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Opinions of the Families of Nursing Students on Distance Education During the Covid-19 Pandemic

Covid-19 Pandemi Sürecinde Hemşirelik Öğrencilerinin Ailelerinin Uzaktan Eğitimle İlgili Görüşleri

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Abstract

Aim: Distance education is an interdisciplinary field that aims to remove the limitation between educator, learner, and learning resources and of uses existing information and communication technologies for this purpose. Maintaining social distance, especially during the pandemic, has been instrumental in protecting and maintaining the health of both students and educators. However, distance education's entry into our lives as a necessity during the pandemic has brought many problems. The fact that the education environment left the classroom and came into the home, and that time shared with family members is now used for education, makes it necessary to conduct studies to determine families' experiences, attitudes, and opinions about distance education. This study aimed at determining families' opinions of undergraduate and graduate nursing students on distance education during the Covid-19 pandemic.

Methods: This is a descriptive and cross-sectional study. The study was conducted with 407 participants. The data were collected between the 9th and 10th months of the pandemic, with the data collection tool developed by the researchers.

Results: The families have a negative opinion on distance education, and these opinions were affected by their negative experiences and problems. The families found the low costs and the increased time the students spent with their families to be positive aspects of distance education. The families complained about connection problems, the student spending too much time on the computer and about the home environment needing to be more suitable for education. However, negative opinions of the families included that distance education is insufficient in conveying professional skills and that distance education is not suitable for nursing education. The opinions of Y-generation family members, those with graduate education, and those with a permanent internet connection at home had more positive opinions than the others.

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Conclusions: Distance education has become an integral part of our lives. Therefore, it is essential to unearth problems regarding distance education and develop solutions. Study results on the opinions, attitudes, and experiences of all distance education stakeholders will contribute to distance education practices.

Özet

Amaç: *Uzaktan eğitim, eğitimci, öğrenen ve öğrenme kaynakları arasındaki sınırlamayı ortadan kaldırmayı amaçlayan ve bu amaçla mevcut bilgi ve iletişim teknolojilerinden yararlanan disiplinler arası bir alandır. Özellikle pandemi döneminde sosyal mesafenin korunması hem öğrencilerin hem de eğitimcilerin sağlığının korunmasına ve sürdürülmesine vesile olmuştur. Ancak pandemi sürecinde uzaktan eğitimin bir zorunluluk olarak hayatımıza girmesi birçok sorunu da beraberinde getirdi. Eğitim ortamının sınıftan çıkıp eve gelmesi ve aile bireyleri ile paylaşılan zamanın artık eğitim için kullanılması, ailelerin uzaktan eğitim ile ilgili deneyimlerini, tutumlarını ve görüşlerini belirlemeye yönelik çalışmaların yapılmasını gerekli kılmaktadır. Bu araştırma, lisans ve lisansüstü hemşirelik öğrencilerinin ailelerinin Covid-19 pandemisi sürecinde uzaktan eğitime ilişkin görüşlerini belirlemek amacıyla yapılmıştır.*

Yöntem: *Bu tanımlayıcı ve kesitsel bir çalışmadır. Çalışma 407 katılımcı ile gerçekleştirilmiştir. Veriler, araştırmacılar tarafından geliştirilen veri toplama aracı ile pandeminin 9. ve 10. ayları arasında toplanmıştır.*

Bulgular: *Çalışmada ailelerin uzaktan eğitim konusunda olumsuz görüşe sahip olduğu ve bu görüşlerin yaşadıkları olumsuz deneyim ve sorunlardan etkilendiği belirlenmiştir. Aileler, uzaktan eğitimin maliyetinin düşük olmasını ve öğrencilerin aileleriyle geçirdikleri sürenin artmasını olumlu bulmuşlardır. Ancak uzaktan eğitim sürecinde yaşanan bağlantı sorunlarından, öğrencinin bilgisayar başında fazla vakit geçirmesinden ve ev ortamının eğitime uygun olmamasından şikayetçi oldular. Ayrıca aileler; uzaktan eğitimin mesleki becerileri aktarmada yetersiz olduğunu ve uzaktan eğitimin hemşirelik eğitimi için uygun olmadığını belirtmiştir. Çalışmada Y kuşağı aile bireylerinin, lisansüstü eğitimi olanların ve evinde sürekli internet bağlantısı olanların uzaktan eğitime ilişkin görüşlerinin diğerlerine göre daha olumlu olduğu belirlenmiştir.*

