

# The Fear of Covid-19 and Professional Commitment in Nursing Students Switching from Online Education to Face-to-face Education: A Cross-sectional Study

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## ABSTRACT

**Purpose:** During the novel coronavirus disease 2019 (COVID-19) pandemic, courses were offered online in departments of nursing, and hence, clinical practices were interrupted. Along with the fall in COVID-19 cases, the decision to switch from online education to face-to-face education was taken. This study was carried out to determine the fear of COVID-19 and professional commitment levels of nursing students who switched from online education to face-to-face education.

**Methods:** The descriptive cross-sectional study was performed with 340 nursing students. The data were collected online with a Personal Data Form, the Fear of COVID-19 Scale (FCV-19S), and the Nursing Professional Commitment Scale (NPCS).

**Results:** The mean FCV-19S score of the participants was found as  $16.44 \pm 6.03$ , whilst their mean NPCS score was identified as  $79.67 \pm 10.53$ . It was determined that there was no statistically significant relationship between nursing the FCV-19S and NPCS scores of the participants ( $p > 0.05$ ).

**Conclusion:** It was discerned that nursing students had below-average levels of fear of COVID-19, while they exhibited moderate professional commitment, and their fear of COVID-19 did not affect their professional commitment.

**Keywords:** COVID-19, coronavirus, nursing student, fear, professional commitment

## Online Eğitimden Yüz Yüze Eğitime Geçen Hemşirelik Öğrencilerindeki Covid-19 Korkusu Ve Mesleğe Bağlılık Düzeyi: Kesitsel Bir Çalışma

### ÖZET

**Amaç:** Yeni koronavirüs hastalığı 2019 (COVID-19) pandemisi sürecinde hemşirelik bölümlerinde dersler online olarak verilmeye başlanmış ve klinik uygulamalara ara verilmiştir. COVID-19 vakalarındaki düşüşle birlikte online eğitimden yüz yüze eğitime geçiş kararı alınmıştır. Bu araştırma, online eğitimden yüz yüze eğitime geçen hemşirelik öğrencilerindeki COVID-19 korkusu ve mesleğe bağlılık düzeyini belirlemek amacıyla yapılmıştır.

**Yöntem:** Tanımlayıcı ve kesitsel tipteki bu araştırma 340 hemşirelik öğrencisi ile yürütülmüştür. Araştırma verileri online ortamda, Tanıtıcı Bilgi Formu, COVID-19 Korkusu Ölçeği (KKÖ) ve Hemşirelikte Mesleğe Bağlılık Ölçeği (HMBÖ) kullanılarak toplanmıştır.

**Bulgular:** Hemşirelik öğrencilerinin KKÖ puan ortalaması  $16.44 \pm 6.03$  bulunurken, HMBÖ puan ortalaması  $79.67 \pm 10.53$  bulunmuştur. Hemşirelik öğrencilerinin KKÖ ve HMBÖ puanları arasında istatistiksel olarak anlamlı bir ilişki olmadığı saptanmıştır ( $p > 0.05$ ).

**Sonuç:** Hemşirelik öğrencilerindeki COVID-19 korkusunun ortalamanın altında, mesleğe bağlılığın ise orta düzeyde olduğu ve COVID-19 korkusunun mesleğe bağlılığı etkilemediği saptanmıştır.

**Anahtar Kelimeler:** COVID-19, koronavirüs, hemşirelik öğrencisi, korku, mesleki bağlılık

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The novel coronavirus disease 2019 (COVID-19) was declared a pandemic by the World Health Organization in March 2020 (1). Due to the high morbidity and mortality rates of the COVID-19, governments issued public policies that included restrictions such as social distancing and self-isolation. These restrictions also affected educational institutions. Higher education institutions in Turkey switched to online education as of 23 March 2020 (2).

The transition to online education in higher education institutions impacted applied sciences the most. Nursing is one science that was adversely impacted by this transition (3,4). The transition to online courses and the interruption of clinical practices were unexpected developments for nursing students. While it was known that nursing students already experience high levels of anxiety and stress due to their nursing education, it was revealed that their stress and anxiety levels increased along with the COVID-19 pandemic (5-8). The fast spread of COVID-19, which was a development that caught many individuals and systems off guard, and the lack of information about its control and treatment also led to fear in nursing students just as all active and prospective health workers (5,8-10).

