Nursing Students' Experiences of Distance Education, Which is Still Continuing Today due to the Covid-19 Pandemic: A Phenomenological Study

Ilknur Ozkan[1*], Secil Taylan[2] and Emine Ilaslan[1]

[1]Internal Medicine Nursing Department, Akdeniz University, Kumluca-Antalya/Turkey

[2]Surgical Nursing Department, Akdeniz University, Kumluca-Antalya/Turkey

Corresponding e-mail: ilknurozkan@akdeniz.edu.tr

ABSTRACT

Aim: To investigate and understand the experiences of nursing students towards web-based distance education in Turkey. Background: Due to the pandemic, the rapid pedagogical transition from the traditional face-to-face education approach to distance education is a challenge for nursing education. Method: This study was conducted as a qualitative study with a Hermeneutic phenomenological framework. Results: The analysis of the data revealed three themes: "COVID-19 and the distance education that comes with it", "barriers to distance education", and "dilemmas regarding distance education in terms of nursing education". Nursing students perceived personal, infrastructural, technical equipment, and pedagogical barriers to distance education. Conclusion: In terms of the successful applicability of distance education in nursing education, it is important to be aware of the barriers and to try to reduce them, and to increase strategies that will strengthen clinical learning as an alternative to clinical education, which is an integral part of nursing education.

Keywords: COVID-19, Nursing students, Distance education, Student experiences

INTRODUCTION

Countries are experiencing one of the biggest crises in world history due to COVID 19. It is still not clear when this crisis will end and what the consequences will be. However, statistical data show that a long and difficult process awaits the world. The COVID-19 process has significantly affected many sectors around the world, and the field of education is not an exception [1]. In many countries, schools, universities, and other educational institutions have been temporarily closed to reduce the spread of the COVID-19 pandemic [2]. To manage this process and crisis in Turkey, the Council of Higher Education (CoHE) decided to carry out the education process in the 2019-2020 spring semester and 2020-2021 fall semester through distance education [3]. In line with these decisions, face-to-face education has been suspended at all educational levels of universities, distance education has been launched, local and central exams have been postponed, and web-based exams have been applied to measure and evaluate student achievement. Therefore, the education system that was set according to formal education has urgently needed adapting to the web-based distance education system with crisis management [4].

Distance education also called e-learning and online learning is a form of education that involves the physical separation of teachers and students during teaching and the use of various technologies to facilitate student-teacher and student-student communication [5]. Web-based distance education is not a widely accepted form of education in Turkey although it has been practiced in some universities for a long [4]. Therefore, a special structuring called "emergency remote teaching" was needed in universities during the COVID-19 process. Emergency structured remote teaching involves the use of full distance learning solutions for teaching or learning, which will resume to its old format, face-to-face education when the crisis or emergency disappears [6]. As a quick solution to the crisis caused by COVID-19, universities rapidly switched to emergency remote teaching to continue courses and programs with web-based distance education instead of face-to-face education [7]. Despite the implementation of two semesters through distance education in Turkey today, the concerns of students continue [7-9].

It is expected that this practice, which has been established and settled quickly without ensuring the readiness of the student, will have shortcomings and negative effects [10]. It is also thought that the negative impact of the practice on nursing students whose application areas are clinics will be even bigger [11]. In nursing education, which is based on theoretical and clinical practice, it is necessary to gain clinical skills with clinical education as well as theoretical knowledge. The student develops vocational professionalism and vocational competence skills during clinical training [12,13]. For this reason, nursing instructors and managers must be aware of the theoretical and practical needs of nursing students in distance education and be ready to meet them. Perhaps digital learning will become the main learning framework with the contribution of new technologies and systems shortly due to distance education, pandemics, or the growing human population [4]. For this process to be structured appropriately in nursing education, it is important to investigate the experiences of nursing students during distance education in depth.

Background

The nursing curriculum consists of theoretical and clinical practices that support students' cognitive, sensory, and psychomotor skills. The nursing education process aims to impart and develop clinical skills along with theoretical knowledge. While clinical education achieves learning by integrating theoretical knowledge into practice, it improves skills in areas, such as vocational professionalism, vocational competence, communication, teamwork, critical decision-making, and critical thinking [12,13]. For this reason, distance education is generally not preferred in nursing education or is used as a support method for face-to-face education.