Sonuç: *Uzaktan eğitim artık hayatımızın ayrılmaz bir parçasıdır. Bu nedenle uzaktan eğitimle ilgili sorunların ortaya çıkarılması ve çözüm önerilerinin geliştirilmesi önemlidir. Uzaktan eğitimin tüm paydaşlarının görüş, tutum ve deneyimlerine ilişkin araştırma sonuçları, uzaktan eğitim uygulamalarına katkı sağlayacaktır.*

INTRODUCTION

Many changes have been experienced in the global arena since the declaration of Covid-19 as a pandemic by the World Health Organization (WHO) in March 2020 (1). Many restrictions and measures taken worldwide to prevent the spread of the epidemic are still ongoing. One of the areas most affected by these restrictions that have experienced a dramatic change is undoubtedly education (2-5). Students and their families at different educational levels, from formal education to non-formal, pre-school, and higher education, have been affected by this change. According to the United Nations Educational Scientific and Cultural Organization (UNESCO), the Covid-19 pandemic has affected more than 1.5 billion students in over 165 countries (5,6). During this period all higher education institutions suspended face-to-face education, and switched to distance education (DE) (7). As a result, higher education institutions started to develop their DE infrastructures, classes were held asynchronously/synchronously using technology-supported methods and materials, and exams were conducted on DE platforms (3, 7, 8). In April 2020 it was decided that higher education institutions would switch to DE in Turkey (8).

DE an interdisciplinary field that aims to remove the limitation between educator, learner, and learning resources and uses existing information and communication technologies for this purpose (9, 10). DE enables many people's active and simultaneous participation in the educational process in different settings (9,11). Significant advantages are that DE is cheaper compared to face-to-face education and that students and educators save time (12, 13). Maintaining social distance, especially during the pandemic, has been instrumental in protecting and maintaining the health of both students and educators (12, 14). However, DE's entry into our lives as a necessity during the pandemic has brought many problems with. The issue of equal opportunity in education has been brought to the agenda again (5). Studies and reports emphasized that not all students in the international arena and Turkey have the same opportunities and that there are significant shortcomings/differences in internet access, technological support, and infrastructure (14-19). In addition, internet connection difficulties, blackouts, technical problems etc. lead to problems in reaching DE (2, 14, 19, 20).

Examination of studies on DE during the pandemic reported that the student's interest, satisfaction level, and motivation were low (2, 14, 17, 20, 21, 22). Mainly the home environment negatively affects students' experience regarding DE. A high number of family members, noisy home environment, the home layout not being suitable for online education, responsibilities within the family, not being able to create balance between home and school life, and families not supporting students in the learning process, cause students to negative experiences with DE (2, 12, 13).

Pandemic process, fear of catching/transmitting the disease, economic uncertainty, and coping with the challenges of DE cause stress in students. (2, 7, 23). It was reported that during DE most of the students experienced exam anxiety due to reasons related to the e-exam platform and internet connection, that this stress caused behavioral changes in students, that students consumed fore fast food and caffeine, and that their sleep pattern changed (4, 21, 24). A study conducted with nursing students reported that students were worried about their professional development because they had no clinical training during DE, and that plans for the future and professional expectations of especially seniors were negatively affected (4).

Examination of the literature showed that many studies evaluate the opinions/experiences on DE of students and educators. However, the number of studies conducted with the families of the students is limited. In limited studies, it has been reported that families complain about technical problems (connection problems, etc.) in the distance education process and are concerned about their children's education (25). The fact that the education environment left the classroom and came into the home, and that time shared with family members is now used for education, makes it necessary to conduct studies to determine families' experiences, attitudes, and opinions about DE. This study aims at determining the opinions of families, one of the stakeholders of the education system, on DE. The results to be obtained will be helpful in making improvements and regulations regarding DE programs.

In line with the purpose of the study, answers to the following questions are sought:

-What are the experiences of nursing students' families about DE?

