The Correlation between the Levels of Self-Efficacy, Hopelessness, and Motivation of Midwifery Students Who Were Having Education during the Pandemic Period: A Cross-sectional Study

Pandemi Sürecinde Eğitim Alan Ebelik Öğrencilerinin Öz-Yeterlilik Düzeyleri ile Umutsuzluk ve Motivasyon Düzeyleri Arasındaki İlişki

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ABSTRACT

The research was carried out to determine the correlation between the levels of self-efficacy, hopelessness, and motivation of midwifery students who were having education during the pandemic period.

The sample of the cross-sectional-analytical study consisted of 190 midwifery students. The "Student Information Form", "General Self-Efficacy Scale (GSES)", "Beck Hopelessness Scale (BHS)" and "Motivation's Resources and Problems Scale (MRPS)" were used to collect the data. In the statistical analysis of the data, in addition to descriptive statistics, Independent Samples t-test, One Way ANOVA, Mann Whitney-U test, Kruskal-Wallis test, and Pearson correlation tests were used.

In the study, a negative, statistically significant moderate correlation was found between the students' GSES total score average and the BHS total score average, and a positive statistically significant moderate correlation between the MRPS total score average ($p<0.001$).

In the study, it was determined that most of the students felt incompetent in the clinical practice of online distance midwifery education that they received during the pandemic, and that half of the students thought that only online distance education was not appropriate for midwifery education, and it was determined that as students' motivation levels increased and their hopelessness levels decreased, their self-efficacy levels increased.

Keywords: Pandemic, Midwifery students, Self-efficacy, Hopelessness, Motivation

ÖZ

Araştırma, pandemi sürecinde eğitim alan ebelik öğrencilerinin öz-yeterlilik düzeyleri ile umutsuzluk ve motivasyon düzeyleri arasındaki ilişkinin belirlenmesi amacıyla gerçekleştirilmiştir.

Kesitsel-analitik türde yapılan araştırmanın örneklemini 190 ebelik öğrencisi oluşturmuştur. Verilerin toplanmasında "Öğrenci Bilgi Formu", "Genel Öz-Yeterlilik Ölçeği (GÖYÖ)", Beck Umutsuzluk Ölçeği (BUÖ)" ve "Güdülenme Kaynakları ve Sorunları Ölçeği (GKSÖ)" kullanılmıştır. Verilerin istatistiksel değerlendirmesinde; tanımlayıcı istatistiklerin yanı sıra Independent t-testi, One Way Anova, Mann Whitney-U testi, Kruskal Wallis testi ile Pearson korelasyon testleri kullanılmıştır.

Araştırmada öğrencilerin GÖYÖ toplam puan ortalamaları ile BUÖ toplam puan ortalamaları arasında negatif, GKSÖ toplam puan ortalamaları arasında pozitif yönde istatistiksel olarak anlamlı orta düzeyde bir ilişki bulunmuştur ($p<0.001$).

Araştırmada öğrencilerin çoğunun pandemi sürecinde aldıkları çevrimiçi uzaktan ebelik eğitimi ile ilgili klinik uygulama alanında kendilerini yetersiz hissettikleri ve öğrencilerin yarısının ebelik eğitimi için sadece çevrimiçi uzaktan eğitimin uygun olmadığını düşündükleri belirlenmiş olup öğrencilerin motivasyonları arttıkça ve umutsuzlukları azaldıkça öz yeterlilik düzeylerinin arttığı belirlenmiştir.

Anahtar Kelimeler: Pandemi, Ebelik öğrencileri, Öz yeterlilik, Umutsuzluk, Motivasyo

Approval was obtained from the faculty of health sciences' non-interventional clinical research ethics committee of the relevant university to conduct the study (Decision Number: 2021/1791).