Due to the pandemic, the transition of nursing education to distance education was sudden and unprepared, and the clinical practices of the students were canceled. The rapid pedagogical transition from the traditional face-to-face education approach to distance education is a challenge for nursing education [14-16]. It has been observed that nursing departments do not have an infrastructure to support education in the digital environment in many countries [17-19]. Studies on nursing education carried out through distance education during the pandemic process indicate that students are not ready for distance education and that their satisfaction is low [9,14,17,20]. In three qualitative studies, students reported that clinical education in nursing education was very important in the development of their professional identities and that they were concerned about the lack of implementation of clinical practices in distance education during the COVID 19 process [14,21-23]. It has been determined that nursing students exhibit more negative attitudes towards distance education, especially in low-income countries, due to low internet speed and high prices for internet connection [17,18]. In addition, previous studies have reported conflicting or equivalent results regarding the benefits and barriers of face-to-face learning and distance learning using digital tools in nursing education [24,25]. Studies on distance education in nursing education during the COVID-19 process are mainly quantitative studies conducted at the beginning of the pandemic. The number of qualitative studies, on the other hand, is quite low [14,22,23]. Accordingly, this study used a qualitative design and was carried out to comprehensively examine and understand the experiences of nursing students, who are receiving distance education today due to the COVID-19 pandemic, towards web-based education.

METHOD

Study Design

This study was conducted as a qualitative study with a Hermeneutic phenomenological framework. Heidegger's hermeneutical phenomenology deals with the human experience that is currently happening. The importance of understanding rather than definition transforms hermeneutics into a research method based on the ontological view of lived experience as an interpretive process. Hermeneutic phenomenology also provides a framework for understanding and transforming lived experience into a recognizable meaning [21].

Setting and Sample

The study was carried out in the nursing department of a faculty in the west of Turkey. In this faculty, all of the courses of the nursing department have been conducted with distance education for two semesters, and clinical practice is not implemented. In the first period of distance education, only course notes were shared with students on the digital platform. Course videos could not be posted or online synchronous courses could not be carried out due to the deficiencies in technical infrastructure. Assessment of all courses was made by grading student homework. Since the second period of distance education, the university has tried to make up for deficiencies of the technical infrastructure and started

providing all courses synchronously, and recording, and offering the courses to the students. Clinical practices have been carried out synchronously through case studies and video presentations. The course assessment has been made through grading student homework, online tests, and case presentations. No compulsory course attendance has been exercised on students.

The sample of the study was composed of nursing students receiving distance education in the nursing department in the fall semester of the 2020-2021 academic year. Inclusion criteria of the study were having a good command of Turkish, agreeing to participate in the study, and having an active enrollment during the related course period. Convenience sampling was used to select and invite students to participate in the study through WhatsApp. Data collection was terminated when data saturation was reached (in other words, when there were no new data, repeated data were obtained, and there were no more new coding). The sample of the study consisted of 14 student nurses.

Data Collection

First, students were informed about the content of the study *via*. WhatsApp and the students who were willing to participate in the study were asked to contact the researchers. Thirty students contacted the researchers, and these students were found to meet the study criteria. The researchers grouped the students according to their classes and determined a date for the interview, starting with the student with the smallest school number in each class. The interviews were held once with each student on the Zoom application. The length of interviews varied between 40 minutes-50 minutes. With the permission of the students, interviews were recorded and transcribed into plain text in a Microsoft Word document.

The study data were collected with a Descriptive Information Form and a Semi-Structured Interview guide, which was developed by the authors. In the Descriptive Information Form, students' age, sex, school year, place of residence, and the device (computer, phone, tablet) used to connect to distance education was questioned. The interview guide consisted of three questions:

How has the global COVID-19 pandemic affected your life?

Can you explain your experiences regarding the management of lessons with distance education during the global COVID-19 pandemic process?

What do you think about the implementation of nursing education through distance education?

Data Analysis

The data were evaluated using Van Manen's thematic analysis (Van Manen, 2016) method. The content of the interviews was typed in a Microsoft Office document and the data obtained were examined in three stages: (1) examination as a whole (identification of the sentences that reflect the main idea of each interview); (2) selective reading (highlighting the sentences related to the phenomenon in question); and (3) line by line reading (reading each sentence to interpret what the phenomenon reveals). Then, meaningful units were determined by the researchers, and the coding was done according to these units, and a sequence of codes created by applying a consistent coding method was established. The units in the code sequence were derived from the words and phrases used by the participants, and they were categorized into units, themes, and sub-themes with similar meanings. After reviewing and revising the codes, the themes and sub-themes were finalized.