Fear is one of the psychological aspects of the COVID-19 pandemic. When fear is chronic and disproportionate, it prepares the groundwork for the development of a variety of psychological problems (11-14). The fear felt by nursing students and the uncertainty of the forthcoming process gave rise to worries about their professional roles and a decrease in the perceived quality of learning by restricting the learning opportunities of nursing students (3,9). Besides, by leading to uncertainty about one's professional future, fear can lower professional commitment and positive attitudes toward their profession (3,15,16).

Nursing is an occupation that requires a high level of professional commitment. Professional commitment in nursing refers to the belief of a nurse in the values of the profession of nursing and their acceptance of these values, efforts for the profession, willingness to have professional self-development, and determination to carry out the profession of nursing (17). While the need for nurses continues to grow on the global level along with the COVID-19 pandemic, nursing students make up a significant part of the nursing workforce of the future. It was put forward that in this process, professional commitment becomes a determinant for nursing students to be included

in the nursing workforce (18). For this reason, it is quite important to examining the professional commitment of nursing students during the COVID-19 pandemic and associated factors.

Higher education institutions that switched to online education in Turkey on 23 March 2020 because of the COVID-19 pandemic switched back to face-to-face education as of 13 September 2021 along with the decrease in the number of COVID-19 cases. It was discerned that no study was performed in Turkey to identify the COVID-19 fear and professional commitment levels of nursing students who switched from online education to face-to-face education. As nursing students are an important resource of the nursing workforce of the future, evaluating their fears and professional commitment before their graduation should be a priority. This study was conducted to determine the COVID-19-related fear and professional commitment levels of nursing students switching from online education to face-to-face education, answers to the following questions were sought:

- What are the COVID-19 fear levels of nursing students who switch from online education to face-to-face education and influencing factors?
- What are the professional commitment levels of nursing students switching from online education to face-to-face education and influencing factors?
- Is there any relationship between the COVID-19 fear and professional commitment levels of nursing students switching from online education to face-to-face education?

## MATERIAL AND METHODS

### *Design*

This study was conducted with a descriptive cross-sectional design.

### *Population*

The population of the study consisted of 387 students studying in the nursing department of a state university in Turkey. The haphazard sampling method was used in the study. The sample comprised 340 nursing students who volunteered to participate in the study and filled out the data collection forms completely.

### Data Acquisition

The data were collected from 13 to 30 September 2021 with the survey form distributed by the researcher to the participants. The survey form included a Personal Data Form, the Fear of COVID-19 Scale (FCV-19S), and the Nursing Professional Commitment Scale (NPCS).

**Personal Data Form:** The form included seven questions related to the demographic characteristics of the participants, their professional characteristics, and their variables associated with the COVID-19 pandemic.

**FCV-19S:** FCV-19S was developed by Ahorsu et al. (19) and its validity and reliability in Turkish were tested by Bakioğlu et al. (11). The five-point Likert-type scale has 7 items. A high FCV-19S score points to a high level of fear of COVID-19.

**NPCS:** NPCS was developed Lu et al. (20) and tested for validity and reliability in Turkish by Çetinkaya et al. (21). The four-point Likert-type scale has 26 items and 3 subscales (Willingness to Make an Effort, Desire to Stay in the Profession, Belief in Goals and Values). A high NPCS score points to a high level of professional commitment.

### Data Analysis

The data were analyzed with the Statistical Package for the Social Sciences (SPSS) 20.0. The Mann-Whitney U test, the Kruskal-Wallis H test, and Spearman's correlation coefficient, as well as descriptive statistics, were used in the analyses of the data. The Shapiro-Wilk test was utilized to determine whether the data were normally distributed. The level of statistical significance was accepted as  $p < 0.05$ .

