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Opinions of NKU Faculty of Medicine Intern and Resident Doctors on Distance Medicine Education During the COVID-19 Pandemic Period

NKÜ Tıp Fakültesi Stajyer ve Intern Doktorların COVID-19 Pandemi Dönemindeki Uzaktan Tıp Eğitimine İlişkin Görüşleri

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ABSTRACT

Aim: Throughout world history, people in the pandemic have not only been in danger of their physical health but also seriously affected their mental health. To prevent the spread of the virus during the COVID-19 pandemic, the Council of Higher Education of our country has closed schools and conducted education and training via online education. Therefore, the anxiety, uncertainty and closure of schools by the epidemic caused anxiety. The aim of our study; The effect of the COVID-19 pandemic on medical faculty student education is to evaluate the satisfaction of students from distance education applications.

Materials and Methods: Our study is a cross-sectional descriptive type and was conducted on 321 students studying in the 4th, 5th and 6th grades Tekirdağ Namık Kemal University Faculty of Medicine in the 2021-2022 academic year. A survey including students' sociodemographic characteristics and distance education perspective was applied to collect data. The data were evaluated with statistical analysis.

Results: Of the participating students, 85 were in 4th-grade, 157 were in 5th-grade, 79 were 6th-grade medical students. Answers to the question "If there was a second choice, would you choose the faculty of medicine?" 119 stated that they would choose the medical faculty again, 102 stated that they would not, and 100 stated that they were undecided. Answers to the question "What is your preferred education system option from today" 17 of the students preferred only the online education system, 127 only the face-to-face education system, and 177 preferred the system with online and face-to-face education have stated.

Conclusion: In terms of students' answers to the survey, it was seen that their level of perspective on distance education was undecided and it was determined that many factors affected distance education satisfaction. As a result, medical faculty students' anxiety increased during the pandemic period and they were less satisfied with the distance education system.

Keywords: Medicine, pandemic, online education, distance medicine education

ÖZ

Amaç: Dünya tarihinde pandemiler, kişileri yalnızca fiziksel sağlıkları yönünden tehlikeye atmakla kalmayıp aynı zamanda ruhsal sağlıklarınıda ciddi düzeyde etkilemişdir. COVID-19 pandemisinde virüsün yayılımını önlemek amacıyla Yükseköğretim Kurulu, okulların bir süreliğine kapatılarak eğitim-öğretimin uzaktan eğitimle yapılması yönünde karar almıştır. Dolayısıyla salgının kişilerde yarattığı endişe ve belirsizlik, ayrıca okulların kapanması öğrencilerin akademik geleceklerinde endişe ve kaygıya neden olmuştur. Çalışmamızın amacı; COVID-19 pandemisinin tıp fakültesi öğrenci eğitimi üzerine etkisi, öğrencilerin uzaktan eğitim uygulamalarından memnuniyet durumlarının değerlendirilmesidir.

Gereç ve Yöntem: Çalışmamız kesitsel tanımlayıcı tipte olup, 2021-2022 eğitim ve öğretim yılında Tekirdağ Namık Kemal Üniversitesi Tıp Fakültesi 4, 5 ve 6. sınıfta eğitim alan 321 öğrenci üzerinde yapılmıştır. Verilerin toplanmasında öğrencilerin sosyodemografik özelliklerini ve uzaktan eğitime bakış açısı içeren bir anket uygulanmıştır. Veriler, istatistiksel analizlerle değerlendirilmiştir.

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Bulgular: Katılımcı öğrencilerin 85'i 4. sınıf, 157'si 5. sınıf ve 79'u 6. sınıf tıp öğrencileriydi. Öğrencilerin "İkinci bir tercih şansı olsa tıp fakültesini seçer miydiniz?" sorusuna; 119'u tekrar tıp fakültesini seçeceğini, 102'si seçmeyeceğini, 100'ü ise kararsız olduğunu belirtmişlerdir. "Bugünden itibaren tercih ettiğiniz eğitim sistemi seçeneği nedir?" sorusuna öğrencilerin 17'si sadece çevrimiçi eğitim sistemini, 127'si sadece yüz yüze eğitim sistemini, 177'si ise çevrimiçi ve yüz yüze eğitimin beraber olduğu sistemi tercih ettiğini belirtmişlerdir.

