes constantly. I had a ringworm problem during the

pandemic. As I got stressed, my hair fell out, as my hair fell out, I became more stressed. I was using lavender scents to calm down, but it didn't work well. I went to a psychiatrist, used Prozac and took medication for a while.' [S 9].

'I could not have managed if my family had not been with me.' [S 14].

4.1.4. *Main category: Nursing experiences*

The 'nursing experience category' consists of two subcategories: care and professional perspective. Interns could not do internship for a year and a half due to the COVID-19 pandemic. During the COVID-19 pandemic, working in the clinic was very valuable for interns. Before starting their professional life, interns increased their clinical practice skills, their thoughts about the nursing profession changed positively, they learned to take responsibility in the clinic and they saw themselves as a part of the clinic:

'My internship made me very different from other nursing students. Internship experience strengthened me professionally.' [S 1].

'I did my internship for four years, but I have never felt more responsible. We really feel like nurses.' [S 2].

'Clinical nurses saw us as nurses ready for the field now. After my internship, my nursing skills improved a lot.' [S 8].

Nursing senior students stated that they developed professional perspectives by gaining clinical experience and practical application skills before entering the profession:

'My professional fear has decreased, and I see myself as a professional nurse now.' [S 12].

'After my internship, I embraced the nursing profession more.' [S 3].

'I felt more competent in nursing. I felt more like a nurse, I could perform the procedures independently.' [S 10].

'My nursing life was divided into two, before and after internship.' [S 9].

4.1.5. *Main category: Solution suggestion*

The category of solution suggestions consists of three subcategories: increasing the number of personnel, training and psychological support. The longer interns worked in the clinic, the more they became aware of their professional skill deficiencies. They made suggestions to improve care in the context of individual, hospital and school, which can be reflected in the clinics in the fight against COVID-19 infection and increase the quality of patient care.

Intern nursing students stated that increasing the number of personnel would help them struggle with the pandemic better:

'I would increase hygiene by increasing the number of cleaning staff and nurses. Thus, I would prevent the spread of the infection.' [S 5].

'I would like to increase the number of nurses. This is a must for the COVID-19 pandemic to end!' [S 1].

Interns emphasized that training should be organized to ensure that healthcare professionals are ready for a possible pandemic and provide quality care to patients during the COVID-19 pandemic period:

'I would like to take precautions by increasing the amount of equipment before the pandemic and provide training on the use of personal protective equipment during the pandemic.' [S 2].

Intern nursing students emphasized that nurses were very tired, the quality of care decreased and psychological support was very important at this point:

'Extra bonuses, holidays or different activities could be organized as a source of motivation at certain times during the pandemic.' [S 4].

'If the nurse is not happy, the efficiency of the care provided to the patient decreases. I think that the institution should motivate the employees.' [S 6].

5. Discussion

Interns are the prospective health professionals. It is essential to

identify their experiences in clinical practice and to find solutions to the problems they encounter. Research data were collected in the second wave of the COVID-19 pandemic. In the first wave of the pandemic in Turkey, the density of hospitals was relatively less than in the second wave (T.C. Ministry of Health, 2022). Therefore, in the second wave of the COVID-19 pandemic in Turkey, intern nursing students were allowed to be involved in clinical practice. In other words, nursing students were away from clinical practice for a year and a half. The COVID-19 pandemic has led to unprecedented experiences for intern students. This study was conducted to reveal the experiences of interns involved in clinical practice in the COVID-19 pandemic.