### Ethical Aspect of the Study

For conducting the study, ethical approval was obtained from the Clinical Research Ethics Committee of Amasya University (Date: 21 June 2021, No: 77). Nursing students were informed that their participation in the study was completely on a voluntary basis, and those who agreed to participate submitted an informed consent form in written format. The study was carried out in accordance with the principles of the Declaration of Helsinki.

## RESULTS

It was determined that 61.80% of the participants were aged 20 years or younger, 72.90% selected the profession

of nursing willingly, 95.60% had no chronic diseases, 54.70% could not decide whether they were willing to provide care to COVID-19 patients, and 70.00% did not lose any family member or anyone in the inner circle due to COVID-19 (Table 1).

Table 1. Descriptive characteristics (n=340)	
Descriptive characteristics	n (%)
<b>Age</b>	
20 or younger	210 (61.80)
21 or older	130 (38.20)
<b>Gender</b>	
Female	247 (72.60)
Male	91 (26.80)
<b>Class year</b>	
1	96 (28.20)
2	98 (28.80)
3	90 (26.50)
4	55 (16.20)
<b>Chose the profession of nursing willingly</b>	
Yes	248 (72.90)
No	92 (27.10)
<b>Has a chronic disease</b>	
Yes	15 (4.40)
No	325 (95.60)
<b>Is willing to provide care to COVID-19 patients</b>	
Yes	81 (23.80)
Undecided	186 (54.70)
No	73 (21.50)
<b>Has lost a family member or someone in one's inner circle due to COVID-19</b>	
Yes	102 (30.00)
No	238 (70.00)

The mean FCV-19S score of the participants was  $16.44 \pm 6.03$ , and their mean NPCS total, NPCS 'Willingness to Make an Effort' subscale, 'Desire to Stay in the Profession' subscale, and 'Belief in Goals and Values' subscale scores were identified respectively as  $79.67 \pm 10.53$ ,  $38.89 \pm 5.79$ ,  $25.16 \pm 4.51$ , and  $15.60 \pm 2.00$ . However, the mean subscale scores of the participants are not shown in a table. It was discerned that the participants had below-average levels of fear of COVID-19, and moderate professional commitment levels.

Table 2 presents the results of the comparisons of the mean FCV-19S and NPCS scores of the participants based on their descriptive characteristics. Accordingly, the FCV-19S scores of the participants differed significantly based on their age, gender, class year, status of choosing the profession of nursing willingly, and status of being willing to provide care to COVID-19 patients. In this respect, the participants who were 20 years old or younger had higher levels of fear of COVID-19 than those who were 21 years old or older, and the female participants had higher levels of fear of COVID-19 than the male participants. The participants who were first-year and second-year nursing students had higher levels of fear of COVID-19 than those who were fourth-year nursing students (Tamhane's T2 post hoc test), those who chose the profession of nursing willingly had higher levels of fear of COVID-19 than those who chose it unwillingly, and those who were unwilling to provide care to COVID-19 patients and those who were undecided had higher levels of fear of COVID-19 than those who were willing to provide care to COVID-19 patients ( $p < 0.05$ ).

In the comparisons of the mean NPCS scores of the participants based on their descriptive characteristics, it was found that there were statistically significant differences in their total NPCS scores and their NPCS 'Desire to Stay in the Profession' subscale scores based on their gender, where the female participants had higher mean NPCS total and 'Desire to Stay in the Profession' subscale scores than the male participants ( $p < 0.05$ ).

Moreover, based on their status of choosing the profession of nursing willingly, the total NPCS scores and all NPCS subscale scores of the participants varied significantly. In this context, those who chose the profession willingly had higher NPCS total and subscale mean scores than those who chose the profession unwillingly ( $p < 0.001$ ).

Furthermore, based on their statuses of being willing to provide care to COVID-19 patients, there were statistically significant differences in the mean total NPCS and all NPCS subscale scores of the participants, where the participants who were willing to provide care to COVID-19 patients had higher mean scores than those who were unwilling and those who were undecided about the matter (Tamhane's T2 post hoc test) ( $p < 0.01$ ).