-What are the main problems and recommendations regarding DE of nursing students' families?

-What are the opinions of nursing students' families on DE?

-What are the factors affecting the opinions of nursing students' families on DE?

METHODS

Design

This is a descriptive and cross-sectional study. Since the study takes account a certain period in the Covid-19 pandemic and aims to determine

families' opinions on distance education, it was planned in a descriptive and cross-sectional manner.

Participants

According to Turkish Higher Education Institutions' annual student numbers report, there are 91653 nursing and midwifery students in the 2020-2021 academic year (26). Based on the 95% confidence interval and 0.05% error rate, the sample size was determined as 383. The sample included family members (mother, father, spouse) of undergraduate and graduate nursing students who agreed to participate in the study. The study was conducted with 407 participants.

Data Collection Tools

Data collection tool, which was prepared by the researchers in line with the literature (2-5,20-24,25) consists of four parts.

The first part contains questions regarding the participants' sociodemographic data (age, gender, marital status, educational status, profession).

The second part contains questions about the participants' experiences regarding DE. It was asked how many people used DE at home, what the level of education of the student was (undergraduate, graduate), what the relationship to the student was, if there was a constant internet connection, with what tool the student was accessing DE, how much time the student spent for DE, and how the student followed the courses.

In the third part, the participants were given multiple-choice questions with more than one possible answer on the problems they experienced with DE and on their recommendations. The "other" option was added for the participants to express their opinions. The results section included all the participants' responses, but further analysis was not performed for open-ended questions as the answers were too few.

The last part consists of 19 statements, including the opinions on DE of families prepared by the researchers. The participants were asked to score each statement from 1 to 5, whereas one corresponding to "I strongly disagree" and 5 to "I strongly agree". There are 14 positive and five negative statements, and the negative statements were scored in reverse. A minimum score of 19 and a maximum score of 95 can be obtained from the statements section. An increase in the total score suggests that families have a positive opinion of DE. The internal consistency analysis of the form of the statement consisting of 19 items was performed, and the Cronbach alpha coefficient was as 0.94. Examples of the statements:

•DE enables effective learning.
•DE is a waste of time for the students.
•DE is sufficient in conveying professional knowledge.
•DE causes stress in students.
•DE is cheaper.

Pilot Study

The pilot study was conducted with 30 participants. In the pilot study, participants were asked to evaluate the data collection tool in scope and clarity. At the end of the pilot study, the revised form was finalized and used as a data collection tool. The 30 participants of the pilot study were not included in the main study.

Data Collection Process

The data were collected from December 2020 to February 2021, in the 9th and 10th months of the pandemic. The data collection tool was prepared in the form of an Online Survey. Online Survey was shared on social media networks used by nurses and nursing students (Twitter, Facebook, Student Groups, WhatsApp, Telegram, etc.), and the students were asked to pass them on to family members. The snowball sampling method was used in the study, and each student's family member was included.. In the study, city, and region

limitations were not applied. The Online Survey was disabled after the target sample was reached.

Data Analysis

Statistical Package for Social Sciences (SPSS) version 21 was used to analyze the data. Data analysis was performed using mean, standard deviation, frequency, percentage, chi-square, t-test, and One-Way ANOVA.

Ethical Consideration

Ethics committee approval (09.12.2020/161413) was obtained from İstanbul University-Cerrahpaşa before the study. The first page of the Google Survey included an informed consent section that the participants approved after reading, as data were collected online, not face-to-face. Only those who agreed to participate in the study could fill out the information form. Personal information was not included in the Google Survey form, and e-mail and GSM information of the participants were blocked. It was decided to keep the Google Survey forms digitally encrypted and to be destroyed after five years with professional consultancy.

RESULTS

The Participants' Sociodemographic Characteristics and Experiences Regarding Distance Education

The participants' mean age was 42.23±12.14 years (min: 14-max: 73), 58.2% belonged to Generation X, 70.3% were women, and 76.9% were married. Of the participants, 40.8% were housewives, 18.4% were government employees, and 10.8% were workers. The participants' sociodemographic characteristics and their experiences regarding DE are given in Table 1.

