

The Effect of Covid-19 Fear and Death Anxiety on the Professional Values of Intern Nursing Students Before Clinical Practices

İntörn Hemşirelik Öğrencilerinin Klinik Uygulama Öncesi Yaşadıkları Covid-19 Korku Düzeyi ve Ölüm Anksiyetesinin Profesyonel Değerlere Etkisi

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ABSTRACT

Aim: The study was conducted to determine the effect of COVID-19 fear and death anxiety on intern nursing students before they enter clinical practice, focusing on changes in their professional values.

Method: The population of this descriptive and cross-sectional study included a total of 218 intern nursing students from a university in Turkey, the sample of the study consisted of 215, which is among the top five provinces where the COVID-19 pandemic is felt most intense in Turkey.

Results: The students had moderate COVID-19 fear and death anxiety and good professional values. A positive correlation was found between the level of the COVID-19 Fear Scale and both the Abdel-Khalek Death Anxiety Scale and the safety sub-dimension of professional values. All of the sub-dimensions of professional values and fear of COVID-19 median were found to be higher in the students who desire to clinical practice. The factors affecting the Death Anxiety Scale included caring for bedridden patients. Further, fear of COVID-19 factors affecting was the desire for clinical practice negatively.

Conclusion: During the pandemic process, it was determined COVID-19 fear and death anxiety. It was determined that the professional values of the students were not affected and those with high human dignity, responsibility, and safety values wanted to start clinical practice. So, it is thought that psychological counseling and pieces of training for the development of professional values will be beneficial in the prevention of leaving the profession or in the development of values during the pandemic process.

Keywords: COVID-19 anxiety, Intern nurse, Fear of death, Professional values, Clinical practice

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ÖZ

Amaç: Bu çalışma intörn hemşirelik öğrencilerinin klinik uygulama öncesi yaşadıkları COVID-19 korku düzeyi ve ölüm anksiyetesinin profesyonel değerlere etkisini belirlemek amacı ile yapıldı.

Yöntem: Bu tanımlayıcı ve kesitsel tipteki çalışmanın evrenini, Türkiye’de Covid-19 salgının en yoğun yaşandığı ilk beş il arasında yer alan bir üniversitenin hemşirelik bölümünde öğrenim gören 218 intörn öğrenci, örneklemini de 215 (%98.6) öğrenci oluşturdu.

Results: Öğrencilerin COVID-19 korku ve ölüm kaygıları orta ve mesleki değerleri iyi düzeydedir. COVID-19 Korkusu Ölçeği düzeyi ile hem Abdel-Khalek Ölüm Kaygısı Ölçeği ve hem de mesleki değerlerin güvenlik alt boyutu arasında pozitif ilişki bulunmuştur. Mesleki değerler ve COVID-19 korkusu alt boyutları, klinik uygulama yapmak isteyen öğrencilerde daha yüksek bulunmuştur. Yatağa bağımlı hastalara bakım verenlerde, Ölüm Kaygısı Ölçeği puanları etkilenmiştir. Ayrıca, öğrencilerde COVID-19 korkusu, klinik uygulama isteğini olumsuz yönde etkilemiştir.

Sonuç: Pandemi sürecinde, öğrencilerde COVID-19 korku ve ölüm kaygısı tespit edildi. Öğrencilerin mesleki değerlerinin etkilenmediği, insan onuru, sorumluluk ve güvenlik değerleri yüksek olanların klinik uygulamaya başlamak istedikleri saptandı. Bu nedenle, pandemi sürecinde, mesleki değerlerin geliştirilmesine yönelik psikolojik danışmanlık ve eğitimlerin meslekten ayrılmanın önlenmesinde veya değerlerin geliştirilmesinde faydalı olacağı düşünülmektedir.

Anahtar Sözcükler: COVID-19 kaygısı, İntörn hemşire, Ölüm korkusu, Mesleki değerler, Klinik uygulama

INTRODUCTION

Pandemic are one of the most significant disasters faced by humanity throughout history, deeply affecting people in medical, educational, social, psychological, cultural and economic dimensions. Although nearly two years have passed since the start of the COVID-19 pandemic, there are still uncertainties regarding patient care and treatment, as the virus has mutated in various forms and become increasingly contagious (Davidson et al., 2020, Torales J et al., 2020).

The COVID-19 pandemic has significantly affected the mental health of nurses, as well as the professional identity of both nurses and student nurses, who constitute the focus of nursing studies (Shiow-Ching, 2021). Both nurses and nursing students have shown difficulty formulating an identity of professional values during the COVID-19 pandemic. Professional values are standards accepted by practitioners and professional groups that guide professional education and practices and influence beliefs and attitudes and are thus important for members of the nursing profession to improve professional socialization, nursing care quality, decision-making ability and professional identity. Nursing education is the first step in gaining professional values (Pickles et al., 2019; Shiow-Ching, 2021, Orak & Alpar, 2012).

