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Evaluation of the Distance Education Process of the Students Studying at the Faculty of Health Sciences

Sağlık Bilimleri Fakültesinde Öğrenim Gören Öğrencilerin Uzaktan Eğitim Süreçlerinin Değerlendirilmesi

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EVALUATION OF THE DISTANCE EDUCATION PROCESS OF THE STUDENTS STUDYING AT THE FACULTY OF HEALTH SCIENCES

ABSTRACT

Aim: This research was carried out to describe the views of the students studying at the Faculty of Health Sciences at a university university located in the Central Black Sea Region of Turkey regarding the distance education process.

Method: This descriptive study was conducted at the Faculty of Health Sciences of a university between January 15- February 15, 2021. The study sample consisted of 868 undergraduate students. The data were collected online using a questionnaire prepared by the researchers in line with the literature, which includes evaluating students' sociodemographic characteristics and distance education processes. The data obtained were evaluated by the SPSS 20 package program.

Results: The average age of the students was 20.6 ±2.32, participation rate according to the departments: Midwifery 20.4%, Nutrition and Dietetics 18.9%, Nursing 17.2%, Health Management 14.2%, Social Work 12.7%, Speech and Language Therapy 9.0%, Orthotics and Prosthesis 5.0%, Audiology is 2.8%. It was concluded that 57.9% of the students were connected to distance education by mobile phone, 77.2% of them had problems with the distance education process, and 54.4% of them had no issues in the exams held in distance education. It has been observed that 49.9% of the students adapt to the distance education process quickly, and 72.8% of them regularly attend their classes. 67.7% of the students believe distance education is not so effective as effective as formal education, and 59.7% think it reduces teamwork by directing it to individual work. 53% of the students stated that distance education could be an alternative solution to formal education, 20.3% said that the inability to make laboratory and clinical applications in the distance education process negatively affects their skill development. They have professional anxiety in this regard. Students declared the problems experienced in of distance education 59% as technical infrastructure and 23% as inequality of opportunity.

Conclusion and Suggestions: It is thought that distance education is not so adequate and effective learning model as formal education, but nowadays it has become indispensability of education and and can be an alternative solution to formal education.

Keywords: *Distance Education; Health Sciences; Student; Undergraduate.*

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SAĞLIK BİLİMLERİ FAKÜLTESİNDE ÖĞRENİM GÖREN ÖĞRENCİLERİN UZAKTAN EĞİTİM SÜREÇLERİNİN DEĞERLENDİRİLMESİ

ÖZ:

A**maç:** Bu araştırma, Türkiye'nin Orta Karadeniz Bölgesi'nde bulunan bir üniversitenin Sağlık Bilimleri Fakültesi öğrencilerinin uzaktan eğitim süreci ile ilgili görüşlerinin betimlenmesi amacıyla yapılmıştır.

Yöntem: Tanımlayıcı tipte olan bu araştırma, bir üniversitenin Sağlık Bilimleri Fakültesi öğrencileri ile 15 Ocak- 15 Şubat 2021 tarihleri arasında yapılmıştır. Çalışma örneklemini 868 lisans öğrencisi oluşturmuştur. Veriler literatür doğrultusunda araştırmacılar tarafından hazırlanan, öğrencilerin sosyodemografik özellikleri ve uzaktan eğitim süreçlerinin değerlendirmesini içeren anket formu kullanılarak, çevrimiçi ortamda toplanmıştır. Elde edilen veriler SPSS 20 paket programı kullanılarak değerlendirilmiştir.

Bulgular: Öğrencilerin yaş ortalaması 20.6±2.32, bölümlere göre çalışmaya katılım oranı; Ebelik %20.4, Beslenme ve Diyetetik %18.9, Hemşirelik %17.2, Sağlık Yönetimi %14.2, Sosyal Hizmet %12.7, Dil ve Konuşma Terapisi %9.0, Ortez ve Protez %5.0, Odyoloji %2.8'dir.Öğrencilerin 57.9'unun uzaktan eğitime cep telefonu ile bağlandığı, %66.4'ünün günde en fazla ders katılımı için zaman ayırdığı, %77.2'sinin uzaktan eğitim sürecine yönelik sorun yaşadığı, %54.4'ünün uzaktan eğitimde yapılan sınavlarda sorun yaşamadığı saptanmıştır. Öğrencilerin %49.9'unun uzaktan eğitim sürecine kısa sürede uyum, %72.8'inin ise derslerine düzenli katılım sağladığı görülmüştür. Öğrencilerin %67.7'si uzaktan eğitimin örgün eğitim kadar etkili olmadığını, %59.7'si bireysel çalışmaya yönlendirerek takım çalışmasını azalttığını düşünmektedir. Öğrencilerin %53'ü uzaktan eğitimin örgün eğitime alternatif bir çözüm olabileceğini, %20.3'ü uzaktan eğitim sürecinde laboratuvar ve klinik uygulamaların yapılamamasının beceri gelişimini olumsuz etkilediğini ve bu konuda mesleki kaygı duyduklarını ifade etmişlerdir. Öğrencilerin uzaktan eğitimde yaşanan sorunları %59'u teknik alt yapı, %23'ü fırsat eşitsizliği olarak belirtmişlerdir.