Table 1. The Participants' Sociodemographic Characteristics and Experiences Regarding Distance Education (N=407)

			n	%
Sociodemographic characteristics	Age-Generation	Generation Z (2000-)	46	11.3
		Generation Y (1980-1999)	90	22.1
		Generation X (1965-1979)	237	**58.2**
		Baby Boomer Generation (1946-1964)	34	8.4
	Gender			
		Female	286	**70.3**
		Male	121	29.7
	Educational status of parent			
		Literate	25	6.1
		Primary School	171	**42.0**
		High School	108	26.5
		Bachelor's degree	89	21.9
		Master's degree	14	3.4
	Educational status of student			
		Undergraduate student	340	**83.5**
		Graduate (Master/PhD) student	67	16.5

				n	%
Experiences regarding DE	Stable internet connection at home	Yes		347	**85.3**
		No		60	14.7
	Students' participation status at DE	Participates		390	**95.8**
		Does not participate		17	4.2
	Number of people participating DE at home	1		141	34.6
		2		146	**35.9**
		3 and more		120	29.5
	Time the student spends for DE	Less than 1 hour		28	6.9
		1-2 hours		62	15.2
		3-4 hours		123	**30.2**
		5-6 hours		115	28.3
		More than 6 hours		79	19.4
	Relationship degree to the student	Mother		214	**52.6**
		Father		86	21.1
		Spouse		107	26.3
	With what tool does the student access DE?	Computer	Yes	324	**79.6**
			No	83	20,4
		Tablet	Yes	30	7.4
			No	377	92,6
		Phone	Yes	250	**61.4**
			No	157	38,6
	How does the student follow the classes?		Yes	353	**86.7**
		Listening to live classes	No	54	**13,3**
		Listening to recordings	Yes	208	51.1
			No	199	48,9
		Reading class notes	Yes	200	49.1
			No	207	50,9

Problems Regarding Distance Education Experienced by the Participants

Of the families, 76.2% said that they had problems with the internet connection at home, 74.9% said that their student spent too much time with the computer/phone, and 56.5% said that the home environment is unsuitable for DE (Table 2). An open-ended question was asked where the participants could add their opinions about DE. The participants stated that DE limits communication and socialization within the family, that applied courses are not effective, that participation of the students cannot be achieved, that there are too many students in courses, that cheating during tests cannot be prevented, and that the technical knowledge about DE is insufficient.

Upon asking the families for their recommendations, 77.1% said that students with no internet connection or computer should be supported, 66.3% said that students should be supported in case of technical problems, and

56.8% said that applications that draw students' attention should be used (Table 2). Only 20.1% of the participants wanted DE to continue as supportive education after the pandemic. To the open-ended question, where the participants were asked for other opinions, they said that the time of the courses should be shortened, that attendance should not be compulsory, that working areas outside the own home should be established, and that graduate education should continue online.

Table 2. Problems And Recommendations of the Nursing Students' Families Regarding Distance Education* (N=407)

			n	%
Problems	Technical problems (internet outage, connectivity problems, etc.)	Yes	310	**76.2**
		No	97	23,8
	Too much time spent with the computer/phone	Yes	305	**74.9**
		No	102	25,1
	Not being able to create a quiet environment due to a crowded home	Yes	230	**56.5**
		No	177	43,5
	Students not paying enough attention to the courses	Yes	165	40.5
		No	242	59,5
	Not having sufficient computers, phones, etc.	Yes	158	38.8
		No	249	61,2
	The student is not receiving enough support against elusive subjects	Yes	145	35.6
		No	262	64,4
	Too much homework	Yes	142	34.9
		No	265	65,1
Recommendations	Support students who do not have an internet connection or computers	Yes	314	**77**.1
		No	93	22,9
	Support of students in terms of technical problems	Yes	270	**66.3**
		No	137	33,7
	Using applications that draw the attention of students	Yes	231	**56.8**
		No	176	43,2
	Conducting courses in smaller groups	Yes	126	31.0
		No	281	69,0
	Using homework etc., instead of exams for evaluation	Yes	120	29.5
		No	287	70,5
	Increasing the recess time between courses	Yes	112	27.5
		No	295	72,5
	Continuing with DE as supportive education after the pandemic	Yes	82	20.1
		No	325	79,9