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INTRODUCTION

Since the new coronavirus (COVID-19) was declared as a pandemic, it has had a dramatic impact on individuals' daily life, health, family life, politics, and security in all countries of the world. Health authorities in many countries are implementing lockdowns and social distancing protocols to flatten the infection curve.[1] In this context, many countries around the world had to stop face-to-face education in schools to prevent the spread of the virus.[2] In addition to facing a global health emergency that creates fear and anxiety, students have been shifted into online distance learning, which requires quick adjustments and affects their daily habits, experiences, and expectations.[3] In this period, as in many other countries, schools were temporarily closed in Turkey, and it was decided to continue education with the online distance education model.[4] According to a United Nations policy brief in August 2020, approximately 1.6 billion students in more than 190 countries from all continents have been affected by the COVID-19 pandemic.[5]

The closure of schools during the COVID-19 pandemic has affected the mental health of young people in many countries, leading to increased anxiety and loneliness.[6] Epidemics cause problems such as fear, anxiety, loneliness, depression, and hopelessness in individuals with or without a high risk of disease.[7] Students need more internal motivation to adapt to the changes caused by the COVID-19 pandemic[1] While meeting basic psychological needs has a positive effect on the individual's well-being and development, not meeting them can turn into a feeling of discomfort that can lead to hopelessness, low motivation, and the onset of mental health problems.[8] Important concepts for psychological well-being are self-efficacy[9] and motivation.[10,11] Recent studies have indicated that there is indeed a decline in students' academic motivation during the COVID-19 pandemic.[10,11] Motivation is one of the most important power sources in education, as it is a strong predictor of basic academic skills and contributes to students' psychological well-being, academic success, and graduation.[11] In addition, it should be noted that motivation might contribute to academic success when considered together with cognitive skills.[12]

Midwives have important roles in the protection, development, and maintenance of mother-child health.[13] In addition, midwives have a key role in reducing maternal and neonatal mortality rates.[14,15] For this reason, the quality of clinical training received by midwives is extremely important in fulfilling their responsibilities.[13-15] With the rapid transition from face-to-face education to distance education after the pandemic, nursing and midwifery education has also been negatively affected.[16,17] Clinical learning is an indispensable part of nursing and midwifery programs and is the integration of theoretical and practical learning experiences that play an important role in the acquisition of professional skills.[18] While students who cannot do their clinical practice in this period have difficulty in developing their knowledge and skills, students who do their clinical practice face problems such as infection, spreading the infection, or needing personal protective equipment to protect themselves.[15,16]

Although it has been emphasized that the COVID-19 pandemic affects university students physically and mentally,[10,11] it is important to understand how students have felt in this period. As a matter of fact, in some countries, students had to postpone their graduation and work more.[19] This situation might lead to an increase in the students' anxiety levels about the future, leading to hopelessness, and lack of motivation. While the sense of self-efficacy shows a positive correlation with motivation,[9] it shows a negative correlation with hopelessness. In the literature, the

correlations between self-efficacy and the commitment to life,[20] motivation,[9,21] and hopelessness[22] have been found. However, no study was found in which the levels of self-efficacy, motivation, and hopelessness were examined together. With the current study, which was conducted to determine the correlation between the levels of self-efficacy of midwifery students who were having education during the COVID-19 pandemic period, and their levels of hopelessness and motivation, it was aimed to determine the effects of the education received during the pandemic period on midwifery students, to define the obstacles to the academic success of the students, to take appropriate precautions for the future, and to contribute effective use of the resources.

MATERIAL AND METHOD

Research Design

The research was carried out in a cross-sectional/analytical design between the dates of March 01 and May 31, 2021 in the Department of Midwifery, Faculty of Health Sciences of a public university.

Research Sample

The population of the research consisted of 190 midwifery students (1st, 2nd, and 3rd grades) studying at the relevant University, Faculty of Health Sciences, Department of Midwifery in the 2020-2021 academic year. Since the intern system was implemented in the midwifery department of the relevant faculty, 4th-grade midwifery students (not included in online distance education) were not included in the population of the research. Sample calculation was not used in the study, and it was aimed to reach all students in the universe. The sample of the study consisted of 190 midwifery students studying in the midwifery department of the relevant faculty, using a smartphone, taking online distance education, and voluntarily participating in the study.