Sonuç ve Öneriler: Uzaktan eğitimin örgün eğitim kadar yeterli ve etkili bir öğrenme modeli olmadığı ancak günümüzde eğitimin vazgeçilmezi haline geldiği ve örgün eğitime alternatif bir çözüm olabileceği düşünülmektedir.

Anahtar Kelimeler: *Uzaktan Eğitim; Sağlık Bilimleri; Lisans; Öğrenci.*

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INTRODUCTION

After the coronavirus (SARS-CoV-2) case, which was first detected in Wuhan, China, in the last month of 2019, cases began to spread rapidly worldwide, and a pandemic was declared by the World Health Organization on March 11, 2020 (WHO, 2021). The pandemic process has had adverse effects in several areas, particularly in the health sector. Education is one of these areas. Since it is thought that face-to-face education will negatively affect the current epidemic process, distance education activities in the world have been accelerated.

Distance education is defined as the system where education is carried out owing to technology, without the students and teachers being in the same environment (İşman, 2011). Distance education started with the letter education model in the 1700s and then began to be given in training over the Internet with technological developments (Yamamoto & Altun, 2020). It started in the middle of the 19th century in England, America, Germany, and France (Hall, 2006). In this system, online classroom and library environments are created where high-capacity data is transported and shared (Kırali & Alcı, 2016).

Before the pandemic, online education applications were carried out in many universities in the world and in our country; with the pandemic, they were required to continue their higher education through online systems. (Lau et al., 2020). In Italy, it is known that the University of Bologna has switched to online learning, in the USA, universities such as Harvard, Ohio State, Duke, Columbia, etc. have switched to online education, and universities such as Stanford and Caltech have been providing online education for many years (Bothwell & McKie, 2020; Caltech, 2021;Harvard, 2021; Stanford, 2021).

Today, distance education is applied both synchronous and asynchronous as an education model that aims to present information using structured and internet-based technology, where students can obtain information independently of the instructor (Bluejames and Gurdner, 1995). It is stated that this situation provides flexibility in accessing education and increases accessibility (Al-Arimi, 2014). While synchronous education is preferred more when peer interactions are essential, asynchronous education is used in cooperative education models that are thought to be managed by experienced faculty members (Iyer et al., 2020). The model in which both forms of education are practiced together is expressed with hybrid and blended learning concepts. After the declaration of the pandemic, travel restrictions were imposed in many countries of the world to prevent the epidemic, curfews were declared in places where the number of cases was high (Sahu, 2020), and educational institutions were closed to reduce the number of cases, as was done in the previous epidemics (Kawano & Kakehashi, 2015; Sahu, 2020). Therefore, a rapid transition was made to distance education so that students who were not able

to reach the schools formally could benefit from their education rights. After the first coronavirus case in our country was seen on March 11, 2020, the Higher Education Institution (YÖK) announced that education was suspended for three weeks on March 16, 2020 (Higher Education Institution [YÖK], 2020). Afterwards, the Digital Transformation Commission in Higher Education was established by YÖK in order not to interrupt education due to the uncertainty of the epidemic period, and a road map was prepared. A step was taken to the distance education process (YÖK, 2020). The negative effects of the sudden transition from face-to-face education to distance education are also seen in the researches. The transformation of face-to-face lessons into online lessons and adaptation problems, the fact that web-based assessment and evaluation are not yet sufficiently developed, accommodation and travel problems of international students, mental problems arising from social isolation (Sahu, 2020), lack of opportunity and structural problems can be counted among the negative effects (Kürtüncü & Kurt, 2020). The advantages of the distance education model are the increase in students' access to education; lack of space, time and capacity constraints, contributing to the acceleration of institutional transformations (Volery & Lord, 2000), providing equal opportunities, standardizing education programs, reducing costs, supporting lifelong learning (Kaya, 2019). In many studies, it is predicted that distance education/web-based education will continue even if the epidemic is over, and the digital transformation will form the future education system (Yamamoto & Altun, 2020). For this reason, taking the opinions of the students, who are in the leading role of the distance education process, about this process, determining their needs and shedding light on the developments in this context; It is of great importance in order to benefit from the contributions of the education system and distance education model to be established in the future. This study aimed to determine the views of the students studying at the Faculty of Health Sciences of at a university located in the Central Black Sea Region of Turkey about the distance education process.

METHOD

Research Model: This research was designed with a descriptive model to reveal the views of the students studying at the Faculty of Health Sciences of at a university located in the Central Black Sea Region of Turkey about the distance education process.

Population and Sample of the Research: The research population consists of 2268 students studying at the Faculty of Health Sciences of a university. When the confidence interval was accepted as 0.99 and the margin of error as 0.05, the minimum sample size was determined as 515. The research was completed with 868 undergraduate students who participated in the distance education process for at least one academic year.