The rigor of the Study

To ensure the reliability of the study, the data were evaluated separately by the researchers. Then, the inconsistencies between the coders were discussed, and a consensus was reached. The students participating in the study were asked to read and confirm the data. Besides, the data were re-evaluated by another person who is an expert in qualitative studies and was not included in the study.

Ethics of the Study

Ethical approval of the Ethics Committee of a university (approval number: KAEK-964/23.12.2020) was obtained. At the beginning of the interview, participants were informed about the purpose of the study, and their written informed consent was obtained through the online form.

RESULTS

This study, which was carried out to investigate the distance education experiences of nursing students, consisted of 14 students, including 4 males and 10 females, between the ages of 19 and 23. Other descriptive characteristics of the students are given in Table 1. Three themes and seven sub-themes obtained from the analysis of the data are presented in Table 2.

Table 1 Demographic characteristics

Students	Age	Gender	Year of Education	Living Place
S1	19	Female	First year	Rural
S2	22	Female	Fourth year	Urban
S3	21	Female	Second year	Rural
S4	23	Male	Second year	Urban
S5	21	Male	Thirth year	Rural
S6	22	Female	Fourth year	Rural
S7	23	Male	Fourth year	Urban
S8	20	Male	Second year	Urban
S9	19	Female	First year	Urban
S10	21	Female	Thirth year	Rural
S11	19	Female	First year	Urban
S12	20	Female	Second year	Urban
S13	19	Female	First year	Rural
S14	21	Female	Thirth year	Urban

Table 2 Themes, subthemes, and supporting quotes

Themes	Subthemes	Supporting Quotes
COVID-19 and the distance education that comes with it	Effects of COVID-19	"I feel that my whole life has changed; my freedom …" (S2, female)
		"If … what is worse is I had started to imagine my death. When I closed my eyes in bed, I imagined myself being taken to the hospital with difficulty breathing." (S3, female)
		"But the thought that people in my family would be hurt, not that something bad would happen to me, was the most dominant." (S11, female)
		"I know our country is going through a difficult process, but the first thing that makes me think of after health is livelihood; my father lost his job and we are a crowded family. I cannot concentrate on school while thinking about all this." (S8, male)
	Compulsory introduction to distance education and the following process	"They said we switched to distance education, so we were introduced to it. What would happen then? I was concerned. How would I follow it? Would I be able to learn? How would the exams be? … Countless questions in my mind!" (S1, female)
		"At the beginning, course materials were uploaded to the system in PDF file format; now we are doing the lessons synchronously. It is better, but not like face-to-face education because there is no interaction and we cannot adapt to it. I hope this is a temporary process." (S5, male)
		"Distance education is difficult … It is going on in one way or another... There is nothing to be done … Online exams are very difficult." (S4, male)

Barriers to distance education	Personal barriers	"The ever-increasing number of cases and constantly staying at home is escalating our despair and fear, and therefore, I cannot concentrate on distance education." (S10, female)
		"I'm attending classes while my mother is vacuuming home. What a working environment! Can this ever replace the school?" (S7, male)
		"I have a computer that my family has bought under financial difficulties. I have a brother at home, our lesson times are overlapping. Only one of us can use the computer." (S9, female)
		"I think the efforts of students studying for online exams will be wasted. This is lowering my motivation." (S14, female)
		"Since I don't have a computer, I have tried to follow the courses on my mobile phone. I had to do my assignments on the phone and it was very difficult." (S12, female)
	Infrastructure and technical equipment-related barriers	"I think students who live in places with inadequate internet infrastructure, like me, are ignored." (S6, female)
		"We have a bad Internet connection and frequent power outages. For this reason, online tests are a nightmare to me." (S13, female)
		"As I have learned from my friend, she can connect to the Internet only on the balcony of the house. How can she follow the lessons from the balcony in this cold snowy weather?" (S12, female)
		"It is very frustrating when your voice cannot be heard on the other side or when you often disconnect from the lesson." (S1, female)
	Pedagogical barriers	"I attended all online classes, but my friends who never followed any lessons got higher scores than me. I do not believe in the reliability of online exams." (S12, female)
		"The lessons in distance education are monotonous, there is no interaction, and it is very difficult to adapt." (S11, female)
		"I miss our conversations with friends during the lessons." (S14, female)
		"Lecturers should make speeches to encourage us; they should not give lessons just for the sake of doing the lesson. These speeches are really important; they stir us and make us come to our senses." (S2, female)
		"In this period, our requests from instructors are not difficult; they should understand and empathize with us and help with the problems that we cannot solve, and not leave us alone." (S8, male)
		"Distance education reminds me of red eyes and a hunched back. We try to listen to lectures for hours, locked on the screen. It is very difficult to concentrate. It doesn't feel like face-to-face education. Course hours and contents should have been reviewed by the university." (S7, male)