Besides, the mean NPCS 'Belief in Goals and Values' subscale scores of the participants varied significantly based on whether they lost a family member or someone in their

inner circle due to COVID-19, where the participants who had lost people around them had a higher mean score than those who had not ( $p < 0.05$ ) (Table 2).

Lastly, no statistically significant relationship was found between the FCV-19S and NPCS scores of the participants ( $p > 0.05$ ) (Table 3).

## DISCUSSION

### *Fear of COVID-19*

In this study, it was discerned that nursing students who switched from online education to face-to-face education had below-average levels of fear of COVID-19. In the relevant literature, there are studies that obtained similar results (4,5,22). In the study performed by Terkeş and Ateş (10) to compare the COVID-19 fear levels of nursing students who received online and face-to-face education, it was found that students generally had moderate levels of fear of COVID-19, and those students who had face-to-face education had higher levels of fear of COVID-19. There are also other studies that identified moderate levels of fear of COVID-19 among students (12,23,24). On the other hand, Emory et al. (3) found that students had low levels of fear of COVID-19. Lovrić et al. (25) reported that students felt mild levels of fear during face-to-face education, but they had more severe fear in the clinical environment. There are also studies that identified high levels of fear of COVID-19 among students (8,9). The result of our study may have been affected by the start of the normalization process along with the fall in COVID-19 cases.

Besides, in this study, it was discerned that the participants who were 20 years old or younger had higher levels of COVID-19 fear than those who were 21 years old or older. Likewise, Beisland et al. (12) found that those who were at younger ages had higher levels of COVID-19 fear, and Değirmen et al. (26) reported that COVID-19 phobia levels increased as age decreased. In the relevant literature, there are also studies which indicated that the levels of fear of COVID-19 increased along with an increase in age (9,16). The result of this study may have been affected by the fact that the participants who were at younger ages were in relatively early years of their nursing education. In this sense, it is considered that the participants who were recently enrolled in the department of nursing had inadequate knowledge and skills about the profession, and hence, this situation may have led to fear.