Data Collection Tools: In this study, a questionnaire form created by the re-

searchers was applied as a data collection tool. The questionnaire form consists of two parts. In the first part, demographic questions were included. In this section, some items question the students' gender, marital status, age, class, residence, economic situation, and whether they have problems in distance education. In the second part, 5-point Likert-type items are containing the evaluation of distance education processes. Data collection tools are structured online (using google forms).

Data Collection and Evaluation: Data collection tools structured online were applied to the students between January 15 and February 15, 2021, using the link on the online education platform (google classroom). In the first part of the data collection tool, the explanations about the study were made. After the written consent of the students for participation in the study was obtained, the questions about the evaluation of demographic and distance education processes were asked. The students answered within 5-10 minutes. In the data analysis, descriptive tests (frequency, percentage, and mean) were used by using the IBM SPSS 20 package program.

Ethical Aspect of the Research: Ethics committee (ethics committee approval no: 2020/908) and institutional permission were obtained for the study. In the first part of the data collection tool, explanations for the study were made, and written consent was obtained from the students to participate.

RESULTS

The frequency and percentage distributions of the sociodemographic data of the students and their participation in distance education are shown in Table 1.

Table 1. Sociodemographic characteristics of students and their participation in distance education

Variables	n	%	Variables	n	%
Branch /Number of Students Studying at the Faculty (N)			**Economic status**		
Nutrition and Dietetics /479	164	18.9	Less income compared to expenses	191	22.0
Language and Speech Therapy /119	78	9.0	Equal income and expenses	563	64.9
Midwifery /374	177	20.4	More income compared to expenses	114	13.1
Nursing / 558	149	17.2	**Devices used to follow distance education**		
Orthotics and Prosthetics /54	43	5.0	Tablet	21	2.4
Healthcare Management/ 325	123	14.2	Mobile phone	503	57.9
Social Service/314	110	12.7	Computer	344	39.6
Audiology/ 45	24	2.8			
Total/ 2.268	**868**	100	**On which application does he/she spends most of his/her time on the screen in a day**		

Age (year)	Mean±SS		Attendance to lesson	576	66.4
Female	20.46±2.2		For lesson preparation	52	6.0
Male	21.31±3.05		For Social Media	94	10.8
Grade			To research a topic	25	2.9
1st Grade	320	36.9	To watch TV	7	0.8
2nd Grade	181	20.9	To watch videos extracurricular	30	3.5
3rd Grade	175	20.2	Other	84	9.7
4th Grade	192	22.1			
Sex			**Problems regarding the distance education process**		
Female	737	84.9	Yes	670	77.2
Male	131	15.1	No	198	22.8
Marital Status					
Single	851	98.0	**Availability to benefit from the distance education platform of the university**		
Married	17	2.0	Yes	368	42.4
Nationality			No	500	57.6
Turkey	802	92.4			
Foreign Nationality	66	7.6	**Problems in distance education exams**		
Place of Residence			I did not experience any problems.	472	54.4
City Center	402	46.3	I had problems with midterm exams	168	19.4
District center	340	39.2	I had a problem with the finals	220	25.3
Village	126	14.5	I had a problem with the make-up exams	8	0.9
Number of siblings receiving distance education at home other than him/herself					
No	248	28.6	**Application for a make-up exam for the visa exam for any reason**		
1	314	36.2	Yes	52	6.0
2	211	24.3	No	816	94.0
3 and more	95	10.9			

Table 2 contains information on the questionnaire items applied to the students to get their opinions regarding distance education.

Table 2. Frequency and percentages of survey items on students' views on distance education

	Disagree		Neutral		Agree	
	n	%	n	%	n	%
I know the process of connecting to the distance education system and watching my lessons.	14	3.3	63	7.3	776	89.4
I adapted to the distance education lessons in a short time.	182	21.0	253	29.1	433	49.9
I attended the distance education classes regularly.	92	10.6	144	16.6	632	72.8
If I have a problem with distance education, I can reach the person responsible for distance education.	199	22.9	308	35.5	361	41.6
I follow the portal about distance education closely.	23	2.6	63	7.3	782	90.1
I use the portal about distance education as a study tool.	47	5.4	89	10.3	732	84.3
Thanks to the distance education system, it is beneficial for me to watch the lessons repeatedly.	54	6.2	108	12.4	706	81.3
I received an education with distance education lessons.	173	19.9	248	28.6	447	51.5
I find the exams on the distance education useful.	284	32.7	253	29.1	331	38.1
I find homework, projects, etc., studies done with distance education useful.	211	24.3	212	24.4	445	51.3
I communicated effectively with the lecturer in the lessons conducted through distance education.	149	17.2	234	27.0	485	55.9