Dilemmas regarding distance education in terms of nursing education	Opportunities and challenges offered by distance education	"I have a lot of extra time thanks to distance education; I can spare time for other businesses." (S5, male)
		"The theoretical lessons are like private lessons, but I want to touch things." (S10, female)
		"The teacher talked about bones in the anatomy lesson, but now I think all bones are the same for me (laughing loudly)." (S13, female)
		"Theoretical knowledge can be learned by listening, but quickly forgotten without a clinic and a laboratory." (S10, female)
		"I am totally against distance nursing education because we can learn only by integrating theory into practice." (S2, female)
		"Watching things in a video doesn't work much. My father and I prepared a kind of liquid with tomato paste to simulate vascular access at home." (S11, female)
		"What was lectured in the lesson was not enough. My sister is a nurse. I went to her hospital. We took permission from the head physician and I made observations for a week. I had to see and experience what I learned." (S3, female)
	Concerns related to missing clinical practices	"We are in our last year; if we graduate without doing an internship, we will have deficiencies in many aspects of our future working life, and this situation worries me a lot." (S6, female)
		"Okay, we have memorized what we will do with a given patient, but if I can't see a real patient, I can't be sure about what I will do." (S2, female)
		"Since human life is in question, nursing education without clinical practice is unimaginable. It has been two semesters and it is also uncertain this semester … we cannot do the clinical practice. Can I learn or adopt nursing values and roles remotely? … I have worries about it." (S14, female)
		"Without clinical practice, you cannot feel or think like a nurse." (S10, female)
		"Our applied lessons, fundamentals of nursing, have begun to be implemented without practice!" (S6, female)

COVID-19 and the Distance Education that comes with it

More than half of the students stated that COVID-19 affected their lives in many ways and identified distance education as a restriction and change made by COVID-19 in their educational lives. This theme consists of two sub-themes: "The effects of COVID-19" and "Compulsory introduction to distance education and the following process".

Effects of COVID-19: Students referred to the COVID-19 pandemic as uncertainty, restriction, and change in their lives. Some students stated that due to the uncertainty of COVID 19, they experienced intense feelings of fear and anxiety and had difficulties in adapting to daily life. More than half of the students stated that they worried about their family more than themselves and feared losing their family members. Some students stated that in the later stages of the pandemic, their family members experienced economic difficulties due to losing their jobs, they started to experience family discussions, tension, and uneasiness due to constantly staying home, and that this situation negatively affected their education.

Compulsory introduction to distance education and the following process: Some of the students referred to distance education as a compulsory meeting since they had to switch to distance education in just one day without knowing the answers to questions, such as what distance education was, what was expected from them, how the process was carried out, or how their competencies would be evaluated and without feeling ready and competent. More than half of the students stated that they were still unable to adapt to distance education, they were concerned about their education, there was nothing to do, they hoped this process would be temporary, and that they tried to manage this process in some way.

Barriers to Distance Education

All of the students stated that there were barriers to distance education provided in the COVID-19 process and that these barriers negatively affected the adequacy, accessibility, and applicability of distance education. This theme consisted of three sub-themes: personal barriers, infrastructure, and technical equipment-related barriers, and pedagogical barriers.

Personal barriers: More than half of the students stated that they saw lack of motivation as an important personal barrier to distance education. They expressed the following as factors that reduced their motivation: mood changes, such as stress, anxiety, or fear, experienced due to COVID-19, lack of interaction in online education as in the face-to-face education, being away from friends, failure to create the habitual studying environment of the dormitory at home, and doubts about the reliability of online tests. Some students stated that they could not provide self-discipline in managing the distance education process and that face-to-face education was, therefore, more suitable for them. Some also stated that their socio-economic level was an important barrier to distance education.

Infrastructure and technical equipment-related barriers: Especially, students living in rural areas stated that the biggest barrier for them was the weak internet speed in rural areas where they lived, connection interruptions due to frequent power outages, and difficulties following the lessons. Some students stated that they had difficulties in case presentations or group work due to technical problems during online classes and that this disrupted the interaction in the course.