**** More than one possible answer was marked***

Participants' Opinions on Distance Education and Affecting Factors

The family's mean opinions on distance education score was determined as 41.82□15.68 (min: 19- max: 95). The score obtained shows that the family's ODE was negative. Of all statements, the rate of agreement was higher for "DE is cheaper", "DE enables the students to spend more time with their families", and "DE is a waste of time for students". The statements "DE is sufficient in conveying professional skills", and "DE is suitable for the education received" were least agreed with (Table 3)

Table 3. Opinions of the Families of Nursing Students Regarding Distance Education (N=407)

	Mean	SD
DE is more efficient than face-to-face education.	1.79	1.09
DE increases the interaction between students.	1.66	0.86
Students use their time more actively in DE.	2.32	1.33
DE enables students to spend more time with their families.	**3.13**	1.34
DE is a waste of time for the students.	**3.07**	1.34
DE enables students to be responsible for learning.	**2.73**	1.26
DE is not suitable for applied courses.	1.56	1.03
DE is sufficient in conveying professional knowledge.	1.99	1.13
DE is more beneficial for students.	1.84	1.01
DE enables effective learning.	2.05	1.08
The home environment is suitable for DE.	2.60	1.30
DE is sufficient in conveying professional skills.	1.62	0.88
DE negatively affects the students' health	2.15	1.15
DE is cheaper.	**3.45**	1.23
DE negatively affects the students' social skills	1.97	1.05
DE causes stress in students.	2.12	1.16
Students are more interested in DE.	2.17	1.19
The education that the students receive right now is suitable for DE.	1.62	0.88
I would like my student to continue with DE after the pandemic.	1.98	1.27
Total score	41.81	15.68

Table 4 shows the families' opinions on DE and sociodemographic characteristics and analysis of their experiences and problems with DE. A comparison of the families' sociodemographic characteristics and opinions at there was a significant difference between age (generation), marital status, and educational status. Participants who belonged to the Generation Y, and had received graduate education had more positive opinions on DE than the others. It was determined that there were differences between DE experiences and opinions on DE. Participants of students receiving graduate/Ph.D. education had more positive opinions. Participants who had a constant internet connection were more positive towards DE. The opinions on DE got more negative as the number of people at home receiving DE increased. A significant difference was found between time spent for DE and opinions on distance education. Participants whose students' spend 5-6 hours for DE had more favorable opinions of DE compared to the others. A significant difference was found between the type of DE participation and opinions on DE. The opinions of participants whose students were attending live classes were more positive (t=4.45 p=0.00). A significant difference was found between the participants' problems encountered during DE and their opinions on distance education. The opinions on distance education of those who experienced problems with DE had more negative opinions on distance education compared to others.

Table 4. Families' Opinions on Distance Education and Affecting Factors

	Opinions on distance education		*Mean*	*SD*	*F/t*	*p*
Sociodemographic characteristics	Age-Generation	Generation Z (2000-)	38.28	13.5	2.87	**0.03**
		Generation Y (1980-1999)	**45.37**	18.3		
		Generation X (1965-1979)	40.84	14.87		
		Baby Boomer Generation (1946-1964)	43.94	14.72 .		
	Marital status	*Married*	**43.27**	16.29	3.47	**0.00**
		Single	36.94	12.30		
	Educational status of parent	Literate	36.52	14.44	6.72	**0.00**
		Primary School	42.69	15.38		
		High School	41.04	16.84		
		Bachelor's degree	39.59	13.57		
		Master's degree	**60.57**	11.81		
	Relationship degree to the student	Mother	**43.09**	16.04	3.65	**0.03**
		Father	37.81	14.21		
		Spouse	42.46	15.69		
Experiences with DE	The educational level of student	Undergraduate	39.66	15.18	- 6.54	**0.00**
		Graduate	**52.73**	13.55		
	Constant internet connection	Yes	**42.95**	15.85	4.12	**0.00**
		No	35.21	12.93		
	Students' participation status at DE	Participates	**42.24**	15.72	2.63	**0.01**
		Dos not participate	32.05	11.18		
	Number of people participating in DE at home	1	**45.40**	15.38	8.77	**0.00**
		2	41.97	16.59		
		3 and more	37.40	13.79		
	Time the student spends for DE daily	Less than 1 hour	33.10	11.64	6.18	**0.00**
		1-2 hours	39.51	14.51		
		3-4 hours	42.60	15.29		
		5-6 hours	**46.46**	16.61		
		More than 6 hours	38.69	14.99		