**Table 2. Comparisons of mean FCV-19S and NPSC scores based on descriptive characteristics (n=340)**

Descriptive characteristics	FCV-19S Median (Min-Max)	NPSC			
		Willingness to Make an Effort	Desire to Stay in the Profession	Belief in Goals and Values	Overall NPSC
		Median (Min-Max)	Median (Min-Max)	Median (Min-Max)	Median (Min-Max)
<b>Age</b>					
20 or younger	17.00 (7.00-35.00)	38.00 (22.00-52.00)	25.00 (14.00-32.00)	15.00 (8.00-19.00)	79.00 (46.00-99.00)
21 or older	15.00 (7.00-31.00)	39.00 (16.00-50.00)	26.00 (8.00-32.00)	16.00 (8.00-20.00)	82.00 (35.00-102.00)
Statistical significance	<b>p= 0.004*</b>	p= 0.146	p= 0.315	p= 0.095	p= 0.142
<b>Gender</b>					
Female	18.00 (7.00-35.00)	39.00 (21.00-52.00)	26.00 (14.00-32.00)	16.00 (8.00-20.00)	81.00 (49.00-102.00)
Male	12.00 (7.00-35.00)	38.00 (16.00-50.00)	25.00 (8.00-32.00)	15.00 (8.00-20.00)	78.00 (35.00-96.00)
Statistical significance	<b>p= 0.000*</b>	p= 0.070	<b>p= 0.022*</b>	p= 0.078	<b>p= 0.022*</b>
<b>Class year</b>					
1 <sup>a</sup>	17.50 (7.00-35.00)	38.00 (22.00-52.00)	26.00 (14.00-32.00)	15.00 (8.00-20.00)	80.00 (46.00-99.00)
2 <sup>b</sup>	17.00 (7.00-35.00)	39.00 (22.00-51.00)	26.00 (14.00-32.00)	15.00 (11.00-19.00)	81.00 (54.00-99.00)
3 <sup>c</sup>	17.00 (7.00-31.00)	38.50 (25.00-50.00)	25.00 (14.00-32.00)	15.50 (10.00-20.00)	80.00 (54.00-102.00)
4 <sup>d</sup>	13.00 (7.00-29.00)	40.00 (16.00-50.00)	25.00 (8.00-32.00)	15.00 (8.00-19.00)	79.00 (35.00-100.00)
Statistical significance	<b>p= 0.037*</b> a>d b>d	p= 0.366	p= 0.869	p= 0.873	p= 0.905
<b>Chose the profession of nursing willingly</b>					
Yes	17.00 (7.00-32.00)	40.00 (25.00-52.00)	27.00 (13.00-32.00)	16.00 (8.00-20.00)	83.00 (58.00-102.00)
No	14.00 (7.00-35.00)	35.00 (16.00-50.00)	22.00 (8.00-32.00)	14.00 (8.00-19.00)	71.00 (35.00-95.00)
Statistical significance	<b>p= 0.040*</b>	<b>p= 0.000*</b>	<b>p= 0.000*</b>	<b>p= 0.000*</b>	<b>p= 0.000*</b>
<b>Has a chronic disease</b>					
Yes	18.00 (7.00-24.00)	39.00 (35.00-50.00)	24.00 (20.00-32.00)	16.00 (14.00-19.00)	80.00 (71.00-99.00)
No	17.00 (7.00-35.00)	39.00 (16.00-52.00)	25.00 (8.00-32.00)	15.00 (8.00-20.00)	80.00 (35.00-102.00)
Statistical significance	p= 0.869	p= 0.106	p= 0.789	p= 0.365	p= 0.245
<b>Is willing to provide care to COVID-19 patients</b>					
Yes <sup>a</sup>	14.00 (7.00-32.00)	40.00 (29.00-52.00)	27.00 (13.00-32.00)	16.00 (8.00-20.00)	83.00 (60.00-102.00)
Undecided <sup>b</sup>	17.50 (7.00-32.00)	39.00 (21.00-50.00)	25.00 (14.00-32.00)	15.00 (10.00-19.00)	80.00 (49.00-100.00)
No <sup>c</sup>	17.00 (7.00-35.00)	36.00 (16.00-51.00)	24.00 (8.00-32.00)	15.00 (8.00-19.00)	75.00 (35.00-99.00)
Statistical significance	<b>p= 0.002*</b> b>a c>a	<b>p= 0.000*</b> a>b a>c	<b>p= 0.002*</b> a>b a>c	<b>p= 0.005*</b> a>b a>c	<b>p= 0.000*</b> a>b a>c
<b>Has lost a family member or someone in one's inner circle due to COVID-19</b>					
Yes	18.00 (7.00-32.00)	39.00 (22.00-50.00)	26.50 (14.00-32.00)	16.00 (9.00-20.00)	83.00 (46.00-99.00)
No	16.00 (7.00-35.00)	39.00 (16.00-52.00)	25.00 (8.00-32.00)	15.00 (8.00-20.00)	79.00 (35.00-102.00)
Statistical significance	p= 0.089	p= 0.854	p= 0.054	<b>p= 0.027*</b>	p= 0.103

\*p<0.05  
Abbreviations: NPSC, the Nursing Professional Commitment Scale; FCV-19S, the Fear of COVID-19 Scale

**Table 3. Relationship between the fear of COVID-19 and professional commitment**

Variable	FCV-19S	NPSC			
		Willingness to Make an Effort	Desire to Stay in the Profession	Belief in Goals and Values	Overall NPSC
r		0.060	-0.019	0.173	0.023
p		0.271	0.722	0.111	0.674

Abbreviations: NPSC, the Nursing Professional Commitment Scale; FCV-19S, the Fear of COVID-19 Scale; r, Spearman's correlation coefficient

Moreover, in this study, the female participants had higher levels of COVID-19 fear than the male participants, and this result was in support of the relevant literature (5,9,16,22). In this context, it is thought that women paid more importance to their inner experiences and perceptions and were fragile/sensitive, and this situation, in turn, made them more defenseless against psychological problems (27).