Pedagogical barriers: Some students stated that the apathy of the lecturer giving the course and only reading the slides as a teaching method, lack of interactive implementation of the lessons, and lack of an empathetic and solution-oriented approach to student problems directly affected the interaction and communication. Third and fourth-year students stated that the interaction between the student and teacher or between students in the virtual classroom environment was not as in the traditional classroom environment and that this situation lowered their motivation. Some students also stated that although universities tried to make arrangements to meet their distance education needs, they found the arrangements regarding the content of the course curriculum and hours insufficient. The majority of the students reported that measurement and evaluation in distance education were not sufficient and that they had doubts about its reliability.

Dilemmas Regarding Distance Education in terms of Nursing Education

More than half of the students stated that they saw distance education only as an emergency action plan in this process and that distance education was not suitable for disciplines that require applied education such as nursing. Some first and second-year students stated that distance education also had some benefits and that they were pleased with it. Students living in rural areas, on the other hand, did not support distance education at all, as they thought that distance education caused inequality of opportunity. This theme consisted of two sub-themes.

Opportunities and challenges offered by distance education: Some students considered distance education as an opportunity because they had more time, could listen to the lecture videos over and over again, had a more comfortable environment compared to crowded classrooms, did not have to leave home for the city where their university was located and did not need to pay extra cost. Others stated that distance education provided some ease, but that they had difficulties in integrating theory and practice in applied courses. Some 3rd and 4th-year students stated that distance education did not meet their needs for skills, behaviors, and experiences that they would gain from clinical and laboratory practices, and that the clinical environment was a unique place where they communicated closely with their instructors and colleagues. A 3rd-year student stated that they learned to think and act like a nurse in clinical practice and that this was not possible in distance education. First-year students reported that they watched videos in their laboratory practice, but that only watching was not enough to develop their motor skills. Some first and second-year students stated that distance education prevented the formation of a sense of belonging to nursing.

Concerns related to missing clinical practices: All of the students stated that they were concerned about missing clinical practices, and they thought that this would negatively affect the development of their professional identities. More than half of the students mentioned that after this process, compensation programs for practice were necessary and that they would always feel incompetent if these make-up programs were not made. Some students stated that although they did their practice training in the form of case analysis, it was not like the practice in the clinic and that they wanted to touch, feel, and experience care. Some students also used the analogy ''we are pretending'' for the course given in distance education to meet practice training. Fourth-grade students were more concerned about losing their caring skills and self-confidence.

DISCUSSION

This study, which was carried out to examine the experiences of nursing students towards web-based distance educa-

tion that had to be launched suddenly due to the COVID-19 pandemic and continues today, was completed with 14 students. It is thought that the findings of the study will provide useful information on the appropriate structuring of distance education, which cannot be predicted for how long to continue and perhaps will become a basic education model from now on, in nursing education.

In the study, it was found that COVID-19 negatively affected students psychologically and socially and that negative effects were also reflected in their educational lives. Similarly, in studies conducted during the pandemic process, students were determined to experience negative emotions, such as intense anxiety and stress due to the uncertainty of the process, fear that they or their family may get infected, social isolation, or economic instability, and they had difficulties in coping with these emotional states and therefore following the courses [9,26-28]. For this reason, it is important that instructors are aware of the changes in students' emotional states and the difficulties they experience, communicate with students, and encourage and support them.

Lack of motivation, inability to maintain self-discipline and low socioeconomic level were identified as personal barriers to distance education in the study. In studies conducted with nursing and other university students, lack of motivation during the COVID-19 process has been identified as an important barrier to distance education [23,29,30]. According to the Intrinsic and Extrinsic Motivation Theory, learning is a complex process, and motivation is the force that encourages learning. Therefore, students need to be highly motivated to face challenges and understand the process and fit it into real conditions. While intrinsic motivation leads to self-motivation in sustaining learning, extrinsic motivation gives a reason for sustaining learning [31]. For this reason, the instructor must take initiative to increase the intrinsic and extrinsic motivation of students in increasing the success of distance education [32].

Achieving success in distance education is closely related to the student's high level of self-discipline [16,33]. As in this study, it was determined in a study conducted in Brazil among university students studying health discipline, including the nursing department that the most common difficulty in distance education during the COVID-19 process was to establish a studying routine [16]. Some studies determined that students had difficulties in achieving self-discipline due to reasons, such as unfamiliarity with distance education during the COVID-19 process, the inappropriateness of the home environment for distance education, and reluctance to adapt to the distance education system [14,23,29]. The rapid pedagogical transition from the traditional way of education to distance education is a challenge for nursing students [14,16]. Unlike traditional education, nursing students have a much greater responsibility for learning in distance education, they are the main person who manages the process, and the instructor is a guide and supporter [34,35]. The use of techniques that encourage active learning by instructors (group and project work, case discussions) is beneficial for students to take responsibility for their learning [36,37].