For nursing students who have successfully completed the first three years of vocational courses, internship practices in nursing education provide a process to gain/reinforce professional awareness and experience. The general goal of internship practices is to provide nursing students with a mastery of all cognitive, affective and behavioral skills that they learn during the undergraduate education and expected to improve after graduation (Karaöz, 2013). During the pandemic, intern nursing students witness the reality of death from COVID-19 disease and fear becoming infected themselves, which may adversely

affect their mental health. During this period, they may also experience illness-related trauma and may fear infecting their family members and being stigmatized, negatively affecting their professional perspectives and values (Ladik, 2020; Shiow-Ching, 2021). In fact, during the COVID-19 pandemic health-care workers have been declared national heroes, respected and valued by society and celebrated in the media. This can positively affect their professional values perceptions.

Studies exist about the anxiety and professional values of nursing students in the COVID-19 pandemic (Akman, Yıldırım, & Sarıkaya, 2020; Nie et al., 2021; Aslan, & Pekince, 2020). However, there are no studies on the effect of COVID-19 fear and death anxiety on the professional values of intern nursing students. It is thought that this study will contribute to the development of psychological support before clinical practice, prevention from epidemics-educational preparation, attempts to prevent alienation from the profession after graduation and the development of professional values, especially for intern nurses who are prospective nurses of the future. The study was conducted to determine the effect of COVID-19 fear and death anxiety on intern nursing students before they enter clinical practice, focusing on changes in their professional values.

Research Questions

The research questions

1. What is the COVID-19 fear level, death anxiety and professional values of intern student nurses before clinical practices?
2. Which professional values of intern students who desire or don't desire to practice have priority?
3. Does COVID-19 fear and death anxiety levels of intern nursing students before clinical practices affect their professional values?

METHOD

Study Desing

This is a descriptive and cross-sectional study.

Sample

The population of the study included a total of 218 intern nursing students from a university in Turkey, which is among the top five provinces in Turkey where the COVID-19 pandemic is most intense. The sample of the study consisted of 215 (98.6%; 215/218) intern nursing students who agreed to participate in the study. The study excluded three students whose questionnaires were incomplete and could not be reached

Data Collection

The first case of COVID-19 in Turkey was officially detected on March 10, 2020. Still, as of March 13, 2020, both theoretical and clinical practices have continued through distance education. Universities have planned for intern nursing students to practice in clinics face-to-face with patients for 32 hours per week for 14 weeks according to the 2020-2021 spring semester education and training curriculum. The study data was collected during the online internship course through e-mails and WhatsApp groups and via Google form before intern nursing students became involved in face-to-face clinical applications. The GoogleDocs data collection forms were sent online (via e-mail or WhatsApp) to nursing students between 5-9 April 2021. The whole procedure took about 10-15 minutes. No negative feedback was received from the participants.

Data Collection Tools

The data was collected using an introductory information form, which was prepared by the researcher in accordance with the relevant literature (Tural Büyük, et al., 2014; Özdelikara, et al., 2016; Bahçecioğlu, Özer, & Çiftçi, 2021; Shengxiao, et al., 2021), the Fear of COVID-19 Scale (FCS), Abdel-Khalek's Death Anxiety Scale (ASDA), and the Nurses' Professional Values Scale (NPVS).

Introductory Information Form: this form included a total of 18 questions about the participant's age, gender, their knowledge of COVID-19, the frequency with which they follow COVID-19 information, whether they or their family members have contracted COVID-19, been quarantined due to COVID-19, or been treated for COVID-19, caring condition of bedridden patients and desire to clinical practices.

Fear of COVID-19 Scale: developed by Ahorsu et al. (2020) to measure the levels of fear in individuals due to the COVID-19 pandemic, the Turkish validity and reliability study of this scale was performed by Ladikli et al. (2020). The scale items were created based on a comprehensive review of expert evaluations, participant interviews and existing scales on fear. The scale has a single-factor structure consisting of seven items. This is a five-point Likert type scale, with 1 = strongly disagree and 5 = strongly agree. The internal consistency and test-retest reliability coefficients of the scale were determined as 0.82 and 0.72, respectively. The Cronbach's alpha value of the scale was determined to be 0.91 in this study.

Abdel-Khalek's Death Anxiety Scale: This Arabic Scale of Death Anxiety was developed in 2014 based on the rationale that there are specific concepts related to death and the afterlife in Muslim populations (Abdel-Khalek, 2004). Sarıççek, et al. performed its Turkish validity and reliability study (2020). The Cronbach's alpha coefficients of the scale were determined to be between 0.88 and 0.93. The scale has been used in several studies conducted both in various countries (Kuwait, Syria, Lebanon, Spain, England, and the USA). It consists of 20 items. This is a five-point Likert type scale, with 1 = none to 5 = very much. The higher the scale score, the higher the anxiety level. The Cronbach's alpha value of the scale was determined to be 0.94 in this study.