Data Collection Tools

The “Student Information Form”, “General Self-Efficacy Scale”, “Beck Hopelessness Scale” and “Motivation's Resources and Problems Scale” were used to collect the data of the study.

Student Information Form

In the student information form prepared by the researchers, there are 20 questions including the socio-demographic characteristics (age, grade, place of residency, family structure, economic level, etc.) and the views on education during the COVID-19 pandemic period.[23-26]

General Self-Efficacy Scale (GSES*)* The GSES was developed by Sherer et al. (1982) and its Turkish validity and reliability study was carried out by Yıldırım and İlhan (2010). The GSES aims to determine the general self-efficacy of adults. The scale is in the five-point Likert type consisting of 17 items and three subscales: "initiation", "maintenance", and "persistence". Each question is scored between 1: Never and 5: Always. Items 2, 4, 5, 6, 7, 10, 11, 12, 14, 16, and 17 are reverse scored on the scale. The lowest 17 and the highest 85 points can be obtained from the scale. As the scores obtained from the scale increase, the self-efficacy beliefs also increase. The Cronbach's alpha value of the original scale was 0.86; the Cronbach alpha value of the Turkish version was reported as 0.80.[27,28]

Beck Hopelessness Scale (BHS)

The BHS was developed by Beck et al. (1974) and its Turkish validity and reliability study was carried out by Durak and Palabıyıkoğlu (1994). The BHS measures the levels of individuals' future

expectations and hopelessness. Individuals indicate the expressions that are suitable for them by ticking "yes" and the expressions that are not suitable for them by ticking "no". The scale consists of 20 items in total. Items 1, 3, 5, 6, 8, 10, 13, 15, and 19 are reverse scored on the scale. A "yes" answer to the given question gets a '1' point, and a no answer gets a '0' point. A score of 0-20 can be obtained from the scale, and an increase in the scores obtained from the scale means that hopelessness increases. The Cronbach's alpha value of the original scale was reported as 0.93.[29.30]

Motivation's Resources and Problems Scale (MRPS)

The MRPS was developed by Acat and Köşgeroğlu (2006) and its validity and reliability study was conducted. The MRPS consists of three subscales as "intrinsic, extrinsic, and negative motivation" and 24 items. Each item is scored as "1: I strongly disagree, 2: I do not agree, 3: I am undecided, 4: I agree, 5: I strongly agree", and the scale is in the five-point Likert type. The lowest score that can be obtained from the scale is 24, and the highest score is 120. The higher the score obtained from the scale, the higher the motivation level. The Cronbach's alpha value of the original scale was reported as 0.82.[31]

Data Collection

The data of the study was collected using a web-based online questionnaire. The questionnaire forms created using the Google forms application were sent to the students studying at the 1st, 2nd and 3rd grades of the related department in the 2020-2021 academic year by sending an online questionnaire link. During the first submission, information about the study was given, they were invited to the study, and their consent was obtained. It was ensured that the students participating in the survey could only give one answer. The data was collected from students by utilizing the self-report method. Answering the questions took an average of 10 minutes for each student.

Data Analysis

Coding and analysis of the data were carried out in a computer environment with Statistical Package for Social Sciences (SPSS) for Windows (IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY) statistical package program. In the analysis of the data, firstly, whether the variables showed normal distribution or not was determined by using the Kolmogorov-Smirnov test. In the statistical analysis, descriptive statistics (number, percentage distributions, mean, standard deviation), and Independent Samples t-test, One Way ANOVA, Mann Whitney-U test, Kruskal-Wallis test, and Pearson correlation tests were used. The results were analyzed at a $p<0.05$ significance level.

Ethical Principles of the Study

Approval was obtained from the faculty of health sciences' non-interventional clinical research ethics committee of the relevant university to conduct the study (Decision Number: 2021/1791). However, before the study, a permission was obtained from the relevant institution where the research would be conducted, the students were informed about the study, and those who volunteered to participate were included in the research after they stated that they volunteered through Google forms application.