Taking lessons with the distance education system is an adequate and effective learning model.	441	50.8	222	25.6	205	23.6
I can use my time more efficiently thanks to the distance education system.	360	41.5	187	21.5	321	37.0
The technical infrastructure of the distance education system is sufficient.	268	30.9	263	30.3	337	38.8
I have technical problems from time to time in connecting to remote education.	498	57.4	178	20.5	192	22.1
I can quickly access course contents thanks to the distance education system.	67	7.7	175	20.2	626	72.1
When the distance education process started, my current opportunities were sufficient.	256	29.5	204	23.5	408	47.0
Distance education is an alternative solution.	163	18.8	245	28.2	460	53.0
I can express my thoughts freely in distance education.	226	26.0	249	28.7	393	45.3
Distance training is as effective as face-to-face training.	588	67.7	137	15.8	143	16.5
I can get enough feedback from my professors in distance education.	168	19.4	245	28.2	455	52.4
I find distance education economically more effective.	240	27.6	195	22.5	433	49.9
Distance education will be inevitable in the future.	311	35.8	220	25.3	337	38.8
My family relations were not affected negatively during the distance education process.	269	31.0	180	20.7	419	48.3
Distance education reduces teamwork by directing individual work.	518	59.7	202	23.3	148	17.1
Distance education encourages research.	239	27.5	223	25.7	406	46.8

When Table 2 is examined, it is seen that 49.9% of the students adapt to the distance education process in a short time, and 72.8% of them regularly attend their classes. It was found out that 41.6% of the students who had problems in the distance education process could easily reach the people responsible for the problem's solution. 81.3% of the students who participated in the study stated that it was beneficial for them to watch the recorded lessons again, 72.1% said that they could quickly access the course contents, and 51.5% indicated that they learned in their classes this system. It was reported that 38.1% of the students found the exams, and 51.3% of the students found the homework, projects, etc., studies helpful in the questions about the exam, homework, and project work done during the distance education process. Furthermore, more than half of the students stated that they communicated effectively with the instructors (55.9%) during the distance education process, that they could receive sufficient feedback from the instructors (52.4%) and freely express their thoughts. However, most students disagree that distance education is as effective as formal education (67.7%) and think distance education reduces teamwork (59.7%) by directing students to individual work. Moreover, half of the students (50.8%) do not believe that taking courses through distance education is an adequate and effective learning model. In addition to these views, more than half of the students (53%) stated that distance education could be an alternative solution to formal education.

In Table 3 and Table 4, there are common determined by examining the answers given by the students to questions about the distance education process.

Table 3. Students' views on the positive and negative aspects of the distance education system

What do you think are the positive aspects of the distance education system?	**n**	**%**	**What do you think are the negative aspects of the distance education system?**	**n**	**%**
Category: Description			**Category:** Description		
Yield increases: Regular attendance to classes / Re-watching the course recordings / Ensuring a research environment with assigned homework / Being in contact with the lecturer effortlessly / Easy access to course materials / Reducing stress and increasing success compared to the school environment	317	36.5	**Efficiency decrease:** Focus and attention problems / increased responsibilities related to the home / uneasiness in the home environment, psychological violence / Inability to use the working time efficiently, etc. self-discipline-self-control problems / Insufficient technological knowledge of the lecturers and/or the student / Weakening of social relations, feeling lonely	454	52.6
Achieve Saving: Financial and/or time savings /No transportation problem	171	19	**Lack of practice:** Lack of practice courses and internships, and increased anxiety about professional skills and future professional life.	175	20.3
With family / Personal time increase: Increase in the time allotted to oneself/ Making more use of personal development opportunities (language course, etc.)/ Working students do not have problems with leave and time to family.	74	8.5	**Online exam:** Situations such as cheating cause injustice in grading / Insufficient exam time / Exams being more difficult	76	8.8
Practicality: Providing training in a more comfortable environment / practical way	71	8.2	**Technical problems:** Internet and power outages /Systemic problems such as sound and/or video interruption during the lesson	184	21.3
Protection of health and continuity of education Protecting in terms of health and not taking risks / Ensure education-training activities continue in compulsory situations such as pandemic	80	9.2	**Health problems:** Increase in musculoskeletal pain, headaches and eye diseases due to increased screen time / Psychological problems due to pandemic, home environment and workload	118	13.7
Technological knowledge/skill increase: Increase in the skills of using these tools and equipment as it makes the use of technological tools obligatory / Getting acquainted with technological learning techniques	13	1.5	**Inequality of Opportunity:** Having to follow the classes only on the phone / Decrease in internet speed and disconnection due to the presence of siblings or siblings who take online lessons at home /Not being able to follow all the courses due to the limited internet service they benefit from	117	13.6
No: There is no positive aspect / I do not know.	183	21.2	**No:** There is no downside.	27	3.1
Other: Ability to pass courses without difficulty and with higher grades	9	1	**Other:** Finding very/many aspects distressing (Reasons not specified)	19	2.2

The student's views on the positive and negative aspects of distance education are presented in Table 3. When the answers of the students regarding the positive aspects of the distance education system are categorized, the increase in efficiency and success from the courses (36.5%) is in the first place due to the ability to watch the course records again, to access the course materials efficiently, and to establish effective communication with the instructor. The students who see the distance education process as an economic model that eliminates transportation problems