Sonuç: Öğrencilerin ankete vermiş oldukları cevaplar açısından, uzaktan eğitime bakış düzeylerinin kararsız olduğu görülmüştür ve uzaktan eğitim memnuniyetini pek çok faktörün etkilendiği saptanmıştır. Sonuç olarak tıp fakültesi öğrencilerinde pandemi döneminde endişe artmış olup uzaktan eğitim sisteminden daha az memnun kalmışlardır.

Anahtar Kelimeler: Tıp, pandemi, uzaktan eğitim, uzaktan tıp eğitimi

INTRODUCTION

The aim of medical education is to train physicians to maintain the healthy state of the whole society[1,2]. Education is an active process that is constantly developing and changing. All kinds of events affecting human beings affect education[3]. In our country, the face-to-face education system is at the forefront in medical education and the "National Core Education Program" is taken as a guide by faculties to establish basic standards[4].

One of the tools that can be utilized in medical education is distance education. The United States Distance Learning Association defines distance education as the delivery of education to distant people through electronic means such as video, graphics, satellite, computer, multimedia technology[5].

The aim of distance education is to provide individuals with the opportunity to receive education and training through systems that keep pace with developing technology and contribute to education independently of time and space by eliminating time and geographical restrictions that may cause disruption of education[6]. The process that forms the basis of distance education started with the reproduction of written resources by printing them and thus making them suitable and easily accessible for distribution. It then took its current form with the integration of computer-aided systems, the use of multimedia tools and techniques, and fast and cost-effective access to content via the internet. Now, distance education is accepted as a support to formal education and as an education technique in its own right[7].

Although distance education has many benefits such as ensuring the sustainability of education and lifelong learning, reducing educational costs by having students and instructors in different places, it has some limitations in terms of method and timing[8]. In distance education, where communication and interaction are less compared to face-to-face education, it is necessary to plan, implement and evaluate the learning processes very well in cooperation with students and teachers in order to minimize the limitations and to ensure the successful completion of the education process[9].

Bringing students online brings to light deep inequalities in the education system (lack of device ownership, lack of secure internet connection, power and awareness of parents, etc.). In addition, many factors such as lack of infrastructure (software, hardware, etc.), economic factors, lack of technical staff, insufficient awareness of the society and especially students, regional differences in the use of information technologies constitute obstacles to e-learning and thus distance education[8]. In addition, for students who need family support in the educational environment, it is stated that parents' lack of digital literacy level to help their children transition to online learning or not having enough time to devote to home education also causes inequalities[10].

The COVID-19 virus has become a pandemic with its intercontinental spread and has exposed the whole world to political, social and economic devastation. In many countries, measures such as curfews, quarantines, self-isolation and social distancing, and the closure of places where there is a high probability of contact, schools and universities have come to the fore in order to break the rapid spread of the virus[11]. Education is undoubtedly one of the components most affected by the pandemic, and the pandemic has changed the way the whole world views and applies education[12,13].

Following the first COVID-19 case in Turkey, schools were suspended from March 16, 2020 until May 31, 2020, and open and distance online education was introduced for primary and secondary school students[12]. In addition, all higher education institutions suspended education in March 2020, the YÖK Courses Platform (Higher Education Institutions Courses) was opened to all students, and it was decided to continue the spring semester of the 2019-2020 academic year with open and distance education as of March 23, 2020[13].

Although the COVID-19 virus is thought to affect young people and children less in terms of health, these age groups have been one of the most affected segments of the pandemic due to this pause in their education. Students who have to receive education in these times of crisis are also challenged by the stress of the pandemic and the changing education process[14].

The COVID-19 pandemic has revealed the necessity of developing different ways of thinking and producing more modern and up-to-date solutions for the future of education globally in order to create an innovative educational environment[15]. Based on this awareness, our study aimed to investigate the impact of the COVID-19 pandemic and distance education on the education of 4th, 5th and 6th grade students of the Tekirdağ

Namık Kemal University Faculty of Medicine (FM), as well as the effects of the process on students.

MATERIAL AND METHODS

Our cross-sectional descriptive study was planned to be conducted on a total of 410 students (4th grade 175, 5th grade 117, 6th grade 118) studying in the 4th, 5th and 6th grades of Tekirdağ Namık Kemal University Faculty of Medicine in the 2021-2022 academic year. The study was initiated with the approval of the Tekirdağ Namık Kemal University University Faculty of Medicine Non-Interventional Clinical Research Ethics Committee (decision no: 2021.263.11.07, date: 30.11.2021).