Limitation of the Research

The research has some limitations. Conducting the research in a single center and online is a limitation of the research. In the pandemic process in Turkey, in accordance with the decisions of the Higher Education Board, each university has taken different measures on the basis of applied departments and non-applied departments, taking into account the pandemic conditions regarding education and training in line with the province and its own conditions. For this reason, the results of this research, in which the use of online method is preferred, can be generalized only to this group, although it has risks such as the fact

that the person cannot be verified, since it is aimed to reach the entire universe during the pandemic process.

RESULTS AND DISCUSSION

The average age of the students was 20.64±1.930 (min: 17, max: 31). 36.3% of the students were in the 3rd grade, 55.3% of them have spent most of their lives in the city center, 75.3% of them had a nuclear family, 85.3% of them had a medium economic level, and 95.3% of them were not employed. 43.2% of the students stated that the educational level of their mother was primary school, and 34.7% of the students stated that the educational level of their father was primary school, and 93.7% of them resided with their families during the pandemic period. 65.3% of the students stated that they chose the midwifery department willingly, 93.7% of them were satisfied with the midwifery profession, 89.5% of them did not retake the failed courses, and 64.2% of them stated that they wanted to be a midwife in the field after graduation. 65.3% of the students did not find the midwifery education during the pandemic period sufficient, 87.6% of them did not feel competent on the midwifery education they received during the pandemic period, and 96.4% stated that they found the training in the field of clinical practice related to midwifery education during the pandemic period insufficient. 50% of the students stated that only online distance education is not appropriate for midwifery education, 58.4% of them stated that the education model in which both face-to-face and online distance education are applied together might make positive contributions to midwifery education, and 66.3% of them stated that the education model in which face-to-face and online distance education are applied together for midwifery education during the pandemic period is more appropriate (Table 1).

Table 1. The distribution of students' professional characteristics and their views on midwifery education during the pandemic period (n=190)

Students' professional characteristics and their opinions on midwifery education during the pandemic period	**n**	**%**
The status of choosing the department willingly		
Present	124	65.3
Absent	66	34.7
The status of professional satisfaction		
Satisfied	178	93.7
Not satisfied	12	6.3
The status of retaking a failed course		
Those who were retaking a failed course	20	10.5
Those who were not retaking a failed course	170	89.5
Desired field of study after graduation		
Midwifery in the Field	122	64.2
Academic Field	68	35.8
The status of finding midwifery education sufficient during the pandemic period		
Sufficient	66	34.7

Table 1 (Continued)		
Insufficient	124	65.3
The status of feeling competent on midwifery education during the pandemic period		
Those who felt competent	24	12.6
Those who felt incompetent	166	87.4
The area felt insufficient regarding the midwifery education received during the pandemic period (n=165)		
Theoretical Courses	6	3.6
Clinical Practices	159	96.4
Opinion on whether only online distance education is appropriate for midwifery education		
Appropriate	8	4.2
Inappropriate	95	50.0
Partially Appropriate	87	45.8
Opinion on whether face-to-face+online distance education can make a positive contribution to midwifery education		
Yes, it might make a contribution	111	58.4
No, it might not make a contribution	13	6.8
It might make a partial contribution	66	34.8
Opinion on the education model that is appropriate for midwifery education during the pandemic period		
Only online distance education	18	9.5
Only face to face education	46	24.2
Face to face+Online distance education	126	66.3

The total score average of the students in the GSES is 61.28±10.77, the total score average from the GSES's subscale of "initiation" is 32.72±7.06, 17.91±3.51 in the subscale of "maintenance", and 10.65±1.92 in the subscale of "persistence". The total score average of the students in the BHS is 4.54±4.71. The total score average of the students in the MRPS is 94.08±12.407, the total score average in the MRPS's subscale of "intrinsic motivation" is 44.64±6.89, 21.59±2.92 in the subscale of "extrinsic motivation", and 27.85±6.23 in the subscale of "negative motivation" (Table 2).