Nurses' Professional Values Scale: Developed by Weis and Schank (2000) to reflect the ethical rules of the American Nurses Association and to reveal the professional values of nurses (Weis, & Schanki, 2000). The original scale consists of 44 items and five subscales. This is a five-point Likert-type scale with a higher score indicating that nurses attach more importance to professional values and ethical issues. Orak & Alpar performed the Turkish validity and reliability study of the scale (2012). The Turkish version includes 31 items, where the total scale score ranges between 31 and 155. This scale consists of five subscales, including human dignity (11 items), responsibility (7 items), action (5 items), safety (4 items) and autonomy (4 items), and is accepted as a valid and reliable measurement tool (Orak, & Alpar, 2012). Although Cronbach's alpha value of above scale was determined as 0.95, in this study it was determined as 0.98.

Statistical Analysis

The data was statistically analyzed using the SPSS (Statistical Packed for the Social Sciences) 25.0 IBM statistical program, and evaluated using descriptive statistics. The Mann Whitney U test was used to analyze the data of two groups without normal distribution, and the Kruskal Wallis test was used in the analysis of more than two groups. Tukey and Tamhane's T2 tests, two Post Hoc tests, were used to determine the source of differences between the groups. Pearson's correlation analysis was used to determine the relationship between the students' scale scores, and a multiple regression model was used to determine the factors affecting their scores. The results were evaluated taking into consideration 95% confidence interval and $p < 0.05$ error level.

Ethical considerations

Before starting the study, ethical approval (Ethic Committee of Istinje University 2021/04/02) was obtained from the university. The survey form contained the necessary explanations about the purpose and methods of the study and was sent online to intern nursing students participating in the study. The students' consent was also obtained. The study was conducted in accordance with the Declaration of Helsinki.

RESULTS

Table 1 summarizes the comparison of the FCS, ASDA and NPVS median values of the students, with some sociodemographic

characteristics. The vast majority of the students were 22 years old and younger (68.4%), female (81.9%), had chosen the nursing profession willingly (69.8%), provided care for bedridden patients (64.2%), and were not diagnosed with COVID-19 (91.6%). One quarter of them (25.1%) had another health worker in their family. In addition, the majority of the students had a family member diagnosed with COVID-19 (55.8%), and most of them suffered from disrupted sleep patterns (72.1%) and changed their dietary behaviors (74.4%) during the pandemic. The pandemic affected the academic success of almost half (47.9%). moreover, 9.3% of the students had a family member who had died due to COVID-19 and one-third (28.8%)

had been quarantined or had had family quarantined in the pandemic. The majority of the students wanted to do their job after graduation (77.7%), more than half of them desire to clinical practice (57.7%), about half of them (42.3%) did not consider practical training useful during the pandemic.

Table 2 presents the relationship between the students' FCS, ASDA and NPVS scores. Their FCS, ASDA and NPVS mean scores were 19.53 ± 7.10 , 58.58 ± 18.05 , and 133.93 ± 23.27 , respectively. Their NPVS subscales mean scores were 47.94 ± 8.39 for human dignity, 30.05 ± 5.49 for responsibility, 21.49 ± 4.12 for action, 17.0 ± 3.15 for safety and 17.43 ± 3.37 for autonomy. There was a positive moderate relationship between the

Table 1: Comparison of the FCS, ASDA and NPVS Median Values of the Students, with Some Sociodemographic Characteristics (n=215)

	n (%)	FCS Med (Min-Max)	ASDA Med (Min-Max)	NPVS Med (Min-Max)
Age Mean (\pm SD)	22.2 (\pm 1.32)			
Sex				
Female	176 (81.9)	19.5 (7-35)	60 (20-100)	144 (41-155)
Male	39 (18.1)	19 (7-34)	54 (20-94)	123 (40-155)
p		0.381*	0.007*	<0.001*
A health worker present in the family				
Yes	54 (25.1)	19.5 (7-35)	58 (20-98)	147.5 (85-155)
No	161 (74.9)	19 (7-35)	58 (20-100)	140 (40-155)
p		0.899*	0.314*	0.029*
Caring for bedridden patients (palliative care, intensive care)				
Yes	141 (65.6)	19 (7-35)	55 (20-100)	143 (41-155)
No	74 (34.4)	20 (7-35)	63 (20-98)	143 (40-155)
p		0.264*	0.018*	0.663*
COVID -19 infection				
Yes	18 (8.4)	18 (7-34)	55 (34-89)	143 (93-155)
No	197 (91.6)	20 (7-35)	58 (20-100)	143 (40-155)
p		0.824*	0.851*	0.640*
Quarantine (themselves/the family)				
Yes	62 (28.8)	20 (7-34)	56 (20-98)	135.5 (41-155)
No	153 (71.2)	19 (7-35)	58 (20-100)	144 (40-155)
p		0.650*	0.952*	0.040*
Willing to nurse after graduation				
Yes	167 (77.7)	19 (7-35)	56 (20-100)	144 (40-155)
No	13 (6.0)	21 (7-35)	77 (35-84)	128 (64-154)
Undecided	35 (16.3)	21 (7-35)	60 (25-98)	133 (93-155)
p		0.166†	0.063†	0.053†
Desire to practice nursing				
Yes	124 (57.7)	22 (7-35)	61.5 (20-98)	143 (93-155)
No	91 (42.3)	13 (7-27)	52 (20-100)	136 (41-155)
p		<0.001*	0.022*	0.162*