19% of all students. On the other hand, 8.5% of the students reported that they could spare more time for themselves and their families and contributed to their academic development by using personal development opportunities. In addition, the continuation of educational activities more comfortably and practically (9.2%) in healthy environments without taking risks in mandatory situations such as pandemics are among the other positive aspects conveyed by the students; on the other hand, 21.2% of the students stated no positive aspect of distance education. When the answers about the negative aspects are analyzed, the decrease in course efficiency (52.5%) is in the first rate. In the second rate, technical problems such as system problems experienced by students, Internet and power cuts (21.3%) occur. 20.3% of the students stated that the inability to carry out laboratory and clinical applications during the distance education process negatively affects their skill development. They have professional anxiety in this regard. 13.7% of the students stated that they had health problems due to the increase in screen time, and 13.6% indicated that they had issues in the distance education model due to inequality of opportunity. 8.8% reported that the online exam system caused injustice in grading. The exam time was not enough due to systemic problems. The exams were more difficult than in formal education. 3.1% of the students stated that there is no negative aspect of distance education.

Table 4. Problems experienced by students in the distance education process and solution suggestions

What are the problem/s you experience during the distance education process?	**n**	**%**
Technical Infrastructure: Internet and power outages / Problems with connection speed	521	59
Inequality of Opportunity: Not having the necessary technological equipment (computer, camera, etc.) / Having to follow the lessons on the phone / The home environment being not suitable for the population and physical conditions of the house / Limited Internet packages	204	23.5
Efficiency decrease: Difficulty in focusing on lessons, loss of motivation / Long course periods / Too much homework / Homework instead of practical lessons /Home responsibilities	168	19.4
Health problems: Problems related to psychological and physical health / Physical pain caused by being on the screen for a long time, problems with vision / Being at home for a long time, psychological problems due to lack of peer interaction / Having Covid	58	6.7
Course: Communication problems with the responsible instructor of the course	32	3.7
Online exam: Problems experienced due to technical reasons / Failure to meet the demands for camera and sound due to hardware deficiencies / Failure to deliver the exam, not appear in the system or arriving late to the student / Keeping the exam times short	34	3.9
Other: Distance education being a problem in general / Being first class / Foreign national / Conflict during class hours / Conflict with working hours	9	1
No problem: I did not experience any problems.	136	15.7
What are your suggestions for solutions to the problems experienced?		
Formal education: Opening schools / transition to face-to-face education	189	21.8
Infrastructure / Hardware: Solution for internet-power outages / Solution for students with deficiencies such as pc, tablet etc.	120	13.8

Courses: Conducting the lessons more actively and in a way to ensure student participation / Applying different teaching techniques / Organizing the course schedule and course hours / Using asynchronous system / No attendance requirement /Compensating mainly applied lessons	88	10.1
Online exam: No camera obligation in the exams / Planning the exam times by considering possible technical problems / Informing about the exams before	75	8.6
Communication/Understanding: Being student-oriented / Providing an insightful approach to problems such as technical, familial, etc.	66	7.6
Education in the hybrid model or transition to formal education in a controlled manner: Conducting theoretical courses online and applied courses face-to-face with the system / Senior students starting education in the face-to-face system with priority	48	5.5
Online systems: Changing or improving the existing system / Providing technical support / Providing support by phone or e-mail regarding the problems / Providing information on the necessary issues	31	3.6
Student: Solutions produced by the students themselves (Buying a computer / Using mobile data / Going to an acquaintance's house with Internet or electricity	16	1.8
Other: Providing an equal environment / Systemic problem solving / Questioning of educational competence / Opening a regional study center / Internet support provided	24	2.8
No recommendations: Not giving any answer to the relevant question / Thinking that there is no solution for the problems / Stating that there is no suggestion	239	27.5
No problem: No recommendation given since there is no problem	31	3.6

The data regarding the problems experienced by the students in the distance education process and the solution suggestions for the issues are presented in Table 4. While 15.7% of the students stated that they did not experience any problems, the most common obstacles in this process were technical infrastructure problems such as internet and power cuts (59%), device used, physical etc. reasons for inequality of opportunity.

There is a decrease in the efficiency of the courses (19.4%). The primary solution suggestions for the problems experienced by the students are the opening of schools and transition to formal education (21.8%), providing computer, tablet, and internet support to students with disabilities (13.8%) to eliminate technical problems, using different teaching methods in the teaching of the lessons, and reducing the homework given. In addition, there are suggestions such as removing the attendance requirement, sharing the course records and materials on time (10.1%), making the regulation regarding the time and camera requirement within the scope of online exams (8.6%), giving theoretical lessons formally with online education (5.5%) and providing internet support by the university.