Next, in this study, it was observed that the participants who were first-year and second-year nursing students had higher levels of COVID-19 fear than those who were fourth-year students. Oducado et al. (8) stated that first-year students had higher fear levels than those in other class years. Turan (28) reported that coronaphobia decreased as the class year of students increased. Beisland et al. (12) found that the fear of COVID-19 was associated with years spent at school and disengagement from clinical practices during the COVID-19 pandemic period. Lin et al. (16) stated that third-year and fourth-year students reported higher levels of fear than first-year students. The result of our study may have been affected by the fact that fourth-year students had experienced the school and clinical settings before and had more professional experience, while first-year and second-year students arrived at the school settings recently and were not prepared well for these settings and professional practices yet.

Furthermore, in this study, the participants who chose the profession of nursing willingly were determined to have higher levels of COVID-19 fear than those who chose it unwillingly. Turan (28) found that students who had high academic achievement levels and career goals for the future had higher levels of coronaphobia, and professional inadequacy was one of the most frequently experienced anxieties. Because of spending a significant part of the education and training process in an online format, students who chose the profession of nursing willingly and had future career goals in the profession of nursing may have felt inadequate, and accordingly, experienced more fear.

Moreover, the participants of this study who were unwilling to provide care to COVID-19 patients and those who were undecided about this issue had higher levels of COVID-19 fear than those who were willing to provide care to COVID-19 patients. Alsolais et al. (23) reported that perceiving a high infection risk increased the fear of COVID-19. Nehir and Tavşanlı (24) discerned that most students were unwilling to provide care to COVID-19

patients. The result of this study may have been affected by the perceived risk of infection in nursing students.

### *Professional Commitment*

In this study, the participants exhibited moderate levels of professional commitment, and the female participants, the participants who chose the profession willingly, and those who were willing to provide care to COVID-19 patients exhibited higher levels of professional commitment than those in other corresponding groups. In the study carried out by Lin et al. (16), it was found that nearly half of students did not want to continue to attend school and did not think of working as nurses in the future, while they also had moderate levels of turnover intention. In the relevant literature, there are other studies which showed that during the COVID-19 pandemic period, nursing students wanted to quit the profession (29,30). The result of this study may have been due to the negative experiences of health workers during the COVID-19 pandemic.

Finally, in this study, the fear of COVID-19 among the participants was not associated with their professional commitment levels. In the relevant literature, it was reported that the fear of COVID-19 increased turnover intention (16,29). Çalıřkan et al. (15) stated that the fear of COVID-19 reduced the prevalence of positive attitudes toward the profession of nursing. The result of this study may have been associated with the decrease in the number of cases and the transition to the normalization process.

### *Limitations*

The strength of this study is the fact that the rate of participation in the study was 87.85% (340 students from the population), while its limitation was that it was carried out in a single center.

## **CONCLUSION**

It was found that nursing students had below-average levels of fear of COVID-19 and moderate levels of professional commitment, whereas the fear of COVID-19 did not affect professional commitment. Additionally, it was determined that the fear of COVID-19 was higher in the participants who were 20 years old or younger, the female participants, the participants who were first-year and second-year nursing students compared to fourth-year students, those who choose the profession willingly, and those who were undecided about providing or unwilling to provide care to COVID-19 patients. Professional commitment levels were seen to be higher in the female participants, the participants who chose the profession

willingly, and those who were willing to provide care to COVID-19 patients. This study is important because it is the first study to determine the COVID-19 fear and professional commitment levels of nursing students who switched from online education to face-to-face education in Turkey. There is a need for more studies to identify the fear of COVID-19, professional commitment, and associated factors in nursing students who form a crucial resource of the nursing workforce of the future and alleviate their fears of COVID-19.

## DECLARATIONS

### Funding

'Not applicable.'

### Conflict of Interest

'Not applicable.'

### Ethics Approval

The study was approved by the Clinical Research Ethics Committee of Amasya University (Date: 21 June 2021, No: 77).

### Availability of Data and Material (Data Transparency)

'Not applicable.'

### Author Contributions

MÇY: Design, MÇY: Literature review, MÇY: Data collection and interpretation, MÇY: Statistical analysis and reporting, MÇY: Writing, MÇY: Critical reading.

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