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Nursing Students 'Thoughts About Distance Education in The Covid-19 Pandemic Process: A Phenomenological Approach

Covid-19 Pandemi Sürecinde Hemşirelik Öğrencilerinin Uzaktan Eğitime İlişkin Düşünceleri: Fenomenolojik Bir Yaklaşım

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Abstract

Aim: This study was conducted to determine nursing students' thoughts on distance education during the Covid-19 pandemic process.

Material and Method: The experiences of nursing students regarding distance education were conveyed with a phenomenological approach. The data were collected with 23 nursing students using a semi-structured interview form and an online environment. Colaizzi's phenomenological method was used in the analysis of the data.

Results: As a result of the coding, 5 main themes were determined in the Covid-19 process, one of the expressions of nursing students, as 1) their thoughts about distance education and clinical practices, 2) difficulties encountered, 3) coping methods, 4) anxieties and worries, 5) solutions recommendations.

Conclusion: It was determined that nursing students experienced problems in distance education and clinical applications during the Covid-19 pandemic process. Among these problems are problems related to distance education infrastructure, limited sources, asynchronous education and communication problems, academic assignments, and examinations. It is thought that the results will allow institutions that provide nursing education and contribute to future academic studies.

Keywords: Covid-19, pandemia, distance education, nursing students, phenomenological approach.

Öz

Amaç: Bu çalışma, hemşirelik öğrencilerinin Covid-19 pandemi sürecinde uzaktan eğitime ilişkin düşüncelerini saptamak amacıyla yapılmıştır.

Gereç ve Yöntem: Hemşirelik öğrencilerinin uzaktan eğitime ilişkin deneyimleri fenomenolojik yaklaşım ile aktarılmıştır. Veriler, yarı yapılandırılmış görüşme formu ile çevrimiçi ortam kullanılarak 23 hemşirelik öğrencisi ile toplanmıştır. Verilerin analizinde Colaizzi'nin fenomenolojik yöntemi kullanılmıştır.

Bulgular: Yapılan kodlamalar sonucunda hemşirelik öğrencilerinin ifadelerinden Covid-19 sürecinde 1) uzaktan eğitime ve klinik uygulamalara yönelik düşünceleri, 2) yaşadıkları problemler, 3) başetme yöntemleri, 4) kaygı ve endişeleri, 5) çözüm önerileri şeklinde 5 ana tema belirlenmiştir.

Sonuç: Hemşirelik öğrencilerinin Covid-19 pandemi sürecinde uzaktan eğitim ve klinik uygulamalara yönelik problemler yaşadıkları belirlenmiştir. Bu problemler arasında uzaktan eğitim altyapısına ilişkin sorunlar, sınırlı kaynaklar, eş zamansız eğitim ve iletişim sorunları, akademik ödevler ve sınavlar yer almaktadır. Sonuçların hemşirelik eğitimi veren kurumlara ve gelecek akademik çalışmalara katkı sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Covid-19, pandemi, uzaktan eğitim, hemşirelik öğrencileri, fenomenolojik yaklaşım.



INTRODUCTION

Coronavirus (COVID-19) emerged as a severe acute respiratory syndrome in Wuhan City-Hubei Province, China in December 2019. [1,2]

After the virus had globally spread, in Turkey the first COVID-19 case was detected on the 10th of March, 2020. According to the data and findings that have been registered since the 11th of March, 2020 when the World Health Organization (WHO) announced that the disease was a global pandemic; it is reported that there have been 37.534.235 COVID-19 cases and 1.077.636 people have died from the disease all over the world. [3] COVID-19 pandemic, affecting the whole world, influences many dimensions of daily life significantly.[4-6] When the relevant education literature is reviewed, it is seen that the education has been continued with online courses, academic assignments, and examinations in many countries. [7,8] In Turkey; it was announced that formal face-to-face courses would not be provided during the spring semester of the 2019-2020 academic year and the distance learning process was initiated Council of Higher Education (CHE).[9] As in medical faculties, faculties of dentistry, veterinary schools, and faculties of pharmacy, which provide the applied courses in health during the pandemics; nursing education has been negatively hit, too. Due to the nursing distance education programs that were hastily designed; both nursing students and academician nurses faced numerous problems and were negatively affected.[6,10-12]

Some of the problems of the universities that offer nursing education are poor distance educational materials and infrastructure, students lacking technological devices for distance education such as computers, telephones, and insufficient and bad network connection. With distance education, nursing students could not perform face-to-face clinical practices and ended the academic term without touching a patient. To answer these needs accompanied by COVID-19; all the academicians that taught health education began clinical applied courses with small student groups via by giving online assignments, examinations, and case presentations. [11,13-18]

The literature support for adequate qualitative studies conducted with nursing students in this field could not be reached. For this reason, this study was conducted to determine nursing students' thoughts on distance education during the COVID-19 pandemic process.