DISCUSSION

When the student's socioeconomic status was reviewed, it was observed that the income of 64.9% of the students was equal to the expenditure. In the study, it was reported that 49.9% of the students adapted to the distance education process in a short time, 72.8% of them regularly attended their classes, and 57.9% of them followed the distance education on their mobile phones. Another study, Özkul, and Aydın (2012), reported that students' desire for distance education is low and that traditional schooling would be better. Differen from the results of the studies men-

tioned previously, Erfidan (2019) reported that 65% of university students want to receive distance education in his research. Genç and Gümrükçüoğlu (2020) stated that 17.8% of the students participated in distance education by phone in their studies during the pandemic period. Barış (2015) reported that 56.7% of undergraduate students have a smartphone or tablet computer. In a study conducted in China, it was reported that a significant portion of students does not have the equipment to participate in distance education (Lau et al., 2020). It is believed that students face similar problems during the distance education system all over the world. Considering the contribution of mobile learning to distance education in line with these data, it is necessary to increase the opportunities of students to have mobile devices. At the Universities of Murcia and Granada, which received education in health, 300 students studying there were provided with laptop computers free of charge by the university (Ramos-Morcillo et al., 2020). In our country, face-to-face exams at universities have been canceled during the pandemic period. In our study, it was reported that 38.1% of the students found the exams, 51.3% of the students found the homework, projects, etc. studies helpful in the questions about the exams, homework and project studies done during the distance education process, and 54.4% of them had no problems in the distance education exams. Genç and Gümrükçüoğlu (2020) similarly stated that 23.9% of the students were able to concentrate on their exams and 35.3% of them wanted the exams to be face-to-face. In their study examining the attitudes of university students towards distance education during the isolation period due to the COVID-19 virus, Aktaş et al. (2020) concluded that they wanted to follow the lessons remotely in this process, but that 70% of the students did not increase their exam proficiency in this system. Our study determined that 41.6% of the students who had problems in the distance education process could easily reach the people responsible for solving the problem. According to Genç and Gümrükçüoğlu (2020), 64.9% of the students stated that they did not receive any help regarding the Internet and computer during the distance education process. 81.3% of the students who participated in our study stated that it was beneficial for them to watch the recorded lessons again, 72.1% said that they could access the course contents quickly, and 51.5% indicated that they learned in their classes with this system. Similar to the findings we obtained, Serçemeli and Kurnaz (2020) also asserted that 68.5% of the students during the pandemic period helped them understand the lesson better when watching the course recordings again. In our study, 67.7% of the students stated that distance education is not as effective as formal education. Genç and Gümrükçüoğlu (2020) similarly reported that only 15.3% of students get the same efficiency from online courses as in face-to-face education. In addition, 55.9% of the students stated that they communicated effectively with the instructors during the distance education process, and 52.4% declared that they could receive sufficient feedback from the instructors and freely express their thoughts. Aktaş et al. (2020) similarly reported that 78.5% of students received support from instructors during distance educati-

on. In the study, 38.8% of the students said that the technical infrastructure of distance education was sufficient. Similar to our study, Serçemeli and Kurnaz (2020) also reported that 45.7% did not experience any technical problems. Similar to our research, Sahu (2020) said that students experience difficulties with internet access when they log in to the system, infrastructure conditions are complicated, and distance education becomes problematic as all students access the Internet simultaneously. For these reasons, it is considered necessary to develop other methods instead of distance education. Furthermore, the curriculum of the courses should be updated by the instructors. In the study, 49.9% of the students reported that distance education is more economically viable. Considering the cost of distance education, it is seen that it results in lower costs than face-to-face education (Atik, 2007; Çığlık & Bayrak, 2015).

In our study, the increase in efficiency and success in the courses was determined as 36.5%. In the survey carried out by YÖK in Turkey with 1 million 255 thousand students from 207 universities on the efficiency of distance education during the pandemic process, online learning courses are 25% positive (YÖK, 2020). According to the student survey results of another study conducted in Cohcrane in 2020 with the participation of 358 students, it was determined that they thought that distance education was beneficial at a rate of 77.9% (Chakraborty et al., 2020.). The decrease in study lecture efficiency is 52.5%, similar to this result; in a study conducted among 39,854 students at Southeast University in China, it is stated that approximately 50% of the students fully achieve their planned teaching goals (Sun et al.,2020). In a study conducted to investigate the satisfaction levels of university students in distance education courses, it was determined that 86% of the students thought that distance education was not an effective form of learning (Balikçioğlu et al.,2019). In the study conducted by YÖK in Turkey (n=1 million 255 thousand), the rate of students who stated that distance education has a positive effect on education life or that its effect is neutral was determined as 48% (YÖK, 2020). The study states that the students' lack of self-discipline, the unsuitability of the environment for education, and coverage problems related to the Internet effectively decrease course efficiency (Sun et al., 2020).

The study determined that 21.3% of the students experienced technical problems such as systemic problems, Internet, and power cuts. Similarly, in a study conducted in Turkey by Buluk and Eşitti to evaluate distance education by undergraduate tourism students during the coronavirus (COVID-19) period (n=214), they determined that 21.96% of the students had a "lack of computer and/or other equipment" and 27.57% of them were "frequent disconnection from the internet" as the technical problems experienced by the students. In another study conducted in the United Kingdom to evaluate medical students' perceptions towards distance education during the COVID-19 period, poor internet connection was defined as an obstacle to online education at a rate of 21.3% (Dost et al., 2020). On the

other hand, the fact that the lecturers can be accessed online not only from a single source, but also with equipment that will continue the interaction asynchronously outside of class times, in terms of the fact that the lectures are recorded and can be watched later, and that the disruption in the internet connection does not harm the interactive interaction between the student and the lecturer, is the reason for the internet problems. It is an essential element that will support students in preventing the problem.