The study included 321 volunteer students whose informed consents were obtained. As a data collection tool in this study, sociodemographic characteristics (53 questions) and Distance Education Perspective (UEBA) (26 questions) questionnaire prepared by the researchers were applied by face-to-face interview method. The positive items in the questionnaire, which consisted of 26 items in total and was prepared as a 5-point Likert scale, were scored as 5, 4, 3, 2, 1 from "strongly agree" to "strongly disagree", while the negative items were scored as 1, 2, 3, 4, 5 from "strongly agree" to "strongly disagree" in the opposite way. "Cronbach's alpha reliability coefficient" was used to determine the reliability of the questionnaire used to measure the characteristics.

Statistical Analysis

SPSS 23.0 for Windows program was used for statistical analysis. Normality assumptions of continuous variables were analyzed by the Kolmogorov-Smirnov test and homogeneity of variance was analyzed by the Levene's test. Mean and standard deviation were used for descriptive statistics of continuous variables and frequency (n) and percentage (%) values were used for categorical variables. In the comparison of two independent groups of variables, independent sample t-test was used if the data were normally distributed, and the Mann-Whitney U test was used if the data were not normally distributed. The Kruskal-Wallis-H test was used for independent three-group comparisons where the data were not normally distributed, and Anova was used when the data showed normal distribution. In subgroup comparisons, Tukey or Tamhane T2, post-hoc analyzes were used. Sperman's Rho correlation test was used for correlation analysis of continuous variables. In all analyses, $p<0.05$ was accepted as the significance level.

RESULTS

A total of 321 FM students participated in the study. Of all participants, 46.4% (n=149) were male and 53.6% (n=172) were female. Of the participating students, 26.5% (n=85) were 4th grade, 48.9% (n=157) were 5th grade and 24.6% (n=79) were 6th grade medical students (Table 1).

When the preferences of the students were analyzed, 283 students had chosen the medical school as their first choice in the university exam. When we looked at the answers given to the question "Would you choose FM if you had a second choice?", 37.1% (n=119) stated that they would choose FM again, 31.8% (n=102) stated that they would not choose FM and 31.2% (n=100) were undecided.

During the pandemic period, 69.8% (n=224) of the students were residing in the family house, 41.4% (n=133) in the

Table 1. Sociodemographic data of the participants

	n	%
Gender		
Male	149	46.4
Female	172	53.6
Mother's educational level		
Illiterate	13	4
Primary school	106	33.0
High school	71	22.5
Undergraduate	108	33.6
Graduate	22	6.9
Father's educational level		
Illiterate	1	0.3
Primary school	85	26.5
High school	64	20
Undergraduate	130	40.7
Graduate	40	12.5
Mother's occupation		
Officer	105	33.7
Worker	11	3.4
Self-employed	17	5.3
Retired	24	7.3
Housewife	155	50.3
Father's occupation		
Officer	143	44.5
Worker	31	9.7
Self-employed	79	24.6
Retired	53	16.5
Unemployed	2	0.6
The presence of a healthcare staff in the family		
No	95	29.5
Yes	223	70.5
Monthly income		
0-2500 TL	21	6.7
2501-5000 TL	57	18
5001-7500 TL	72	22.4
7501-10000 TL	63	19.6
10001 TL and above	97	30.2
Missing data are not included in the calculation		

student house, and 5.0% (n=16) in the dormitory. During this period, 27.7% (n=89) used the zoom video communication program and 69.5% (n=223) continued their distance education using the institutional education management and planning system (Keyps), the platform officially used by their university for distance education programs. 83.8% (n=269) of the participants attended distance education programs with their own computer, 26.8% (n=86) with their own phone, 4.0% (n=13) with their own tablet, and 6.5% (n=21) with someone else's computer. 2.5% (n=8) students had a monthly internet quota of less than 5 gb, 7.5% (n=24) had a monthly internet quota of 5-10 gb, 22.1% (n=71) had a monthly internet quota of 10-50 gb, and 67.9% (n=218) had a monthly internet quota of over 50 gb. As sources of online education, 78.5% (n=252) used online live broadcast, 83.2% (n=267) used PDF, word, powerpoint, 57.3% (n=184) used lecture recordings, 38.6% (n=124) used offline video recordings, 42.7% (n=137) used their own notes and 18.1% (n=58) used other lecturers' notes. In this survey, the number of students who participated in the study seems to be different since students could mark more than one option in the same question or not mark at all, but the study was conducted on 321 students.