*Man Whitney U test; † Kruskal Walls test; M: Mean; SD: Standard Deviation; Min: Minimum; Max: Maximum.

students' FCS and ASDA mean scores ($r=0.551$; $p<0.05$) and a weak positive relationship between their FCS and NPVS safety subscale mean scores ($r=0.202$; $p<0.05$).

In the study, it was determined that there was no significant difference between FCS, ASDA and NPVS students' age, "catching" COVID-19 disturbed sleep patterns and wanting to be a nurse after graduation ($p>0.05$). However, median NPVS values were found to be higher in female students ($p<0.01$), family or self-quarantined ones ($p=0.040$), and those with a family member who is a health worker ($p=0.029$). It was determined that the median ASDA values of female students ($p=0.007$) and students caring for bedridden patients ($p=0.018$) were higher. The median values of FCS (22 versus 13; $p=0.001$) and ASDA (61.5 versus 52; $p=0.022$) of the students who desire to clinical practice were higher than the students who did not have and a significant difference was found. However, it was determined that there was no significant difference between the median NPVS values (143 versus 136; $p=0.162$) (Table 1).

Figure 1 compares the students desire to clinical practice and the median values of the NPVS sub-dimensions. The median values of students who desire to clinical practice were higher than those who did not desire human dignity (53 versus 50;

$p=0.030$), responsibility (31 versus 29; $p=0.045$) and safety (18 versus 16; $p=0.009$).

Table 3 comparison of the sub-dimensions of professional values and the medians of FCS and ASDA of students who do and do not desire clinical practice. All of the sub-dimensions of professional values and FCS median values were found to be higher in the students who desire to clinical practice compared to those who did not and statistically significant difference was found between them ($p=0.001$). Additionally, the students who desire to practice had higher priority for responsibility ($p=0.035$), safety ($p=0.012$) and autonomy ($p=0.037$) had a significant difference with ASDA medians ($p<0.05$).

Table 4 presents the factors affecting the students FCS and ASDA scores. When the factors affecting the students' FCS scores were examined, it was determined that the variable of desire to clinical practices had a negative effect of -1.403 ($\beta = -1.403$) on their FCS mean score and a positive effect of 0.208 ($\beta = 0.208$) on their ASDA mean score ($p < 0.05$). When the factors affecting the students' ASDA scores were examined, the variable of sex had a negative effect of -6.199 ($\beta = -6.199$); the variable of caring for bedridden patients had a positive effect of 4.194 ($\beta = 4.194$); and the FCS mean score had a positive

Table 2: Relationship Between the Students' FCS, ASDA and NPVS Scores

Scales		Score range	Mean±SD	Med (Min-Max)	Cronbach alpha	Correlations							
						1	2	3	4	5	6	7	8
1. FCS	7	7-35	19.53±7.10	19 (7-35)	0.911	1.00	.551†	.120	.056	.104	.075	.202†	.074
2. ASDA	20	20-100	58.58±18.05	58 (20-100)	0.944		1.00	.077	-.003	.030	.096	.196†	.090
3. NPVS	31	31-155	133.93±23.27	143 (40-155)	0.984			1.00	.929†	.900†	.927†	.782†	.872†
4. Human dignity	11	11-55	47.94±8.39	52 (18-55)	0.962				1.00	.804**	.830†	.636†	.825†
5. Responsibility	7	7-35	30.05±5.49	32 (7-35)	0.932					1.00	.804†	.685†	.752†
6. Action	5	5-25	21.49±4.12	23 (5-25)	0.933						1.00	.750†	.851†
7. Safety	4	4-20	17.0±3.15	18 (4-20)	0.878							1.00	.627†
8. Autonomy	4	4-20	17.43±3.37	19 (4-20)	0.923								1.00

* $p<0.05$; † $p<0.001$; Spearman's correlation test; **M**: Mean; **SD**: Standard Deviation; **Min**: Minimum; **Max**: Maximum.



Figure 1: Comparison of students' desires to practice and the median values of the sub-dimensions of the NPVS.