In our study, 20.3% of the students stated that the inability to carry out laboratory and clinical practices during the distance education process negatively affected their skill development. They had professional anxiety in this regard. In a large-scale study of medical school students in China, 68.72% of students stated that they thought that online education was not very useful in terms of skills (Wang et al., 2020). If the pandemic continues, it is crucial to use technology in this regard (Wang et al., 2020).

In the recent past, distance education, which was considered an alternative to face-to-face education or used as a complement to face-to-face education, has become the only application used in educational activities with the COVID-19 pandemic. While there are many problems even in the planned distance education model, the rapid transition to the distance education model without the necessary preliminary evaluations due to this unexpected epidemic caused some negativities or disruptions (Bilgic et al., 2011; Bilgiç & Tüzün, 2015; Çelen et al., 2011; Kırmacı & Acar, 2018). Muilenburg and Berge (2005) revealed the problems encountered in distance education with factor analysis. According to the findings of the study, the titles that emerged as problems are as follows: (a) Administrative problems, (b) social interaction, (c) academic competencies, (d) technical competencies, (e) motivation of the learner, (f) necessary time and support for studies, (g) internet access costs (h) technical issues. Technical/technological support, among the problems mentioned, is the most common distance education problem (El Turk &Cherney, 2016; Watkins & Kaufman, 2003). Floyd and Casey-Powell's (2004) study focused on the following topics as problems: The software used in online support services is not user-friendly and student-centered, delays in feedback (advice, career, academic counseling services, and library resources), the scope of student support services, the lack of restructuring and systematic implementation, the need for a continuous assessment on all students to ensure success. In our study, students' perspectives on the problems were revealed. Similarly, the most common problems in this process were technical infrastructure problems such as internet and power outages, inequality of opportunity and motivation problems arising from the device used, the poor physical conditions of the home environment, and limited internet package. When only computers were used in distance education, the expensiveness of computers limited students' access to a great extent. However, nowadays, smartphones, tablets, and laptops are ubiquitous as an alternative to desktop computers.

Therefore, there is a problem with accessing the Internet rather than the context of the tool that can access it. On the other hand, in our study, students stated that they experience inadequacy in their devices that provide internet access, which leads to inequality of opportunity in education. It shows that the technical infrastructure that will enable all students to participate in the course is insufficient. In our study, 59% of our students reported that they had technical infrastructure problems such as internet access. Simonson et al. (2014) emphasized that distance and face-to-face education environments should be prepared as equivalent environments within the scope of equality theory. In this context, institutions and management are responsible for transferring educational environments from face-to-face education environments to distance education environments. Lee and Choi (2011) stated that the place where students live significantly affects access to the Internet. In addition to its academic dimension, the online environment is an environment where the responsibility of technological competence is constantly imposed on students and other stakeholders (Gillett-Swan, 2017). In this context, it has been determined that students experience some problems based on their lack of technical knowledge. These problems, which are generally based on technical issues, may also arise from the compatibility of the distance education application with mobile phones. To carry out the distance education model healthier, it is clear that distance education providers and students should receive intensive support in terms of technological knowledge. The educational materials prepared within the framework of the adaptation training given to the distance education students must be easily accessible for the students to benefit easily when they have problems.

Horton (2006) stated the advantages such as the potential of students to ask questions in synchronous (synchronous) lessons, the absence of conditions to prepare asynchronous (asynchronous) course material, and being open to discussion. In asynchronous lessons, course materials are given together with virtual classroom sessions. In asynchronous classes, the information provided can be repeated in the virtual classroom, and students have the opportunity to watch the lesson again. Questions can be asked via e-mail, texting, or using other communication channels. However, students who stated that they attended the lesson regularly found the classes boring and that situations such as asking instant questions in writing before the time passed and the absence of an audio discussion environment reduced their motivation (Horton, 2006; Ilgaz, 2014). Our study revealed that the motivation problem is a vital distance education problem with a share of 19.4%. Engaging in virtual classroom activities is essential in terms of one-on-one interaction opportunities. However, in terms of helping to learn, the most important participation is seen as active participation and being in the lesson (Lehman & Conceição, 2010). The feeling of isolation of the students, one of the most significant disadvantages of distance education compared to traditional education, and the loss of motivation resulting from this is also the most critical problem of

support services. Another problem is the concept of "closeness," which is defined as the perceived psychological distance between those communicating. It is crucial to establish the necessary infrastructure and units to minimize the psychological distance in all institutions dealing with distance education. Thus, it will be helpful to provide support to learners as soon as they need it (Durak, 2017). On the other hand, it is stated that students should take the responsibility they bear in attending formal courses in distance education courses. That especially the live participation rate emerges as the instructors complain about the most (Bilgiç & Tuzun, 2015; Sümer, 2016). Students enter the assessment-oriented distance education system; in other words, their behavior towards passing the course significantly affects participation in the course. By planning activities to ensure active participation in the virtual classroom session for this situation, both the students' learning process can be supported, and the boring situation of the lesson can be eliminated (Kırmacı & Acar, 2018).