MATERIAL AND METHOD

This study was planned in the phenomenological type. Purposeful and snowball sampling methods were applied to the study group. The students who volunteered to participate in the study from the 1st, 2nd, 3rd, 4th year nursing students who received distance education were included in the purposeful sample. The sample was (a) receiving distance education during the Covid-19 pandemic, (b) who can understand and

speak Turkish, and (c) who agreed to participate in the study. The primary purpose of phenomenological studies is not to generalize, but to understand the phenomena in depth. In phenomenological studies, no rule has been determined regarding the number of samples, and phenomenological studies with in-depth interviews are conducted with a small sample group of 5 to 25 participants. The interviews were terminated when the data saturation was reached. Nursing students were also asked to convey their feelings and thoughts in writing so that they could express their feelings better, and researchers were asked to send them to their e-mail addresses.

Data Collection

An individual interview was conducted using the online environment (skype) on the days and times convenient for the students. The interviews were held between July 16 and August 1, 2020. Interviews were conducted with the nursing students participating in the study by giving pseudonyms. For the interviews to be conducted in a healthily, the students were ensured to be in a quiet room by the researchers, and the interviews were carried out on Skype for an average of 35-40 minutes. Audio recorded during the interviews. When the answers given by the participants of the study to the study questions started to be similar; It is known that the study has reached data saturation and the data collection process has been stopped.[19] It was completed with 23 nursing students who met the inclusion criteria of the study and agreed to participate in the study. The data were collected with the data collection form and interview form prepared by the researcher by scanning the literature.[11,21-24] The open-ended questions in the questionnaire form and semi-structured interview form, which were created by the researchers in line with the literature, were asked to the students and the answers given by the students to the questions were put in writing. The missing data were completed by combining the written documents as a result of the data obtained from the interviews and the answers to the questionnaire questions sent by the students. The formulated meaning is organized into categories and theme clusters as described by Colaizzi. The main categories, themes, and sub-themes related to students' opinions on distance education were determined.

Data Analysis

In the data analysis of this study, Colaizzi's seven-step descriptive phenomenological method was used (**Figure 1**).^[25] SPSS 24 package program was used in the analysis of the quantitative data part of the study. In the analysis of the qualitative data part of the study, the text documents obtained from the students' answers to the questions during the online interview were repeatedly read by the researchers, compared with the written documents received by e-mail from the students and combined in the computer environment. The documents transferred to the MAXQODA 11 software program were read several times by the researchers and the forms were codenamed M1, M², M3,, M²3. In the next stage, meaningful and relevant expressions were selected and categorized under certain themes. In the

next stage, findings and real experiences of nursing students regarding distance education were written in detail by combining the findings. Detailed descriptions were turned into short descriptions by the researchers. The visual form of the data obtained from the interviews is given in **Figure 2**.

RESULTS

The distribution of nursing students according to their sociodemographic characteristics is given in **Table 1**. The minimum age of the students participating in the study is 18 and maximum 23 years old and their average age is 20.34 ± 1.32 , 78.3% are female, 43.5% are nursing second grade, 60.9% are middle income, 78.3% live in hostels. It is seen that 100.0% of them used social media, 60.9% of them used Instagram as the most frequently used social media, and their academic grade point averages were 3.09 ± 0.29 (**Table 1**).

Thematic Results

As a result of in-depth interviews with nursing students, 5 main themes; their thoughts on distance education and clinical practices were determined as "the problems they experienced", "coping methods", "anxiety and worries",

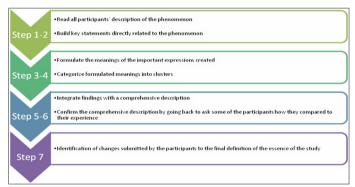


Figure 1. Colaizzi's Phenomenological Data Analysis Steps

"solution suggestions". The themes and sub-themes obtained from the interviews are given in **Table 2**.