Nursing students view clinical practice as a source of worry and stress, even under normal circumstances (Suarez-García et al., 2018). Emotional states have become more complex, especially with the COVID-19 pandemic (Ulenaers et al., 2021). The COVID-19 pandemic has caused both positive and negative emotions among interns. In a study conducted in Spain, it was stated that interns experience complex emotions like “sadness, anger, uncertainty, fear, anxiety, excitement, helpfulness and pride” (Casafont et al., 2021). In a study by Eweida et al. (2020), it was determined that 77.3 % of intern nursing students were stressed during the COVID-19 pandemic (Eweida et al., 2020). Literature has citations that the COVID-19 causes nursing students to experience moderate to high levels of fear (Alsolais et al., 2021; De Los Santos et al., 2021; Oducado et al., 2021; Savitsky et al., 2020). In this research, most of the interns in the ‘emotions’ main category were doing an internship in the intensive care unit. This suggests that students are affected by some characteristics of the patient population (age, demographic characteristics, clinical status, etc.). In a study where intensive care experiences of intern nurse students were examined, it was reported that nursing students had ambivalent feelings related to death, which is consistent with our study (Özkaya Sağlam et al., 2021).

According to the data of the Organization for Economic Co-operation and Development (OCED) before the COVID-19 pandemic, while the number of nurses per 1000 people in Turkey was 2.4, it was 18.1 in Norway, 18.0 in Switzerland, 15.7 in Iceland and 13.9 in Germany (Organization for Economic Co-operation and Development, 2021). The workload of nurses in Turkey is higher than in other countries. The rapidly increasing number of patients in the COVID-19 pandemic has further increased both the workload of nurses and the possibility of contracting COVID-19 infection in Turkey. In a study, it has been reported that 67.07 % of intern students had a fear of getting infected, which increased even more when they were involved in care (Ulenaers et al., 2021). In the study of Savitsky (2020), 43 % of nursing students experienced moderate anxiety (Savitsky et al., 2020). A study conducted in Turkey found that intern students experience moderate fear of COVID-19 (Yazici and Ökten, 2021). Interns have recognized the difficulties of clinical practice and their mental well-being is negatively affected (Shaw, 2020). However, for some interns being an internship during the COVID-19 pandemic was a proud, a unique experience and excitement. In a study conducted in Spain, it is pointed out that providing care to patients during the COVID-19 pandemic means pride for interns (Casafont et al., 2021).

Intern students facing some difficulties in clinical practice expressed that they developed individual coping methods. Coping method and ability are valuable concepts in struggling the COVID-19 pandemic. In a study, it was determined that nursing students use high-level personal protective equipment as a method of coping with COVID-19 infection (Cirik et al., 2021). In another study, nursing students used humor to cope with the COVID-19 pandemic. Humor is reported to be a factor that reduces stress (Savitsky et al., 2020). According to Freud, humor is a powerful mechanism that helps to get away from negative emotions (Penson et al., 2005). Some interns have used coping methods like listening to nature sounds, increasing their inner motivation, massage and listening to music. Cirik et al. (2021) suggested that coping methods with the COVID-19 pandemic depend on the level of psychological resilience rather than sociodemographic characteristics. Some interns,

on the other hand, tried to cope with the negative situations caused by the pandemic by getting support from their families and friends with whom they worked as a team. In a study, intern students received support from their families and friends to cope with stress (Casafont et al., 2021). It is thought that the development and improvement of intern nurses’ psychological coping methods will make clinical practices more efficient.

Interns may lack self-confidence as they approach graduation (Kim and Yeo, 2019) and may wish to have better clinical practice skills. For this reason, interns see this as an opportunity to transfer what they have learned in theoretical training to clinical practice. In a study, it is emphasized that the willingness to care for COVID-19 patients is an important factor for intern students (Casafont et al., 2021). A study in Spain demonstrated that 72.4 % of nursing students were willing to care for patients with COVID-19 infection (Cervera-Gasch et al., 2020). Thanks to the internship experience in the COVID-19 pandemic, the students stated that they have embraced the nursing profession even more and are ready to work as a nurse in the clinic. Being involved in clinical practices during the COVID-19 pandemic has helped them gain deeper insight into the nursing profession. A relevant study emphasized that interns matured under inappropriate conditions but learned nursing professionally (Velarde-García et al., 2021), which is consistent with our results.