Table 3: Comparison of Students' Desire to Practice Nursing and Sub-Dimensions of Professional Values, Medians from FCS and ASDA (n=215)

Sub-dimensions of NPVS	FCS		p	ASDA		p
	Desire to practice n (%)	Not desire to practice n (%)		Desire to practice n (%)	Not desire to practice n (%)	
	Med (Min-Maks) n=124	Med (Min-Maks) n=91		Med (Min-Maks) n=124	Med (Min-Maks) n=91	
Human dignity						
≤52	52 (24.1) 20.5 (7-35)	29 (13.5) 19.0 (7-32)	0.172	29 (13.4) 60.0 (20-92)	52 (24.1) 51.0 (22-100)	0.013
52<	72 (33.5) 21.0 (7-35)	62 (28.9) 17.0 (7-35)	0.001*	72 (33.5) 59.0 (20-94)	62 (28.9) 54.0 (20-98)	0.299
Responsibility						
≤32	62 (28.8) 19.0 (7-35)	33 (15.3) 19.0 (10-29)	0.162	62 (28.8) 59.0 (20-94)	33 (71.2) 55.0 (30-100)	0.354
32<	62 (28.8) 23.0 (7-35)	58 (27.1) 17.0 (7-35)	0.001*	62 (28.8) 65.0 (25-98)	58 (27.1) 53.5 (20-98)	0.035
Action						
≤23	55 (25.5) 19.0 (7-35)	31 (14.4) 20.0 (7-32)	0.850	55 (25.5) 60.0 (20-94)	31 (14.4) 55.0 (22-100)	0.276
23<	69 (32.0) 23.0 (7-35)	60 (28.1) 16.0 (7-35)	<0.001*	69 (32.0) 64.0 (25-98)	60 (28.1) 53.5 (20-98)	0.069
Safety						
≤18	65 (21.5) 18.0 (7-35)	34 (15.8) 18.0 (7-33)	0.136	65 (21.5) 56.0 (20-94)	34 (15.8) 55.0 (21-100)	0.434
18<	59 (27.4) 23.0 (7-35)	57 (35.3) 17.0 (7-35)	<0.001*	59 (27.4) 66.0 (30-98)	57 (35.3) 54.0 (20-98)	0.012
Autonomy						
≤19	50 (23.2) 19.0 (7-35)	29 (13.4) 19.0 (7-32)	0.593	50 (23.2) 59.0 (20-94)	29 (13.4) 55.0 (21-100)	0.434
19<	74 (34.4) 22.5 (7-35)	62 (29.0) 17.0 (7-35)	<0.001*	74 (34.4) 65 (25-98)	62 (29.0) 52.5 (20-98)	0.037

* $p < 0.001$, Mann Whitney U test; Median values were the basis for determining the sub-dimensions of professional values as low or high.

effect of 1.375 ($\beta = 1.375$) on their ASDA mean score ($p < 0.05$). In addition, examination of the factors affecting the students' NPVS score demonstrated that the presence of healthcare workers in the family had a positive effect of 1.017 ($\beta = 1.017$) on their NPVS mean score ($p < 0.05$).

DISCUSSION

Professional values are important to establish nursing professional standards, to increase professional socialization and to provide quality nursing care services (Altun, 2002). There is a need to equip qualified nursing students with adequate knowledge and skills to elevate the nursing profession to a more professional level (Fowler & Wholeben, 2020). Professional attitudes and values are important for intern nursing students to carry forward into their profession after graduation, especially

in crises such as pandemics, earthquakes and wars (Bogossian, McKenna & Levett-Jones, 2020). The COVID-19 pandemic may have had several negative effects on student nurses, including fear, lack of self-confidence, despair, and doubt about their choice of profession (Fowler & Wholeben, 2020). Karadağ, et al., (2016) conducted a study with a total of 1.474 intern students and found that their professional attitudes were above the average. İbrahimoglu et al. (2020) also determined students' professional values slightly above the average, that is, at a good level. The present study found that the participating intern nursing students had a good level of professional values in general, which correlates with the results of studies conducted before the COVID-19 pandemic. Although there has been no study about the professional values of intern nursing students during the COVID-19 pandemic, there are studies

Table 4: Factors Affecting the Students' FCS, NPVS and ASDA Scores

Model	Non-standardized coefficients		Standardized coefficients	t	p
	B	Std. Error	Beta		
Outcome: FCS					
R=0.615, R ² =0.378, Adjusted R ² =0.363, F=25.422, p<0.001, Durbin-Watson=1.953, p<0.05.					
(Constant)	7.503	2.910		2.578	0.011
Desire to practice	-1.403	0.460	-0.173	-3.050	0.003
ASDA	0.208	0.002	0.528	9.345	0.001
Safety subscale	0.216	0.128	0.096	1.685	0.094
Outcome: ASDA					
R=0.606; R ² =0.367; Adjusted R ² =0.352; F=24.245; p<0.001; Durbin-Watson=2.127, *p<0.05					
(Constant)	27.569	8.012		3.441	0.001
Sex	-6.199	2.693	-0.133	-2.302	0.022
Caring for bedridden patients	4.194	2.116	0.111	1.982	0.049
Desire to practice	-0.099	1.174	-0.005	-0.084	0.933
FCS	1.375	0.148	0.541	9.307	0.001
Safety subscale	0.354	0.340	0.062	1.043	0.298
Outcome: NPVS					
(Constant)	-1.792	0.738		-2.427	0.016
R=0.999; R ² =0.998; Adjusted R ² =0.998; F=12756,441 p<0.001; Durbin-Watson=2.146					
Sex	-0.284	0.212	-0.005	-1.340	0.182
Having a health workers in the family	1.017	0.183	0.019	5.559	<0.001
	0.142	0.107	0.005	1.336	0.183