Themes 1: Views about distance education and about the effects of distance education upon clinical practices

Nursing students thought that distance education was necessary and it was the correct action to launch distance education during the pandemic period but distance education turned out not to be a productive and effective teaching method. Two sub-themes were identified for positive and negative dimensions of distance education. Some of the statements were as follows:

Table 1. Distribution of nursing students by socio-demographic and some variability characteristics					
Code	Age	Gender	General grade point avarege	Status of using distance education before	
M1	20	Woman	3,19	No	
M ²	20	Woman	3,44	No	
M3	20	Woman	3,33	No	
M4	21	Woman	3,00	No	
M5	21	Woman	3,12	No	
M6	19	Woman	3,00	No	
M7	22	Woman	3,00	No	
M8	19	Male	3,30	No	
M9	20	Woman	3,00	No	
M10	19	Woman	2,78	No	
M11	19	Woman	3,40	No	
M12	20	Woman	3,00	No	
M13	20	Woman	2,50	No	
M14	19	Woman	3,00	No	
M15	19	Woman	2,89	No	
M16	20	Woman	3,57	No	
M17	18	Woman	2,58	No	
M18	23	Male	2,65	Yes	
M19	22	Woman	3,34	Yes	
M ² 0	21	Woman	2,88	No	
M ² 1	22	Woman	3,50	No	
M ² 2	21	Woman	3,35	No	
M ² 3	23	Woman	3,30	Yes	

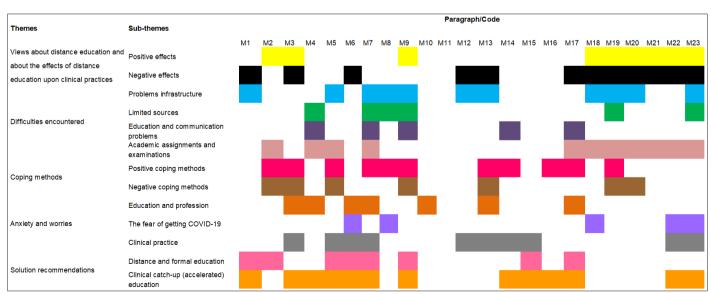


Figure 2. The visual form of the data obtained from the interviews is given.

Table 2. Category, theme, and sub-themes derived from the interviews				
Category	Theme	Sub-themes		
	Views about distance education and about the effects of distance education upon clinical practices	Positive effects Negative effects		
	Difficulties encountered	Problems related to distance education infrastructure Limited sources Asynchronous education and communication problems Academic assignments and examinations		
	Coping methods	Positive coping methods Negative coping methods		
	Anxiety and worries	Education and profession The fear of getting COVID-19 Clinical practice		
	Solution recommendations	Distance and formal education Clinical catch-up (accelerated) education		

Sub-themes 1.1. Positive effects

Some of the statements of the subtheme were presented below:

- **■**"Learning theoretical subjects through distance education was a normal process during a pandemic in terms of protecting both ourselves and our families and of continuing our education regularly ... (M²), (M3), (M9), (M18), (M19), (M²1), (M²2)
- **■**"We can watch the online courses at will and whenever we want to and thus saved time ... It is good for us to select the date and breaks of online courses..." (M²3), (M²0), (M19)

Sub-themes 1.2. Negative effects

Some of the statements made by students were given as follows:

- ■"Since we should have clinical practice as a part of our profession, I think that distance education might be problematic and learning through distance education does not have any effects upon clinical practice ..." (M1), (M3), (M12), (M13), (M17), (M²2), (M²3)
- ¥"With the possibility to cheat in online examinations, students may get unfair exam scores... It is disturbing to stay in front of the computer all the time ...Distance education restricts social life...I was unable to have the chance to listen to all the courses..." (M6), (M12), (M18), (M19), (M²0), (M²1)

Themes 2. Difficulties Encountered

The theme "Difficulties Encountered" was discussed under four sub-themes. These are "problems related to distance education infrastructure", "limited sources ", "problems related to synchronous education and communication" and "academic assignments and examinations".

Sub-themes 2.1: Problems related to distance education infrastructure

Some of the statements made were below:

☐ I had problems related to the busy system ... Course videos could not be played and I had to study them in PDF format...

Since I had been unable to watch all course videos, I thought I was undertrained in theoretical courses..." (M1), (M5), (M7), (M8), (M9), (M12), (M13), (M18), (M19), (M20), (M23).