In the study, it was understood that the biggest barrier to distance education for students living in rural areas was the weak internet speed and frequent power cuts in the rural areas where they lived. Studies have also determined that the most important barrier to distance education for students living in low and middle-income countries or rural areas is the deficiencies in infrastructure and technical equipment [17-19]. It is necessary to make improvements in infrastructure and technical equipment to successfully implement distance education.

In the study, the decrease in the interaction and communication between the student and the instructor, the decrease in the interaction and communication between the students themselves, and deficiencies in the content of the course curriculum and hours were determined as the pedagogical barriers perceived by students. Some of the studies reported that students faced similar pedagogical barriers during distance education in the COVID-19 process [14,22,23]. It was determined that the interaction between the instructor and the student, the perception of the instructor towards distance education, and the characteristics of the instructor affected students' attitude towards distance education [17,20,38]. Similarly, in a qualitative study in which the distance education experiences of nursing students in the COVID-19 process were examined by focus group interview method, it was determined that distance education affected student-teacher and peer communication and that students had difficulty understanding some course content in distance education [14]. The interaction of students with peers, instructors, content, and interfaces is an important part of students' distance learning process [39]. According to the transactional distance theory, which is popularly used among many academicians, the physical distance of students does not mean that they are far from learning and the real distance is the lack of communication and psychological factors that prevent learning. According to this theory, student-teacher interaction focuses on interactive dialogue and includes pedagogical guidance, scaffolding, and support provided by

the instructor [40]. Accordingly, the aim of the instructor in distance education should be to motivate students to learn by supporting the course content and peer interaction.

In the study, the majority of the students stated that distance education was not suitable for nursing education and that the lack of clinical practice was an important deficiency in terms of nursing education. In studies conducted in different countries during the COVID-19 process, it was determined that the attitudes of nursing students towards distance education were generally negative due to the lack of clinical practice [9,14,17,20].

Clinical practice training is essential for integrating student's skills, theory, and critical thinking processes into professional practice [12,13]. Apart from this, students develop their professional identities by learning to think and act as nurses in clinical practice [41]. Performing nursing education through distance education results in limited practical experience [15]. In this respect, distance education in nursing involves concerns about possibilities to provide students with meaningful clinical experience, such as acquiring psychomotor and critical thinking skills, remotely [16,42]. In this study, too, it was understood that students had similar concerns that their professional identity development was negatively affected because distance education did not meet their needs for skills, behaviors, and experiences that they would gain from clinical and laboratory practices. It seems likely that the pandemic will continue or new pandemics will emerge. It is important to learn from the problems experienced in nursing education provided through distance education during the COVID-19 process. One of the most important lessons to be learned in nursing education is the need to increase strategies to strengthen clinical learning in distance education. For this reason, applications in clinical learning, such as simulations, telehealth, and virtual reality, should be widespread, and students should be supported in terms of clinical learning.

Limitations of the Study

The most important limitation of the study is that the hermeneutic paradigm has been used to examine the nursing students' experiences, so the results cannot be generalized to all nursing students. However, the results of this study are of great importance in terms of presenting the experiences of students regarding nursing education, which has been carried out through distance education for two semesters.

CONCLUSION

In the study, students defined distance education as a limitation caused by COVID-19 in their educational lives. Nursing students defined personal, infrastructural, technical equipment-related, and pedagogical barriers as factors that negatively affected the efficacy, accessibility, and feasibility of distance education. Although the students were aware of some opportunities offered by distance education, they defined the lack of clinical practice as an important deficiency and inadequacy in terms of nursing education and stated that they were concerned due to the lack of clinical practice. In terms of the successful applicability of distance education in nursing education, it is important to be aware of the barriers to learning and to try to reduce them and to increase strategies to enhance clinical learning as an alternative to clinical learning, which is an integral part of nursing education.

DECLARATIONS

Conflicts of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

REFERENCES

[1] Mofijur, M., et al. "Impact of COVID-19 on the social, economic, environmental and energy domains: Lessons learnt from a global pandemic." *Sustainable Production and Consumption,* Vol. 26, 2020, pp. 343-59.