When we examined the distribution of the answers to the question "What is your preferred education system option as of today?", 5.3% (n=17) of the students stated that they preferred online education system, 39.6% (n=127) preferred face-to-face education system, and 55.1% (n=177) preferred both online and face-to-face education system.

UEBA questionnaire consisted of 26 questions and the reliability analysis (Cronbach's Alpha) value for the questionnaire was 0.75. Accordingly, it is possible to say that the value found is quite reliable[16]. The average score of the whole questionnaire was 1.88±0.44. In the comparison of the mean UEBA questionnaire and sociodemographic characteristics, the mean score of female students was 1.81±0.41 and the mean score of male students was 1.95±0.45 (Table 2). It was determined that the mean of UEBA showed a statistically significant difference according to gender (p=0.005).

The mean UEBA score of male students was higher than that of female students. The mean UEBA score was 1.79±0.35 for children of illiterate mothers, 1.79±0.38 for children of primary school graduates, 2.06±0.48 for children of high school graduates, 1.86±0.44 for children of bachelor's degree graduates, and 1.88±0.45 for children of mothers with postgraduate education. It was observed that the mean UEBA score showed a statistically significant difference according to the educational level of the students' mothers (p=0.001). The mean UEBA score of the children of mothers who were primary school graduates and undergraduate graduates was statistically significantly lower than those who were high school graduates (Table 2).

Table 2. Comparison of average distance education perspective questionnaire value with sociodemographic characteristics

	Perspective on distance education		
	M ± SD	t or F	p-value
Gender			
Male	1.95±0.45	2.80	**0.005**[a]
Female	1.81±0.41		
Mother's educational level			
Illiterate	1.79±0.35	4.68	**0.001**[b]
Primary school	1.79±0.38		
High school	2.06±0.48		
Undergraduate	1.86±0.44		
Graduate	1.88±0.45		
Father's educational level			
Illiterate	2.46±0	1.34	0.256[b]
Primary school	1.80±0.41		
High school	1.91±0.45		
Undergraduate	1.89±0.44		
Graduate	1.92±0.45		
Mother's occupation			
Officer	1.91±0.41	0.70	0.593[b]
Worker	1.87±0.53		
Self-employed	1.88±0.38		
Retired	2.01±0.52		
Housewife	1.86±0.44		
Father's occupation			
Officer	1.90±0.45	0.80	0.529[b]
Worker	1.92±0.33		
Self-employed	1.90±0.45		
Retired	1.86±0.42		
Unemployed	1.38±0.22		
The presence of a healthcare staff in the family			
No	1.87±0.42	0.03	0.856[a]
Yes	1.88±0.48		
Monthly income			
0-2500 TL	1.75±0.36	0.676	0.609[b]
2501-5000 TL	1.85±0.50		
5001-7500 TL	1.92±0.43		
7501-10000 TL	1.90±0.39		
10001 TL and over	1.88±0.46		
		r	p
Age		0.047	0.401[c]
Number of siblings		-0.123	**0,030**[c]

[a]t-test, [b]ANOVA, [c]Spearman's rho correlation test, r: Correlation coefficient, M ± SD: Mean ± standard deviation

When the UEBA questionnaire scores were compared with the medical school grades and preferences of the students, the mean UEBA score of the 4th grade students was 1.83±0.45, of the 5th grade students was 1.96±0.41, and of the 6th grade students was 1.80±0.45. The mean UEBA score of 5th grade medical students was statistically significantly higher than the other grades (p=0.007).

In the comparison of the average UEBA questionnaire value with the content of distance education during the pandemic period, it was observed that there was no statistically significant relationship between the UEBA score and the residence status and device status of the students during the pandemic period. The average of the instructors who used online live broadcasting as an online education source was statistically significantly higher than those who did not (p=0.003) (Table 3). The mean UEBA score of the students who used the Zoom program, which is a video conferencing platform in distance education, was found to be 1.79±0.46, and the mean UEBA score of the students who used the institutional education management and planning system (Keyps) program, which is the platform officially used by the university for distance education program, was found to be 1.91±0.43. There was a statistically significant effect of the average UEBA score according to the programs used (p=0.038) (Table 3). Accordingly, it can be said that the UEBA averages of those who use Keyps program in distance education are higher than those who use Zoom program.