Multiple regression analysis used; **Std.Error:** Standard Error; p < 0.05. * < p 0.05; ** < p 0.001.

reporting an increase in professional satisfaction, intention to leave the nursing profession and professional values in nurses (Ruiz-Fernández et al., 2020; Zandian, et al., 2021). The fact that the professional values of the intern nursing students surpassed expectations during the COVID-19 pandemic and that intern nursing students wanted to continue to pursue their profession may be due to the spiritual strength/values of nursing to help patients and relieve pain, and the dignity and value associated with public perception of nurses as heroes in the pandemic.

Professional values stem from individual values and are shaped by professional ethics. In this context, socio-demographic characteristics (age, sex, marital status, etc.), occupational specifics (specialization, seniority, etc.), individual experiences, attitudes and relationships advance professional values (Altun, 2002; Pickles, Lacey, & King 2019). The present study determined that the median values of the human dignity, responsibility and safety sub-dimensions of the students who desire to clinical practice were higher and more significant, but there was a positive relationship with FCS and ASDA, and a weak relationship with the safety sub-dimension of professional values. Human dignity has shown that nurses tend to value and respect the privacy rights of individuals, regardless of their background. It has been suggested that nurses should own this value (Altun,

2002). One study found that student nurses for whom human dignity is a priority perceive their self-esteem levels and problem-solving skills be high (Altun, 2000). Another study found that nurses with this priority perceived their emotional level to be low and their personal accomplishment level to be high (Altun, 2002). That half of the students in the present study wanted to gain their professional competence is thought-provoking. It is encouraging and optimistic for the future and prestige of the profession and the training of new nurses who will improve the quality of patient care that the students who desire to go into practice give more priority to the values of human dignity, responsibility and safety.

Although there are studies suggesting that female students have higher professional values than male ones (Karadağ et al., 2016; Bahcecioglu, Ozer & Ciftci, 2021), there are studies reporting that sex does not affect professional values (Bang et al., 2011). Although the result of this study supports the studies in the literature, the higher spiritual values, responsibility and compassion in female nursing students during the COVID-19 pandemic suggest that they have higher professional values. In addition, in Turkey, nursing is a profession dominated by females, though the number of male students and nurses is increasing. The lower professional values of male nursing students may be due to the low number of male nurse as role

models and the social pressure male nursing students may feel in clinical practices.

Alkaya et al. (2017) compared the professional values and career choices of nursing students in America and Turkey, and determined that those who lived in America and had more healthcare professionals in their families and made their career choice earlier; they also had higher professional values. The results of the present study are compatible with those of Alkaya et al. (2017). In this context, families/relatives may have a positive effect in reducing the intern nursing students' fear, negative attitudes and death anxiety caused by COVID-19. In the present study, the students who were quarantined or those whose families were quarantined in the COVID-19 pandemic had significantly low NPVS total scores and human dignity and action subscales mean scores. One study found that one third of 787 student nurses quarantined in Spain, Greece and Albania developed moderate depression during the pandemic (Patelarou et al., 2021). Another study also determined that mental health deteriorated, depression developed, health problems occurred, and professional concerns about the future appeared in nurse-midwifery students and their families who were quarantined for 10 days (Mechili et al., 2020). According to the results of the present study, the low human dignity and action mean scores of the intern nursing students who were quarantined in the pandemic suggest that they experienced stigma, pessimism, hopelessness, inadequacy, and helplessness.

Anxiety and fear increase pressure to succeed and affect academic performance and post-graduation plans in nursing students. Nursing education has consistently been associated with anxiety among students. In the pandemics of severe acute respiratory syndrome (SARS; 2003) and Middle East respiratory syndrome (MERS-CoV; 2016), students stated that they were unwilling to get involved in clinical practices because they considered risk of infection to be too high (Wong et al., 2004). However, though pandemics cause fear, anxiety, and spiritual fatigue in nurses and student nurses, they can offer unique opportunities for them to understand the significance of the nursing profession and the importance of helping others and to experience professional satisfaction and develop professional values (Heung et al., 2005). Shengxiao et al. (2021) conducted a study with 150 intern nursing students who cared for patients with COVID-19 in China and determined that though they had moderate COVID-19 fear, their professional identity developed and 90.7% of them wanted to become nurses after graduation. Similar results were obtained by Bahcecioglu et al. (2021), who also found that the students had good professional attitudes even with moderate anxiety levels. In this study, although the majority of the students wanted to do their job after graduation (77.7%), more than half of them desire to clinical practice (57.7%).