Simonson et al. (2014) stated that the instructors who plan and prepare the lesson should be aware of the student's situation and take precautions accordingly. For instance, they argued that it would be beneficial for students to start the session a specific time ago to solve their problems, such as technical problems and not being able to catch up with the lesson and to answer the questions of the students who participated outside of the lecture during this period. In this balancing process, the realization of learning success is parallel to the active participation of the students in the session. On the other hand, it is stated that students' self-regulation skills, especially planning skills, are a determining factor in terms of success and satisfaction in distance education (İnan et al., 2017). The primary solution suggestions for the problems experienced in our study are to provide computer, tablet, and internet support to the students with a deficiency to eliminate the technical issues, to add different expression techniques in the teaching of the lessons, to share the course records, and materials on time. Moreover, administrators, school management and educators should solve issues that should be solved, such as regulating time and camera obligation within the scope of online exams and the formal teaching of theoretical courses with online education, presented as solution suggestions.

In this study, situations and problems experienced in virtual classroom sessions created within the scope of distance education are considered from the perspective of campus students. As a result, it has been determined that the students most frequently experience technical and inequality of opportunity problems such as not having the necessary technological equipment (computer, camera, etc.), having to follow the lessons by phone, and accessing the Internet. In addition to the inadequacy of infrastructure, time and space, students also have difficulties related to individual attitudes, such as loss of motivation arising from isolation. We think that institutions and administrations' consideration and evaluation of the identified problems will help institutions conduct distance education more healthily. In

future studies, we believe that new technologies in distance education can be examined, and recent studies can be carried out for those that can be used in support services. To gain in-depth knowledge about these technologies and bring various regulations for using related technologies, studies can be carried out to develop pilot applications of such technologies and get users' opinions. At the same time, it is thought that comparative studies can be planned on how various universities provide support services.

CONCLUSION AND SUGGESTIONS

The mean age of the men and women participating in the study is in a similar range. The majority of the students are women, and almost all of them are single. Nearly half of the students reside in the city center, and about half live in the district centers. In terms of the socioeconomic level of the students, the income of more than half is equal to their expenses. It was determined that most of the study participants had siblings who received distance education at home, apart from themselves. More than half of the students stated that the device they used to follow the distance education was a mobile phone, and more than half of them indicated that they spent the most time on the screen in a day to attend the lesson and the least time to research a subject. More than half of the students stated that they had problems with the distance education process. More than half of the students stated that they did not benefit from the distance education platform of the university to solve the problems they experienced. While nearly half of the students adapted to the distance education process quickly, it was observed that more than half of them attended their classes regularly. More than half of the students who participated in the study stated that watching the recorded lessons again benefited them and quickly accessed the course content. Simultaneously, half of the students stated that this system provides learning in their lessons.

It was reported that more than half of the students found the homework, project, etc., studies helpful in the questions about exams, tasks and project studies during the distance education process. In addition, more than half of the students stated that they communicated effectively with the instructors during the distance education process, received sufficient feedback from the instructors and expressed their thoughts freely. Nevertheless, most students disagree that distance education is as effective as formal education and think distance education reduces teamwork by directing students to individual work. Furthermore, half of the students do not believe that distance education is an adequate and effective learning model. In addition to these views, more than half of the students stated that distance education could be an alternative solution to formal education.

In our study, when the answers of the students regarding the positive aspects of the distance education system are categorized, the increase in efficiency and

success from the courses is in the first place due to the ability to watch the course records again, the easy access to the course materials and the effective communication with the instructor.

When the negative aspects of distance education are analyzed, it is seen that one of the most critical deficiencies in the content used in education. Inadequate content is the most crucial factor leading to a decrease in course efficiency. Therefore, to develop content, textbases (electronic books, lecture notes, etc.) and content (video, sound, animation, simulation, etc.) that may attract students' attention should be developed by distance education institutions and organizations build content.

When the data regarding the problems experienced by the students in the distance education process and the solution suggestions for the issues were examined and it was determined that the most common problems in this process were technical infrastructure problems such as internet and power outages. In general, in the distance education system, courses should be given synchronously and asynchronously. Distance education cannot reach sufficient effectiveness unless the asynchronous education, in which the trainers and the trainees are in different places and times, is supported by synchronous education. However, broadband data communication is also needed in synchronous education performed over online lines.

The primary solution suggestions for the problems experienced by students regarding distance education are the opening of schools and the transition to formal education. Face-to-face, one-to-one or interactive transfer is a crucial and indispensable element in education. Just as every teacher has a unique method of expression, every student has his/her perception capacity and style. In case of insufficient or lack of interaction in education, the teacher will not benefit from auxiliary elements such as facial expressions, body movements and tone of voice directly affecting the expression. However, students will not be able to get total efficiency from education without the help of these elements. It is thought that distance education will be much more beneficial by providing student-instructor interaction in distance education similar to traditional classrooms and using the opportunities offered by technology.

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No conflict of interest was declared by the authors.

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