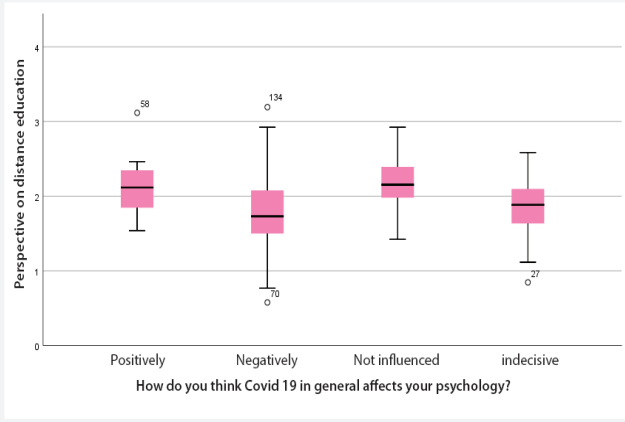

Figure 1. Distribution of perspective on distance education according to the psychological effects of COVİD-19 pandemic

Table 3. Comparison of the average distance education perspective survey and the content of distance education during the pandemic period

	Perspective on distance education		
	M ± SD	t or F	p-value
Residence status during the period			
Family house	1.89±0.42	-0.573	0.567
Student house	1.86±0.44	0.698	0.485
Dormitory	1.79±0.42	0.865	0.388
Program used in distance education			
Zoom	1.79±0.46	4.33	**0.038**[a]
Keyps	1.91±0.43		
Device status used in distance education			
Owned computer	1.87±0.43	1.16	0.249
Owned telephone	1.87±0.43	0.167	0.867
Owned tablet	1.88±0.44	1.46	0.146
Other's computer	1.83±0.52	0.499	0.618
Online education sources			
Online live performance	1.92±0.43	-2.98	**0.003**
PDF, Word, PowerPoint	1.88±0.44	0.01	0.991
Course records	1.90±0.46	-1.26	0.209
Offline video records	1.91±0.43	-1.01	0.314
Owned notes	1.92±0.45	-1.35	0.179
Notes of an instructor	1.88±0.40	-0.02	0.982

[a]t-test, M ± SD: Mean ± standard deviation

The students' response to the question "What were the effects of the COVID-19 pandemic on your psychology" is shown in Figure 1. In the comparison of the average UEBA value and the psychological effects of the COVID-19 pandemic; the average UEBA score of those who were affected by the COVID-19 pandemic on the psychology of the students in a good way was 2.11±0.38, those who were affected in a bad way were 1.80±0.45, those who were not affected were 2.15±0.35, and those who were undecided were 1.89±0.35. A significant difference was observed between the mean UEBA and the psychological effects of the COVID-19 pandemic on students (p<0.001). It was found that the mean of those whose psychology was affected in a good way was higher than those whose psychology was affected in a bad way; the mean of those whose psychology was not affected was higher than those whose psychology was affected in a bad way; and the mean of those whose psychology was not affected was higher than those who were undecided (Figure 1).

In the comparison of the average UEBA value with the preferred education systems, the average UEBA score of the students who would choose the online education system if they had the chance to choose it from now on was calculated as 2.23±0.60 points, the average of those who preferred the face-to-face education system was calculated as 1.64±0.39 points, and the average of those who chose the online and face-to-face education system was calculated as 2.02±0.36 points. There was a statistically significant difference between the mean UEBA score and the education system options preferred by the students as of today (p<0.001). It was determined that the mean of those who chose online education system was statistically significantly higher than those who chose face-to-face education system, and those who chose online and face-to-face education system were statistically significantly higher than those who chose face-to-face education system (Figure 2).

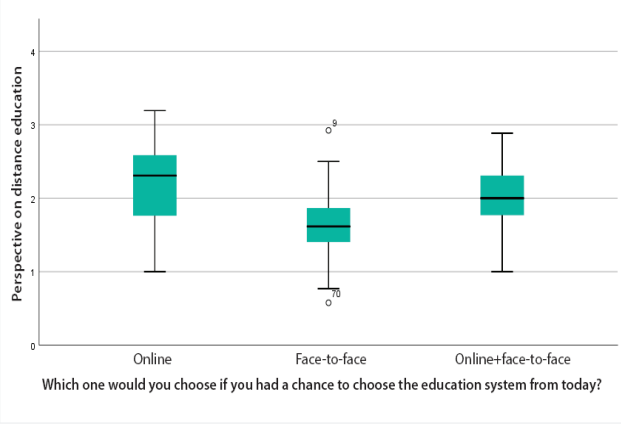

Figure 2. Distribution of perspective on distance education according to education system preference