Sub-themes 2.2: Limited sources

Some of the statements made were as follows:

- It was quite difficult for me to follow the academic topics discussed by the instructors via smartphone because I did not have a computer at home ..." (M4)
- **■**"Due to internet-related problems, I failed to watch the courses regularly; which made me stay away from education..." (M7), (M8), (M9), (M19), (M23)

Sub-themes 2.3: Asynchronous education and communication

Some of the statements were as follows:

- ■"Since courses were taught asynchronously, we were watching the videos later and we could not learn courses with instructors; our learning productivity was minimized..." (M4), (M7), (M14)
- ♣"I do not think I understood the courses enough... I noticed that I learn and understand courses better in the face to face education..." (M9), (M17)

Sub-themes 2.4: Academic assignments and examinations

Some of the statements were presented as follows:

- ■"Assignments given instead of applied courses were challenging...because examinations were online, unfairness was possible in academic grades due to the possibility to cheat in the examinations..." (M²), (M5), (M7), (M18), (M19), (M²0), (M²1)
- I'l think that assignment grades and examination system were poor and unjust ... Assignment preparation process made me learn the academic subjects in detail..." (M4), (M7), (M17), (M²2), (M²3)

Themes 3: Coping Methods

Nursing students told that they had studied a lot so that they could finish distance education courses and they joined the online courses at a time that they determined.

Sub-themes 3.1. Positive coping methods

Some of the statements were presented as follows:

■"I started to study more... I took examinations at an early hour of the day...I watched more videos about applied

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courses and tried to fill the academic gap through different sources... I later listened to courses again..." (M²), (M3), (M5), (M7), (M8), (M9), (M13), (M14), (M16), (M17)

I try to find a place with an internet connection to eliminate my internet related problems ..." (M7), (M19)

Sub-themes 3.2. Negative coping methods

Some of the statements made were below:

- **■**"I tried to close my academic gaps about the courses and system but I was not successful very much... Since courses were taught asynchronously, I could not ask questions and it was difficult..." (M²), (M3), (M5), (M9)
- **Ψ**"I could not find any solutions to course videos with bad sound quality. I tried to understand the course in this way…" (M13), (M19), (M²0)

Themes 4: Anxieties and Worries

Of nursing students' anxieties and worries were the fears that they would not be well-trained nurses and employed if the education continued in this way, they might catch COVID 19, the pandemic could spread and last longer, formal education could not be resumed and they might poorly be trained in clinical practices

Sub-themes 4.1. Education and profession

- I'l do not think I will be a good nurse if distance education goes on... I am anxious that the pandemic will result in bad outcomes for nursing and will continue... I am anxious that I won't be a good nurse in the future... (M4), (M6), (M10), (M13)
- "I think we fell behind in theoretical and applied for courses and could not learn courses enough..." (M3), (M4), (M7), (M17)

Sub-themes 4.2. The fear of getting COVID 19

- ■"I have my fears to contract COVID 19 and to remain unemployed after graduation..." (M6), (M18)
- ■"I have my fears that the outbreak would last for a longer time and lead to dramatic changes in our lives..." (M6), (M8), (M²2), (M²3)

Sub-themes 4.3. Clinical practice

- **↓**"I am worried that the pandemic may bring negative outcomes for -particularly- applied nursing courses... It is not effective to learn applied courses via distance education... Clinical practices have been interrupted..." (M5), (M6), (M7), (M12), (M²2), (M²3)
- ■"I am worried that applied courses will have been learned insufficiently... if the pandemic should continue, I am worried about applied courses...("M3), (M7), (M13), (M14), (M15), (M²3)

Themes 5: Solution Recommendations

Nursing students' future solution recommendations are that everybody should access to distance education, distance education infrastructure should be arranged according to academic departments, education should be face to face and given with a limited number of students, the number of optional courses should be increased, assignments and

examinations should be arranged, -apart from coursesdifferent videos should be uploaded to the system and clinical catch-up (accelerated) training should be implemented because the students will clinically be undertrained.

Sub-themes 5.1. Distance and formal education

- **■**"By teaching us at school, at certain hours, in certain classrooms and groups; we may have face to face courses..." (M1), (M²), (M9), (M15), (M17)
- ■"During a pandemic period; distance education should be maintained to prevent the outbreak but face to face education should be initiated as soon as possible because distance education is ineffective..." (M²), (M5), (M6), (M7)

Sub-themes 5.2. Clinical catch-up (accelerated) education

☐ Through distance education, we learned the clinical courses inadequately... We could not serve an internship... Next year, we need to receive catch-up education..." (M1), (M3), (M4), (M5), (M6), (M7), (M9), (M14), (M15), (M16), (M17), (M²2), (M²3)

DISCUSSION

With the COVID-19 pandemic, a hasty and unprepared transition to distance education became inevitable. There were shortcomings and limits as well as strengths of distance education. Among these shortcomings and limits were the restrictions imposed with the pandemic, poor technological and internet infrastructure, students' insufficient equipment like computers, limited sources, distance education infrastructure deficiencies, and anxieties, and worries about graduation. Therefore, distance education should be well planned and implemented.^[6,7,17]