Table 2. Descriptive statistics of the GSES and its subscales', the BHS, and the MRPS and its subscales' total score averages (n=190)

	Scales	mean ± SD	Min-Max values received	Min-Max values that could be taken
The GSES's Subscales	Initiation	32.72±7.06	11-45	9-45
	Maintenance	17.91±3.51	8-25	5-25
	Persistence	10.65±1.92	3-15	3-15
GSES Total		61.28±10.77	29-83	17-85
BHS Total		4.54±4.71	0-20	0-20
The MRPS's Subscales	Intrinsic Motivation	44.64±6.89	17-55	11-55

	Table2 (Continued)			
	Extrinsic Motivation	21.59±2.92	7-25	5-25
	Negative Motivation	27.85±6.23	8-40	8-40
MRPS Total		94.08±12.40	56-120	24-120

SD=Standard Deviation

In the study, some socio-demographic characteristics of the students and their total score averages from GSES, BHS, and MRPS were compared. A statistically significant difference was found between the family structure of the students and the MRPS total score average. The total score average of the students with nuclear family structure in the MRPS are statistically significantly higher than the students with extended family structure ($p<0.05$). No statistically significant difference was found between the socio-demographic characteristics of the students and their GSES and BHS total score averages ($p>0.05$) (Table 3).

Table 3. The distribution of the GSES, BHS, and MRPS total score averages according to some socio-demographic characteristics of the students

Socio-Demographic Characteristics	**GSES**		**BHS**		**MRPS**	
Grade	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**
1	60.10±9.88	F=1.209 p=0.301	4.17±4.44	F=0.287 p=0.751	95.41±12.10	F=1.523 p=0.221
2	62.98±11.21		4.81±5.09		95.13±12.68	
3	60.77±11.06		4.61±4.62		92.01±12.31	
The Place That They Have Spent Most of Their Life	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**
Village	62.57±9.23	F=1.478 p=0.231	4.54±4.09	F=2.619 p=0.076	92.43±14.95	F=1.465 p=0.234
District	59.08±10.79		5.78±5.09		92.34±11.61	
Province	61.90±11.17		3.94±4.64		95.47±11.77	
Family Structure	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**
Nuclear family	62.04±11.13	t=1.700 p=0.091	4.42±4.70	t=-0.597 p=0.551	95.64±12.39	**t=3.089 p=0.002**
Extended family	58.98±9.30		4.89±4.75		89.34±11.31	
Economic Level	**Median (25%-75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**
High	64.0 (60.5-75.5)	$\chi2$=4.577 p=0.101	2.0 (1.0-8.5)	$\chi2$=0.521 p=0.771	103.0 (90.7-107.2)	$\chi2$=3.206 p=0.201
Medium	62.0 (55.0-68.0)		3.0 (1.0-7.0)		94.0 (86.7-102.0)	
Low	56.0 (45.7-66.0)		2.5 (0.7-5.7)		90.5 (85.2-90.5)	

F=Anova test, t=independent samples t-test, X2=Kruskal Wallis test

In Table 4, the professional characteristics of the students, their views on midwifery education during the pandemic period, and the total score

averages they got from the GSES, BHS, and MRPS were compared. The GSES total score average of the students who did not feel competent on the midwifery education received during the COVID-19 pandemic period were found to be statistically significantly higher than those who felt competent ($p<0.05$). The BHS total score average of the students who were satisfied with the midwifery profession were found to be statistically significantly lower than those who were not satisfied ($p<0.05$). In addition, the BHS total score average of the students who stated that the education model in which both face-to-face and online distance education are applied for midwifery education during the pandemic is appropriate was statistically significantly lower than the students who found the education model in which only online distance education is applied for midwifery education during the pandemic is appropriate ($p<0.05$). The MRPS total score average of the students who were retaking failed courses were found to be statistically significantly lower than those who were not retaking failed courses, the MRPS total score average of those who chose the midwifery department unintentionally were found to be statistically significantly lower than those who chose the midwifery department voluntarily, the MRPS total score average of those who were not satisfied with the midwifery profession were found to be statistically significantly lower than those who were satisfied with the profession ($p<0.05$). In addition, the MRPS total score average of the students who found online distance education partially appropriate for midwifery education were found to be statistically significantly lower than the students who thought that it is not appropriate ($p<0.05$).