This study has some features that distinguish it from other studies examining the experiences of nursing students in the first wave of the COVID-19 pandemic. Previous studies on the subject were made in the phenomenological type, one of the qualitative research designs and in the descriptive type, one of the quantitative research methods. However, to the best of our knowledge, this is the first study to theoretically address the clinical experience of nursing students during the second wave of the COVID-19 pandemic. Some countries, especially the UK and Spain, have included senior nursing students in clinical practice in the first wave of the COVID-19 pandemic. The calling of nursing students into clinical practice in the first wave led to many uncertainties such as role anxiety in nursing students (Velarde-García et al., 2021), the uncertainty of patient profiles (Ulenaers et al., 2021), lack of personal protective equipment (Savitsky et al., 2020), facing the unknown (Gomez-Ibanez et al., 2020) and disruptions in the health system (Collado-Boira et al., 2020). However, after the first wave, when hospital conditions got better in Turkey, nursing students were included in clinical practice. This situation caused nursing students not to participate in clinical practice for one and a half years. The clinical experience provided students with the opportunity to apply and develop the theoretical knowledge they learned in nursing schools while the COVID-19 pandemic continues.

Interns offered solutions to many problems they encountered during clinical practice in the context of nursing. They suggested that the number of nurses and training should be increased to prevent the rapid spread of the COVID-19 infection, reduce the busy workforce and provide the best care. They also emphasized on improving the motivation of nurses. A recent study conducted in China during the COVID-19 pandemic highlights the importance of motivation in providing quality care. For interns, increasing the knowledge level of nurses will reduce the spread of the COVID-19 pandemic. The key point of struggling with the pandemic is that nurses have sufficient knowledge and correct clinical practices (Choi et al., 2020).

5.1. Limitations

This study has some limitations. Since only intern nursing students in clinical practice were involved in this study, the results of the study do not cover all nursing students. Also, interns with high stress levels or with a lot of experience in clinical practice may have participated in the study. Most of the interns in the study were female, so the homogeneity of the gender variable among the participants could not be achieved. Also, it is not known whether the patient population (age, demographic

characteristics, etc.) influences the clinical experience of nursing students. In further studies, it is recommended to examine whether clinical experiences are affected by the patient population with focus group interviews. The findings of this study only reflect the experiences of interns practicing in a hospital, so it should be noted that there may be different experiences in different countries.

5.2. Implications for practice

COVID-19 is an ongoing pandemic. Determining the experiences of interns in clinical practices during the pandemic will ensure that necessary precautions are taken for nursing students who will start clinical practice in the future. In addition, the theoretical model that emerged from the research findings revealed that nursing students needed clinical guidance to cope with the difficulties in clinical practice. Nursing schools can take some initiatives in this regard and provide an opportunity to bring together nursing students with and without clinical experience to share their experiences. Nurse administrators can prepare students for clinical practice by organizing simulation-based training for nursing students before clinical practice. We also think that the theoretical model can be a guide in taking precautionary measures for future pandemics. Nursing schools will also prepare their students for this situation and contribute to the development of students' coping methods in advance. In addition, supporting prospective health professionals also means supporting the nursing profession.

6. Conclusion

During the COVID-19 pandemic, both the personal lives of interns involved in clinical practice and their perspectives on the nursing profession have been affected. Interns need support before and throughout clinical practice. They experienced complicated emotions and were afraid of infecting those around them, patients and their families. Interns should be supported more by both the faculty members and the hospital not to feel lonely. Evaluating the coping methods of nursing students and helping them to manage the difficulties they face is essential for the future of the nursing profession. The theoretical model developed in the research can be a guide for taking precautions for future pandemics. We think that studies with larger sample sizes should be conducted in different countries to investigate whether the clinical experience of nursing trainee students differs according to the patient population.

Funding sources

No external funding.

Ethical approval

This study was approved by the University Medical Faculty Clinical Research Ethics Committee (Date: 26.05.2021, Document ID: KAEK-362).

Declaration of Competing Interest

No conflict of interest has been declared by the author(s).

Acknowledgements

We would like to thank the participants of this study.

Author contributions

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE (<http://www.icmje.org/recommendations/>): 1.substantial contributions to conception and design, acquisition of data or analysis and interpretation of data; 2.

drafting the article or revising it critically for important intellectual content.

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