In this study; nursing students expressed both positive and negative views about distance education and its implementation in clinical practices but they thought that it was not a productive and effective educational method. When the literature was investigated; results similar to our study findings were seen and distance education had positive effects upon students. Accordingly, students considered distance education less expensive had chances to re-listen to the recorded courses at times that they wanted to, and -as a result- saved time. [6,21,24] As for negative effects; it is seen that distance education did not fill the gap created by the inability to provide face to face education, prevented the students from focusing on courses, reduced their socialization, deprived them of cultural interaction, interrupted their education due to infrastructure problems and limited sources, complicated a reliable assessment and evaluation process, produced drawbacks in applied courses, led to poor online education due to physical factors and brought ambiguity for future. [21,24,26] With these results; we are of the opinion that distance education had both positive and negative effects but was not proper for applied sciences such as the nursing profession and thus, distance education infrastructure should be optimally structured and strengthened and its deficiencies should be eliminated for applied professions.

It is argued that distance education may complicate a reliable and secure assessment and evaluation and students with no sufficient technological means will experience difficulties in distance education.[21] In the current study; nursing students' Problems related to distance education infrastructure were as follows: they often suffered from internet disconnections, had difficulties connecting the system and playing course videos; as for the Limited sources; the students did not have computers nor internet connection or had a poor internet connection at home. did not have a comfortable study environment, had problems related to different computer operating programs and had to learn applied for courses asynchronously via distance education but nursing was an applied and practical profession; as for Asynchronous education and communication; the students suggested that learning courses asynchronously prevented them from listening to instructors and learning courses effectively, lowered their course productivity, caused communication problems; as for Academic assignments and examinations; the students pointed out that assignments and examinations were insufficient and unfair. When the literature was looked at; findings similar to ours were noted and poor infrastructure of internet/ computer and lack of sources interrupted their education, made a reliable and secure assessment and evaluation difficult, weakened the courses that required application and practice. and lowered student-instructor communication.[11,17,21,27,28] These results made us conclude that distance education infrastructure should be strengthened, sources should be enriched, courses should be given asynchronously and synchronously depending on the qualities of the professions, assignments and examinations should be securely and safely uploaded to the system in a way that will prevent cheating in exams and solutions to these problems should be found.

In this study; nursing students employed positive/negative coping methods in distance education during the COVID-19 pandemic, studied more, participated in courses at times that they determined, and tried to somehow get connected to the internet. Yet, there were also those who failed to cope with problems and -therefore- tried to be patient. Since the number of relevant studies was limited, no sufficient amount of literature support could be found; which made us suggest that students should be encouraged and backed to use positive coping methods in order to solve these problems.

The ambiguity of COVID-19 pandemic and distance education, which led to a hasty and unprepared transition, increased anxiety and fear in students, and complicated efforts to focus on courses. [11,22,29-33] In this study; the nursing students' Anxieties and worries about distance education in the COVID-19 pandemic involved the fears that they would not be good nurses and employed if the education continued in this way, they might catch COVID 19, pandemic could spread and last longer, formal education could not be resumed and they might fall behind in clinical practices. In literature are similar results indicating that students feel hopeless and fearful, are afraid that both they and family members can contract the disease and have fear of death. [11,21]

Among the Solution Recommendations; nursing students underlined the necessity that everybody should have an access to distance education, distance education infrastructure should be arranged and planned according to academic departments, education should be realized with a limited number of participants and face to face, the number of optional courses should be increased, assignments and examinations should be re-designed, different videos should be uploaded to system apart from courses and clinical catch-up (accelerated) training should be implemented because they are poorly trained. The literature points out that instead of distance education, other alternative methods should be developed, different materials^[26] and web interfaces should be designed for applied courses, [11, ^{17,24]} course curriculum should be changed and updated after COVID-19 vaccine has been found and universities should support those students who live in rural areas and do not have internet access.[17]

CONCLUSION

The study provides an in-depth view of nursing students' experiences in distance education. Opinions about the positive and negative effects of distance education, students' coping methods, and shortcomings can contribute to distance education students and educators. Research can be expanded by looking at other nationwide educational programs.

ETHICAL DECLARATIONS

Ethics Commite Approval: Ethics approval was obtained from the Selcuk University Non-Interventional Clinical Research Ethics Committee (Decision No: 2020/317). This study was conducted in accordance with the Good Clinical Practices and Reporting Standards of Qualitative Researches of the Declaration of Helsinki.

Informed Consent: All patients signed the free and informed consent form.

Referee Evaluation Process: Externally peer-reviewed.

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