Table 4. The distribution of the GSES, BHS, and MRPS total score averages according to the students' views on some professional characteristics and midwifery education during the pandemic period

Professional characteristics and opinions on midwifery education during the pandemic period	**GSES**		**BHS**		**MRPS**	
The status of retaking a failed course	**Median (25%-75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**
Those who were retaking a failed course	57.0 (49.5-68.0)	Z=-1.568 p=0.117	7.0 (1.2-11.0)	Z=-1.930 p=0.054	89.0 (84.0-96.0)	**Z=-2.086 p=0.037**
Those who were not retaking a failed course	62.0 (56.0-68.0)		2.5 (1.0-6.0)		95.5 (87.0-104.2)	
The status of choosing the department willingly	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**
Present	61.24±10.85	t=-0.074 p=0.941	4.41±4.77	t=-0.502 p=0. 616	95.53±12.25	**t=2.228 p=0.027**
Absent	61.36±10.69		4.77±4.61		91.36±12.31	
The status of professional satisfaction	**Median (25%-75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**
Satisfied	62.0 (55.7-68.2)	Z=-1.930 p=0.054	2.0 (1.0-6.2)	**Z=-2.085 p=0.037**	95.5 (87.0-104.0)	**Z=-3.380 p=0.001**
Not satisfied	56.5 (48.2-63.5)		5.0 (3.0-5.0)		84.5 (64.2-88.7)	

Table 4 (Continued)

Desired field of study after graduation	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**
Midwifery in the Field	60.72±10.63	t=-0.965 p=0.336	4.51±4.45	t=-0.112 p=0.911	94.89±11.82	t=1.193 p=0.234
Academic Field	62.29±11.02		4.59±5.16		92.65±13.36	
The status of finding midwifery education sufficient during the pandemic period	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**	**mean ± SD**	**Test and p-values**
Sufficient	60.73±11.55	t=-0.519 p=0.604	4.24±4.14	t=-0.627 p=0.531	93.21±12.50	t=-0.706 p=0.481
Insufficient	61.58±10.36		4.69±4.99		94.55±12.38	
The status of feeling competent on midwifery education during the COVID-19 pandemic period	**Median (25%-75%)**	**Test and p-values**	**Median (25% 75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**
Those who felt competent	56.5 (51.0-62.0)	**Z=-2.538 p=0.011**	3.0 (1.0-8.0)	Z=-0.999 p=0.318	91.0 (86.2-95.7)	Z=-1.873 p=0.061
Those who felt incompetent	63.0 (56.0-69.0)		2.0 (1.0-6.2)		96.0 (87.0-104.2)	
Opinion on whether only online distance education is appropriate for midwifery education	**Median (25%-75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**
Appropriate	56.5 (49.2-74.7)	$\chi2$=2.110 p=0.348	3.0 (0.2-10.2)	$\chi2$=0.187 p=0.911	95.5 (89.2-105.2)[a]	**$\chi2$=8.292 p=0.016** b>c
Inappropriate	64.0 (56.0-69.0)		3.0 (1.0-7.0)		97.0 (88.0-106.0)[b]	
Partially Appropriate	62.0 (55.0-66.0)		2.0 (1.0-6.0)		92.0 (86.0-99.0)[c]	
Opinion on whether face-to-face+online distance education can make a positive contribution to midwifery education	**Median (25%-75%)**	**Test and p-values**	**Median (25%75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**
Yes, it might make a contribution	63.0 (56.0-69.0)	$\chi2$=2.178 p=0.337	2.0 (1.0-5.0)	$\chi2$=5.318 p=0.070	96.0 (88.0-102.0)	$\chi2$=2.209 p=0.331
No, it might not make a contribution	57.0 (48.5-68.5)		10.0 (1.5-15.0)		86.0 (80.0-108.0)	
It might make a partial contribution	61.0 (54.5-68.0)		3.0 (1.0-7.0)		90.0 (86.7-104.2)	
Opinion on the education model that is appropriate for midwifery education during the pandemic period	**Median (25%-75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**	**Median (25%-75%)**	**Test and p-values**
Only online distance education	54.5 (47.5-65.7)	$\chi2$=4.668 p=0.097	8.0 (2.7-11.0)[a]	**$\chi2$=6.465 p=0.039** a>c	89.5 (78.0-96.7)	$\chi2$=4.151 p=0.125
Only face to face education	64.0 (55.2-69.0)		2.5 (1.0-9.0)[b]		91.0 (84.0-104.2)	
Face to face+Online distance education	62.0 (56.0-68.0)		2.0 (1.0-5.0)[c]		96.0 (87.0-104.0)	