	Opinions on distance education		*Mean*	*SD*	*F/t*	*p*
Problems regarding DE	Technical problems	Yes	39.44	14.30	-5.65	**0.00**
		No	49.39	17.47		
	Too much time spent with the	Yes	39.84	14.62	-4.13	**0.00**
		No	47.71	17.27		
	Crowded home/not being able to create a	Yes	36.20	12.80	-8.99	**0.00**
		No	49.10	16.11		
	Students not paying enough attention to	Yes	45.40	15.38	-9.86	**0.00**
		No	33.46	11.00		
	Not having sufficient computers, phones,	Yes	47.50	15.86	-6.36	**0.00**
		No	45.57	16.36		
	The student is not receiving enough	Yes	35.93	13.03	-5.85	**0.00**
		No	45.07	16.09		

SD Standard Deviation t: t test F: ANOVA test

DISCUSSION

Half of the participants of this study, which was conducted with family members of undergraduate and graduate nursing students, consisted of mothers, followed by spouses and fathers. It was determined that more than one person received DE in most families and that the ODE was negatively affected as the number of students at home increased. The number of elementary and high school students exceeded over 18 million in Turkey in 2020, and there are nearly 8 million university students (27, 28). These data indicate that 31 of 100 people in Turkey are students. In nursing, there are over 90 thousand undergraduate nursing students, followed by 3 thousand graduate nursing students (26). With the declaration of Covid-19 as a pandemic, works have been carried out to ensure the continuity of education in Turkey. During this process, classes were conducted by the Ministry of National Education with the Education Information Network (EBA), which was provided on both television and online platforms (27). In April 2020, higher education would continue as DE (8). As a result, universities have developed their existing technological infrastructure, and classes have been conducted synchronously/asynchronously (3, 8). The theoretical and applied classes of the complete nursing curriculum have been realized synchronously/asynchronously via DE. Some schools conducted the practical course of senior students in the clinic face-to-face, some schools made up practical lessons in the summer, and some applied a hybrid system (29). Although DE-related applications differ according to schools, classes were generally conducted synchronously and asynchronously. The high number of students receiving DE in every home was an expected result of this development. In addition, having more than one person at home receiving DE creates difficulties regarding internet access (computer, phone etc.). A significant part of the participants stated that their students joined DE and attended live classes.

Internet and connection problems were the main problems that families experienced during DE. The increase in internet use and overload in all areas of life, including education, all over the country and world, is thought to be effective in this problem. Literature examination showed that technical problems are the most significant limitation of DE (2,4,14,19,20). Almomani et al. (2021) stated that internet access, internet

speed and internet quality were the most significant limitations of DE (19). Abuhammad (2020) reported that internet outages, connectivity problems, and slow internet speed are common problems experienced by families (25). The current results support the literature, and technical problems appear as the most critical problems affecting DE both globally and in Turkey.

The families in the study stated that DE limits socialization. It should be kept in mind that social restrictions during the pandemic may also contribute to this problem. Examination of the literature showed that DE limits interaction between students and student-teachers (13,14,25,30). Pozdnyakova and Pozdnyakov (2017) stated that the lack of communication experienced during DE may cause students to feel lonely. The same study reported that the inability of faculty members to observe students' emotions, to be aware of their worries, and to respond quickly to their needs were also limitations of DE (13). Abuhammad (2020) reported that insufficient support of students and lack of communication are among the most discussed topics regarding DE (25). Langegård et al. (2021) stated that face-to-face communication with students, classmates and educators is an essential factor in study motivation and that the communication problem experienced negatively affected their motivation (30). Our finding is similar to the literature, emphasizing that lack of communication is a crucial problem experienced in DE. Analyzes showed that problems experienced by the families during DE, negatively affected their ODE. All problems experienced, regardless of their type and content, lead to the same negative result for DE. The experiences of families who stated that they did not have difficulties in distance education were more positive. It is thought that the effective management of DE may impact this result.