[2] Crawford, Joseph, et al. "COVID-19: 20 countries' higher education intra-period digital pedagogy responses." *Journal of Applied Learning and Teaching,* Vol. 3, No. 1, 2020, pp. 1-20.

[3] Council of Higher Education (CoHE). 2020. https://www.yok.gov.tr/en

[4] Telli, Sahure Gonca, and Deniz Altun. "The coronavirus and the inevitable rise of online education." *Journal of University Studies,* Vol. 3, No. 1, 2020, pp. 25-34.

[5] Simonson, Michael, Susan M. Zvacek, and Sharon Smaldino. "Teaching and learning at a distance: Foundations of distance education 7th Edition." 2019.

[6] Hodges, Charles, et al. "The difference between emergency remote teaching and online learning." *Educause Review,* Vol. 27, 2020, pp. 1-12.

[7] Bozkurt, Aras, et al. "A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis." *Asian Journal of Distance Education*, Vol. 15, No.1, 2020, pp. 1-126.

[8] Keskin Kiziltepe, Selin, and Asli Kurtgoz. "Determining the attitude and opinions of nursing students towards distance education during the COVID-19 pandemic process." *Journal of International Social Research,* Vol. 13, No. 74, 2020.

[9] Kurtuncu, Meltem, and Kurt Aylin. "Problems nursing students experience in distance education during the COVID-19 pandemic." *Journal of Eurasian Social and Economic Studies,* Vol. 7, No. 5, 2020, pp. 66-77.

[10] Aristovnik, Aleksander, et al. "Impacts of the COVID-19 pandemic on life of higher education students: A global perspective." *Sustainability,* Vol. 12, No. 20, 2020, p. 8438.

[11] Carolan, Clare, et al. "COVID 19: Disruptive impacts and transformative opportunities in undergraduate nurse education." *Nurse Education in Practice,* Vol. 46, 2020, p. 102807.

[12] Lee, Jung Jae, Charlotte L. Clarke, and Maggie N. Carson. "Nursing students' learning dynamics and influencing factors in clinical contexts." *Nurse Education in Practice,* Vol. 29, 2018, pp. 103-09.

[13] Pimmer, Christoph, et al. "Instant messaging and nursing students' clinical learning experience." *Nurse Education Today,* Vol. 64, 2018, pp. 119-24.

[14] Langegard, Ulrica, et al. "Nursing students' experiences of a pedagogical transition from campus learning to distance learning using digital tools." *BMC Nursing,* Vol. 20, No. 1, 2021, pp. 1-10.

[15] Lowery, Bobby, and Nancy Spector. "Regulatory implications and recommendations for distance education in prelicensure nursing programs." *Journal of Nursing Regulation,* Vol. 5, No. 3, 2014, pp. 24-33.

[16] Peloso, Renan Morais, et al. "Notes from the field: Concerns of health-related higher education students in Brazil pertaining to distance learning during the coronavirus pandemic." *Evaluation and the Health Professions,* Vol. 43, No. 3, 2020, pp. 201-03.

[17] Diab, G. M. A. E. H., and Nahid Fouad Elgahsh. "E-learning during COVID-19 pandemic: Obstacles faced nursing students and its effect on their attitudes while applying it." *American Journal of Nursing,* Vol. 9, No. 4, 2020, pp. 300-14.

[18] Olum, Ronald, et al. "Medical education and e-learning during COVID-19 pandemic: Awareness, attitudes, preferences, and barriers among undergraduate medicine and nursing students at Makerere University, Uganda." *Journal of Medical Education and Curricular Development,* Vol. 7, 2020, p. 2382120520973212.

[19] Subedi, Suraksha, et al. "Impact of E-learning during COVID-19 pandemic among nursing students and teachers of Nepal." *International Journal of Science and Healthcare Research,* Vol. 5, No. 3, 2020, pp. 68-76.

[20] Mahmodi, Mahdi, and Maryam Jalali Moghadam. "The Correlation between students' attitudes and persistence in E-learning." *Interdisciplinary Journal of Virtual Learning in Medical Sciences,* Vol. 10, No. 2, 2019, pp. 30-38.

[21] Laverty, Susann M. "Hermeneutic phenomenology and phenomenology: A comparison of historical and methodological considerations." *International Journal of Qualitative Methods,* Vol. 2, No. 3, 2003, pp. 21-35.

[22] Lovric, Robert, et al. "Studying during the COVID-19 pandemic: A qualitative inductive content analysis of nursing students' perceptions and experiences." *Education Sciences,* Vol. 10, No. 7, 2020, p. 188.