t=independent samples t-test, X^2= Kruskal Wallis test, Z=Mann Whitney-U test

In Table 5, the correlation between students' GSES and its subscales', BHS, and MRPS and its subscales' total score averages was examined. A negative, statistically significant moderate correlation was found between the students' GSES total score average and GSES's subscales of "initiation" and "maintenance" total score averages and their BHS total score average ($p<0.001$). In addition, a negative statistically significant and weak correlation was found between the students' total score average in the "persistence" subscale of GSES and their BHS total score average ($p<0.001$). A positive, statistically significant moderate correlation was found between the students' GSES total score average and its subscale of "maintenance" total score average and their MRPS total score average ($p<0.001$). In addition, a positive and statistically significant weak correlation was found between the students' total score averages in the GSES's subscales of "initiation" and "persistence" and their MRPS total score average ($p<0.001$). A positive and statistically significant weak correlation was found between the students' GSES total score average and its subscales' total score averages and the total score averages of the MRPS's subscales of "intrinsic motivation" and "extrinsic motivation" ($p<0.001$). A positive and statistically significant moderate correlation was found between the students' GSES total score average and the MRPS's subscale of "negative motivation" total score average ($p<0.001$). On the other hand, a positive and statistically significant weak correlation was found between the total score averages of the students' GSES's subscales and the total score average of the MRPS's subscale of "negative motivation" ($p<0.001$). According to these results, as the BHS total score average of students decreases, and as the MRPS and its subscales' total score averages increase, the GSES and its subscales' total score averages also increase (Table 5).

Table 5. The Correlation between the Students' GSES and Its Subscales', BHS, and MRPS and Its Subscales' Total Score Averages

SCALES	BHS	MRPS	Intrinsic Motivation	Extrinsic Motivation	Negative Motivation
GSES					
r	**-0.622**	**0.541**	**0.407**	**0.250**	**0.510**
p	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
Initiation					
r	**-0.562**	**0.469**	**0.364**	**0.209**	**0.433**
p	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
Maintenance					
r	**-0.559**	**0.500**	**0.369**	**0.222**	**0.483**
p	**0.000**	**0.000**	**0.000**	**0.002**	**0.000**
Persistence					
r	**-0.399**	**0.394**	**0.267**	**0.228**	**0.381**
p	**0.000**	**0.000**	**0.000**	**0.002**	**0.000**

r= pearson correlation test

Self-efficacy is closely related to a person's beliefs about what he/she can do and to the various efforts that he/she makes while performing a task.[32] In addition to being an important factor in achieving professional goals for the student,[33] academic achievement increases as academic self-efficacy increases.[34] In addition, it has been stated that the self-efficacy of the student also affects the success of online learning.[35] In the present study, the self-efficacy of the students who did not feel competent on the midwifery education that they received during the COVID-19 pandemic period was found to be higher. Self-efficacy levels are important for students to cope with the problems they encounter in their vocational education.[33]

According to the results of the research, the low levels of self-efficacy of the students who feel incompetent may be due to the fact that the midwifery profession is a skill-based profession, and online distance education received during the pandemic period has been perceived as a problem for vocational education.