Examination of the families' recommendations regarding DE showed that a few wanted DE to continue as supportive education after the pandemic. In other studies, it has been stated that the rate of students wanting DE to continue after the pandemic was meager (31). It's seen that the views of families and students are similar. It is thought that the negative experiences regarding DE and the pandemic caused this result. In the current study the families suggested to shorten the courses durations and create study areas outside the home. Previous studies stated that the home environment is unsuitable for DE (2,12,13). In the current study, a significant portion of the families stated that they had problems due to the inability to create a quiet environment in the crowded home. Previous studies reported that many family members, and a noisy home environment causes disability to focus on the lesson and distraction (2,12,14,31) Aguilera-Hermida (2020) reported that the home is a relaxation area for the students that there should be studying areas outside the home, and that it is hard for them to be productive at home (2). Sindiani et al. (2020) stated that the inability to create an appropriate/quiet environment leads to negative experiences regarding DE, and Hussein et al. (2020) reported workload at home and lack of discipline as additional causes (2, 12,14). As a result, our study findings align with the literature and show that the home environment is unsuitableand in line with the literature and that the home environment is not suitable for DE for families and students.

The study results showed that the opinions on DE are generally negative. The fact that family members of generation Y and those with a postgraduate education had more favorable opinion, maybe because this group is more familiar with technology and the internet (32, 33). Although the participants thought that DE is cheaper and that it enables the students to spend more time with their families, the mean scores are still low. It is well-known that DE is a cost-effective application (12, 14). It has been seen that families whose children live outside the city have a more positive view of distance

education due to the decrease in costs such as transportation and accommodation in the distance education process. Aguilera-Hermida (2020) similarly reported that the time spent with the families increased during DE, which supports our finding (2).

In the current study the families' least agreed with the statement "DE is sufficient in conveying professional skills". In applied professions such as nursing, the issue of how to gain professional skills during DE is highly discussed. Peloso et al. (2020) stated that most students were worried by the disruption of their clinical and vocational education during DE (31). Similarly, Kürtüncü and Kurt (2020) reported that nursing students complained because they could not do laboratory and clinical applications (34). Puljak et al. (2020) reported that most students said they were worried about their practical training and that this would cause permanent problems in the future (17). The literature examination showed that students were alsoconfused about their professional skills. Our finding shows that families are also aware of students' concerns and that skill development is an essential problem in DE.

Another statement the families' least agreed with is that, that DE is suitable for the education received by their student. The families thought that nursing education was not suitable for DE. Literature examination showed that nursing students also thought that nursing education is not suitable for DE. Nursing students stated that they thought negatively about DE, and that they did not want nursing education to be thoroughly carried out by DE (34, 35). As a result, the study findings support the literature and families think that nursing education cannot be entirely provided with DE.

The families' experiences with DE affect their opinion of DE. The positive opinions of those with a constant internet connection and those with only a few family members participating in DE may be linked to fewer problems experienced with DE.

Limitations

Our study was conducted with 407 parents who agreed to participate. Snowball sampling was used. Therefore, research findings cannot be generalized. In addition, the difficulty of reaching families is another research limitation.

CONCLUSIONS

The study findings showed that the families have a negative opinion on distance education, and these opinions were affected by their negative experiences and problems. The negative attitude of families towards DE, who are one of the stakeholders of the education system, will affect the education process negatively. The findings showed that nursing education cannot be thoroughly carried out with DE, and that it is especially insufficient in conveying and developing professional skills. In addition, it was also pointed out that DE limits students' social interaction and that the home environment is not suitable for education. Now, DE has become an integral part of our lives. Therefore, determining the opinions, attitudes, and experiences of all stakeholders of DE will guide DE applications. In the light of the data obtained in the study, we recommend to;

- Support students with insufficient internet connection and computers,
- Meet the technological requirements of each student during DE,
- Structure appropriate courses according to DE by considering the learning outcomes of the courses,
- Include activities that will increase the communication of students with each other and faculty members in the lessons,
- And to create suitable working environments for DE.

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