In addition, the desire to go into practice was found to be a factor that negatively affected the FCS level. In the present study, although the COVID-19 pandemic positively affected the development of professional attitudes in intern nursing students, it increased their anxiety levels and negatively affected their

academic success. In addition, those who considered clinical practices to be without benefit during the pandemic had higher NPVS total scale mean score, while those considered clinical practices to be risky during the pandemic had higher responsibility and safety subscales mean scores ($p<0.05$). Moreover, only the NPVS safety subscale was found to have a weak positive relationship with the FCS and ASDA scales. Finally, though the students experienced high levels of COVID-19 fear and death anxiety, their professional values remained high and they wanted to pursue their profession after graduation. This may be because they had insufficient training for COVID-19 protection methods before clinical practices or were afraid of making mistakes due to the delay in the development of their knowledge and skills resulting from their inability to practice for a year.

A pandemic increases fear, anxiety and stress levels. Past epidemics have shown that their impact on mental health can last longer and spread faster than the epidemic itself. Studies have reported that about half of the population have experienced moderate anxiety, and one third experienced severe fear and anxiety, especially death anxiety during the COVID-19 pandemic (Heung et al., 2005; Tolares et al., 2020; Labrague, 2021). Although there are no studies examining the fear of COVID-19 in students, many studies have stated that students' stress and anxiety levels increased during the COVID-19 pandemic period (Aslan & Pekince, 2020; Bahçecioglu, Özer & Çiftçi, 2021; Fowler & Wholeben, 2020); this study determined students' FCS levels to be medium, an expected finding during a pandemic period.

In our study, female intern nursing students had more death anxiety than males. Studies have shown that women constitute a higher-risk group than men in terms of death anxiety (Özdelikara et al., 2007; Erdoğan & Özkan, 2007; Ayten, 2009, Iranmanesh, 2008).

In the present study, the students who did not care for bedridden patients had higher death anxiety scores. Healthcare professionals frequently encounter death due to their working conditions, and care for dying patients in the last stages of their life. Cooper and Barnett (2005) have reported that caring for a bedridden dying patient causes anxiety in nurse students (Cooper & Barnett, 2005). Ayhan found that nurses who witnessed less deaths in a year had higher fear of death scores than nurses who witnessed many deaths (Ayhan, 2013). Iranmanesh et al. examined student nurses' attitudes towards death and found that most of the students who had witnessed more deaths were not afraid of death and considered it salvation from a bad life (Iranmanesh, Savenstedt & Abbaszadeh, 2008). This study found the students' median ASDA values to be generally moderate and relatively low for caregivers of bedridden patients, and to positively affect the death anxiety. In our study, the students who previously cared for bedridden patients were aware of the measures they could take against risky situations, and this may have lowered their death anxiety scores during the pandemic period when death events were intense.

CONCLUSION

This study determined that COVID-19 fear and death anxiety levels of intern nursing students increased during the pandemic, and that they considered clinical practices risky and without benefit during the pandemic. Despite these negative results, the students maintained a good/high level of professional values during the pandemic period, and most of them wanted to pursue their profession after graduation. The professional values of the students who were quarantined or whose families were quarantined were negatively affected in the pandemic, suggesting the risk that they would leave the nursing profession. Therefore, we recommended training student nurses in crisis management and protection from COVID-19 and providing them with professional psychological support during quarantine periods. In addition, providing training on professional values to both intern nursing students and nurses students work closely with in clinical practices and adopt as role models (especially during the pandemic period) is important for the development of the professional workforce.

Study Limitation

This study has some limitations. As this study was conducted with intern nursing students from a single center, its results cannot be generalized to all nursing students.

Ethics Committee Approval

Ethical approval (Ethic Committee of Istinye University 2021/04/02) was obtained from the university.

Informed Consent

Written informed consent was obtained from all students who participated in this study.

Author Contributions

Concept: Z.,E, SKŞ; **Design:** Z.,E, SKŞ; **Supervision:** Z.,E, SKŞ; **Resources:** Z.,E, SKŞ; **Materials:** Z.,E, SKŞ; **Data Collection and/or Processing:** Z.,E, SKŞ.; **Analysis and/or Interpretation:** Z.,E, SKŞ; **Literature Search:** Z.,E, SKŞ; **Writing Manuscript:** Z.,E, SKŞ.; **Critical Review:** Z.,E, SKŞ

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Conflict of Interest

The authors have no conflicts of interest to declare.