Motivation is seen as a prerequisite for students to adapt to the education program.[36] In midwifery education, where theoretical education and clinical practices are carried out together, motivation has positive effects on the development of professional skills.[23] However, it was stated in the literature that the COVID-19 pandemic period negatively affected clinical learning.[14] Taş and Köktürk-Dalcalı (2021) stated in their study, in which they examined the effect of the COVID-19 pandemic on the professional motivation of nursing students, that the distance education and the inability to offer practical courses in a face-to-face format had a negative effect on the motivation of the students.[36] Li et al. (2021) reported that the majority of medical and nursing students were not satisfied with online education, and most students preferred face-to-face communication and interaction in their education.[37] Social interactions often involve a sense of belonging, and students may be less motivated if they lack a sense of belonging.[38] In the present study, half of the students thought that only online distance education is not appropriate for midwifery education. In addition, the motivation levels of these students were found to be higher than those who found online distance education partially appropriate for midwifery education. According to the results of the research, the high motivation of these students may be due to their inability to engage in academic and social interaction related to online distance education alone during the pandemic period and their desire to take action regarding the negative thoughts that this situation may cause on their development of professional skills.

In the current study, most of the students stated that the educational model in which both face-to-face and online distance education are applied together was more appropriate for midwifery education during the pandemic period. In addition, the hopelessness levels of these students were found to be lower than the students who found the education model in which only online distance education is applied more appropriate. While the beneficial effects of academic social interactions on students' learning have been reported in the literature, the negative effects of social isolation on physical and mental health have been emphasized.[38] In the present study, the low level of hopelessness of the students who thought that the education model in which face-to-face and online distance education are applied together is more appropriate for midwifery education can be explained by the students' belief in the contribution of face-to-face education to their learning.

Although self-efficacy and motivation are interrelated elements, both of them affect academic success.[25,34,39] If a student does not have enough motivation to continue his/her education, he/she might experience disappointment, reluctance and failure.[25] On the other hand, it has been reported that the sense of self-efficacy supports personal achievements, reduces stress and susceptibility to depression. In the current study, it was determined that as students' motivation levels increased, their self-efficacy levels also increased. Similarly, it has been reported in the literature that as midwifery students' motivation increases, their sense of self-efficacy also increases.[24,25] Although the results of the research demonstrated parallelism with the literature, it can be said that strategies to increase the motivation of midwifery students during the pandemic period might have positive effects on their self-efficacy levels.

Sudden changes in lifestyles, weakening of social interaction, financial difficulties,

and uncertainty about the future with the transition to the distance education model might increase anxiety levels among the students.[40] There is a strong correlation between the levels of anxiety and hopelessness.[7,26] Kaplan-Serin and Doğan (2021) reported that nursing students whose sleep and diet were adversely affected due to the pandemic, who were afraid of the economic effects of the pandemic, and who did not want to work in the hospital during the pandemic period, had higher levels of anxiety and hopelessness.[7] A high level of self-efficacy is also an important factor in overcoming difficulties.[39] In the study, it was determined that as the hopelessness levels of the students decreased, their self-efficacy levels increased. These results can be interpreted as students' beliefs in reaching their goals might increase as their hopelessness levels decrease.

CONCLUSIONS

In the study, it was determined that most of the students felt incompetent on the clinical practices of online distance midwifery education they received during the COVID-19 pandemic, and half of the students thought that only online distance education was not appropriate for midwifery education. However, it was determined that the self-efficacy levels of midwifery students increased as their motivation levels increased and their hopelessness levels decreased during the pandemic period.

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