When we examined the sub-factors of the UEBA questionnaire, 55.5% (n=81) of male students strongly disagreed, 24% (n=35) disagreed, 7.5% (n=11) strongly agreed with the statement "I think it is sufficient to give practice-based courses at a distance". For the same proposition, 54.1% (n=92) of the women strongly disagreed, 30% (n=51) disagreed, and no one strongly agreed. It was seen that the answers given to the statement "I think it is sufficient to give practice-based courses at a distance" showed a statistically significant difference according to gender (p=0.003).

In addition, in the comparisons of the statement "I would support the provision of university education completely online after the pandemic" and the grade level, 49 people who answered "strongly disagree" were in the 4th grade, 58 people were in the 5th grade, and 28 people were in the 6th grade; 22 people who answered "disagree" were in the 4th grade, 51 people were in the 5th grade, and 25 people were in the 6th grade.

CONCLUSION

Decisions made in line with global measures have led to new regulations in education systems, leading many educational institutions to adopt the distance education system and bringing about a major change in the academic lives of students. This change has made university students one of the groups most affected by the pandemic and put them in a psychosocially challenging period as well as physical risks[17]. In our study, we tried to determine the opinions of students who took distance education courses during the pandemic period on distance education and the impact of the pandemic.

In our study, a great majority of the students stated that they ranked the medical faculty first in their university preferences. In 1999, in another study conducted on Cerrahpaşa Medical Faculty students, this rate was 62.5%[18]. Considering the difference between the dates of the studies, it can be interpreted that medicine has become a more attractive profession in recent years.

An important detail that stood out in our study was that 31.8% of the students regretted their choice of medical school in response to the question "Would you choose medical school again if given a second choice?". Similarly, in other studies, the rates of regret were in parallel with our study[18,19]. The reasons for this may be listed as realizing that the profession of medicine is not suitable for them, their doubts about the future of medicine, and the concern that they will not be able to get the material and moral reward for their efforts during the challenging education process[19].

From this point of view, it can be concluded that students prefer MF with hope and enthusiasm, but a considerable number of

them regret their choice of medical school for reasons such as the problems they encounter during the education process and their doubts about the future of medicine.

When we examine the comparison of material satisfaction in distance education, it was observed that there was no significant relationship between the device status of the students used in distance education and whether it belonged to them or not and their attitudes towards distance education during the pandemic period. In another study conducted during the COVID-19 pandemic process, which is compatible with our study, no relationship was found between the technological device owned and attitudes[20].

However, there are other studies that found that students who had their own computers, tablets or smartphones had more positive attitudes towards distance education, which is inconsistent with our study[21]. An important point in terms of ensuring adequate participation in distance education is having sufficient internet quota to follow the lessons. A 20-minute video made instead of a 45-minute lecture in face-to-face education requires 500-600 mb internet quota if watched in high quality.

A 60-minute-high quality video requires an average quota of 1.5 gb. In other words, students need an average of 5 gb of internet per month in order to participate in the lessons[22]. 97.5% of the students who participated in our study stated that their internet quota was 5 gb or more, and according to this result, the internet quota of the students does not pose a problem in terms of participation in the lessons at a high rate.

According to our study results, having a higher level of internet quota than required to participate in trainings has a positive effect on people's psychology. On the other hand, we think that an insufficient internet quota will greatly affect people's satisfaction with distance education and their psychology through online-based activities.

While taking online courses, students face many technical problems in the university's distance education system, such as internet disconnections, audio and video problems, late or no uploading of the courses to the system[23]. In our study, half of the participants stated that they experienced technical problems in online education and that there was no unit they could reach for the technical problems they encountered. Considering that an effective technical service that students can access and get feedback to solve the problems they experience will affect their satisfaction with distance education, it is important to establish these units and to inform students about the existence of these units.

One of the most important criteria affecting the quality of distance education is the quantity and quality of teaching and learning resources and materials[24]. Adequate material support closely affects the effectiveness and satisfaction of distance education for both trainees and instructors[25]. In our study, the average of instructors who used live performance as an online education resource was statistically significantly higher than those who did not. In another similar study, it was observed that students preferred to receive education on online live performance[26].