[23] Ramos-Morcillo, Antonio Jesús, et al. "Experiences of nursing students during the abrupt change from face-to-face to e-learning education during the first month of confinement due to COVID-19 in Spain." *International Journal of Environmental Research and Public Health,* Vol. 17, No. 15, 2020, p. 5519.

[24] McCutcheon, Karen, et al. "A systematic review evaluating the impact of online or blended learning *vs.* face-to-face learning of clinical skills in undergraduate nurse education." *Journal of Advanced Nursing,* Vol. 71, No. 2, 2015, pp. 255-70.

[25] Voutilainen, Ari, Terhi Saaranen, and Marjorita Sormunen. "Conventional *vs.* e-learning in nursing education: A systematic review and meta-analysis." *Nurse Education Today,* Vol. 50, 2017, pp. 97-103.

[26] Cao, Wenjun, et al. "The psychological impact of the COVID-19 epidemic on college students in China." *Psychiatry Research,* Vol. 287, 2020, p. 112934.

[27] Savitsky, Bella, et al. "Anxiety and coping strategies among nursing students during the covid-19 pandemic." *Nurse Education in Practice,* Vol. 46, 2020, p. 102809.

[28] Wang, Chuanyi, et al. "Risk management of COVID-19 by universities in China." *Journal of Risk and Financial Management,* Vol. 13, No. 2, 2020, p. 36.

[29] Lassoued, Zohra, Mohammed Alhendawi, and Raed Bashitialshaaer. "An exploratory study of the obstacles for achieving quality in distance learning during the COVID-19 pandemic." *Education Sciences,* Vol. 10, No. 9, 2020, p. 232.

[30] Lovric, Robert, et al. "Students' assessment and self-assessment of nursing clinical faculty competencies: Important feedback in clinical education?" *Nurse Educator,* Vol. 40, No. 5, 2015, pp. E1-E5.

[31] Gopalan, Valarmathie, et al. "A review of the motivation theories in learning." *AIP Conference Proceedings*, Vol. 1891, No. 1, 2017.

[32] Morin, Karen H. "Nursing education after COVID-19: Same or different?" *Journal of Clinical Nursing*, Vol. 29, 2020, pp. 3117-19.

[33] Gorbunovs, Aleksandrs, Atis Kapenieks, and Sarma Cakula. "Self-discipline as a key indicator to improve learning outcomes in e-learning environment." *Procedia-Social and Behavioral Sciences,* Vol. 231, 2016, pp. 256-62.

[34] Jowsey, Tanisha, et al. "Blended learning *via* distance in pre-registration nursing education: A scoping review." *Nurse Education in Practice,* Vol. 44, 2020, p. 102775.

[35] Lall, Priya, et al. "Influences on the implementation of mobile learning for medical and nursing education: Qualitative systematic review by the Digital Health Education Collaboration." *Journal of Medical Internet Research,* Vol. 21, No. 2, 2019, p. e12895.

[36] Gagnon, Marie-Pierre, et al. "The impact of blended teaching on knowledge, satisfaction, and self-directed learning in nursing undergraduates: A randomized, controlled trial." *Nursing Education Perspectives,* Vol. 34, No. 6, 2013, pp. 377-82.

[37] Zolfaghari, Mitra, Reza Negarandeh, and Sana Eybpoosh. "Developing a blended learning program for nursing and midwifery students in Iran: process and preliminary outcomes." *Iranian Journal of Nursing and Midwifery Research,* Vol. 18, No. 1, 2013, pp. 20-26.

[38] Mtebe, Joel S., and Christina Raphael. "Key factors in learners' satisfaction with the e-learning system at the University of Dar es Salaam, Tanzania." *Australasian Journal of Educational Technology,* Vol. 34, No. 4, 2018, pp. 107-22.

[39] Vlachopoulos, Dimitrios, and Agoritsa Makri. "Online communication and interaction in distance higher education: A framework study of good practice." *International Review of Education,* Vol. 65, No. 4, 2019, pp. 605-32.

[40] Moore, Michael Grahame, ed. "Handbook of distance education." *Routledge*, 2013.

[41] Fitzgerald, Anita. "Professional identity: A concept analysis." *Nursing forum*, Vol. 55, No. 3, 2020.

[42] Dacanay, Adrian P., et al. "Factors contributing to nursing distance education student success." *Journal of Nursing Education and Practice,* Vol. 5, No. 2, 2015, pp. 34-39.