Considering the students' perspectives on distance education; according to the findings of a study examining the attitudes of undergraduate and graduate students towards distance education, it was understood that students see distance education as a second option. This result is consistent with our study in which attitudes towards distance education during the pandemic period were found to be close to undecided, and we believe that social isolation has an effect on this situation[27].

In our study, it was determined that the mean UEBA score of the students showed a significant difference according to gender and the mean UEBA score of male students was higher than that of female students. In many studies in the literature, it has been found that distance education attitudes are higher in favor of males than females[27]. This may be because, according to a generally accepted view, male students tend to use technology more and more competently than female students. However, when the literature was examined, a study indicating that attitudes towards distance education did not differ according to gender was also found[28].

In our study, a significant difference was observed in the mean UEBA score according to the education level of the students' mothers (p=0.001). In another study compatible with our study, parents' distance education experiences were evaluated during the pandemic, and it was shown that family support and parental education level supported learning in students who had the opportunity to spend more time at home and also increased student motivation[29].

In addition, in line with the answers given, it was observed that the UEBA score decreased as the number of siblings increased. This relationship shows that students who resided in the family home with a rate of 69.8% during the pandemic period had problems accessing and focusing on online courses as the number of people living at home increased, which decreased their educational satisfaction.

In the comparison of the UEBA score by grades, the average UEBA score of 5th grade medical students was significantly higher than the other grades. Although there are studies showing that the grade level does not affect the attitude towards distance education, many different studies show that grade levels show differences in attitudes towards e-learning[30].

We think that it would be beneficial to organize the number and program of distance education courses according to the

grade level, especially in blended education applications. In our study, UEBA satisfaction of students receiving distance education during the pandemic process varies according to the education platform used. We think that educators and administrators comparing these differences and choosing the most efficient platform will increase student satisfaction[26,31].

When students were asked about the education system they would like to choose from now on, about half of the participants stated that they preferred a system in which online and face-to-face education were carried out together. In line with these opinions, it can be concluded that distance education can be an important alternative to traditional formal education and that blended education planned not only in emergency and compulsory situations but also in normal times will be satisfactory at both student and instructor levels.

In our study, a statistically significant difference was found between the average UEBA score of the participants who interpreted distance education in line with these factors and the education system options they preferred as of today. It was found that the UEBA average of those who chose online education or online + face-to-face system was statistically significantly higher than those who chose face-to-face education system.

The higher the level of satisfaction with distance education, the more favorable people are towards the inclusion of distance education in the education system.

The COVID-19 pandemic increases the level of stress in university students and decreases their social, physical and psychological well-being due to factors such as delays and uncertainties in educational activities, global effects of the pandemic, and difficulties in getting used to the process[17]. The two questions that were significantly associated in our study were how the pandemic affected their psychology and their average UEBA scores. Students who thought that the pandemic affected their psychology badly were less satisfied with distance education in our study.

Study Limitations

Our study has some limitations. The research conducted within the scope of the study is limited to 4th, 5th and 6th grade students of Tekirdağ Namık Kemal University Faculty of Medicine, and future studies can be conducted with all grades of FM and more general results can be obtained by comparing the results obtained with this study.

As a result, many factors such as gender, home environment, internet quota, technical problems, and the online platform used in education affect the satisfaction of students affected by extraordinary situations such as pandemics. We think that our study will contribute to the research on distance education satisfaction among FM students during the COVID-19 pandemic in Turkey and will also contribute to the research on how to plan distance education.

Ethics

Ethics Committee Approval: The study was initiated with the approval of the Tekirdağ Namık Kemal University University Faculty of Medicine Non-Interventional Clinical Research Ethics Committee (decision no: 2021.263.11.07, date: 30.11.2021).

Informed Consent: The study included 321 volunteer students whose informed consents were obtained.

Footnotes

Authorship Contributions

Concept: M.G., Design: M.G., Data Collection or Processing: I.P., C.S.C., B.G.R., A.K.M., N.K.D., V.P.J.S., Analysis or Interpretation: M.G., K.M., I.P., V.P.J.S., Literature Search: K.M., J.J., C.S.C., Writing: M.G., K.M., J.J., C.S.C.

Conflict of Interest: One author of this article, (Birol TOPÇU) is a member of the Editorial Board of the Namık Kemal Medical Journal. However, she did not take part in any stage of the editorial decision of the manuscript. The editors who evaluated this manuscript are from different institutions. The other authors declared no conflict of interest.

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