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REFERENCES

- Abdel-Khalek, AM. (2004). The Arabic scale of death anxiety (ASDA): its development, validation and results in three Arab countries, *Death Stud*, 28, 435-457.
- Ahorsu, D. K., Lin, C. Y., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020). The fear of COVID-19 Scale: development and initial validation. *Int J Ment Health Addict*, 27,1-9.
- Akman, Ö., Yildirim, D., & Sarikaya, A. (2020). The effect of COVID-19 pandemic on nursing students' anxiety levels. *IGUSABDER*,12, 379-97.
- Alkaya S. A., Yaman, Ş.,& Simones J. (2018). Professional values and career choice of nursing students. *Nursing Ethics*, 25(2), 243-252.
- Altun İ. (2002). Burnout and nurses personal and professional values. *Nursing Ethics*, 9(3), 269-78.
- Aslan, H., & Pekince, H. (2020). Nursing students' views on the COVID 19 pandemic and their perceived stress levels. *Perspect Psychiatr Care*, <https://doi.org/10.1111/ppc.12597>
- Ayhan, D. (2013). The Effect of situation and frequency of encounter with death in nursing practices on nurses' attitudes towards death. Unpublished master's thesis, Ankara, Gazi University.
- Bahçecioğlu, T.G., Özer, Z., & Çiftçi B. (2021). Analysis of anxiety levels and attitudes of nursing students toward the nursing profession during the COVID 19 pandemic. *Perspect Psychiatr Care*, 57(4), 1913-1921
- Bang K. S., Kang J. H., Jun, & M. H. (2011). Professional values in Korean undergraduate nursing students. *Nurse Educ. Today*, 31(1), 72-75.
- Bogossian, F., McKenna, L.,& Levett-Jones T. (2020). Mobilising the nursing student workforce in COVID-19: The value proposition. *Collegian*, 27(2),147-49.
- Cooper, J., Barnett, M. (2005). Aspects of caring dying patients which cause anxiety to first year student nurses. *International Journal of Palliative Nursing*, 11(8), 423-30.
- Davidson, P. M., Shattell, M., & Nolan, M. T. (2020). Does COVID-19 really call for an overhaul of nursing curricula or promoting the power, status, and representation of nursing? *Journal of Advanced Nursing*, 76(10), 2460-61.
- Fowler, K., & Wholeben, M. (2020). COVID-19: Outcomes for trauma-impacted nurses and nursing students. *Nurse Educ Today*, 93, 104525.
- Heung, Y. Y., Wrong, K., & Kwong, W. (2005). Severe acute respiratory syndrome outbreak promotes a strong sense of professional identity among nursing students. *Nurse Educ. Today*,2, 112-118.
- Ibrahimoglu, O., Mersin, S., Kilic, H. S., & Kahraman, B. B. (2020). Professional values of nursing students in Turkey. *International Journal of Caring Sciences*,13(2), 878-884.
- Iranmanesh, S., Savenstedt, S., & Abbaszadeh, A. (2008). Student nurses' attitudes towards death and dying in South-east Iran. *IJPN*, 14(5), 214-20.
- Karadağ, A., Hisar, F., Çelik, B., & Baykara, Z. G. (2016). Determining professionalism in Turkish students nurses. *International Journal of Human Sciences*,13(1), 674-82.
- Karaöz, S. (2013). General overview of clinical evaluation in nursing education: challenges and recommendations *DEUHYOED*, 6(3),149-58.
- Ladikli, N., Bahadır, E., Yumuşak, F. N., Akkuzu, H., Karaman, G., & Türkkan, Z. (2020). The reliability and validity of Turkish version of coronavirus anxiety scale. *Int J Soc Sci*, 3(2), 71-80.
- Labrague, L. J. (2021). Resilience as a mediator in the relationship between stress-associated with the Covid-19 pandemic, life satisfaction, and psychological well-being in student nurses: A cross-sectional study. *Nurse Educ Pract.*, doi: 10.1016/j.nepr.2021.103182.

- Mechili, E. A., Saliyaj, A., Kamberi, F., Girvalaki, C., Peto, E., Patelarou, A. E., & Patelarou, E. (2020). Is the mental health of young students and their family members affected during the quarantine period? Evidence from the COVID19 pandemic Albania. *J Psychiatr Ment Health Nurs*, doi: 10.1111/jpm.12672
- Nie, S., Sun, C., Wang, L., & Wang, X. (2021). The Professional identity of nursing students and their intention to leave the nursing profession during the coronavirus disease (COVID-19) pandemic. *Nurs Res.*, doi: 10.1097/jnr.0000000000000424
- Orak Sahin, N., & Ecevit, Alpar, Ş. (2012). Validity and reliability of the nurses' professional values scale's Turkish version. *MÜSBED*, 2, 22-31.
- Özdelikara, A., Ağaçdiken, S., Mumcu, Boğa N., & Şahin, D. (2016). Death anxiety in student nurse. *Ondokuz Mayıs University Journal of Health Sciences*, 1(1), 117-32.
- Pappa, S., Ntella, V., Giannakas, T., Giannakoulis, V. G., Papoutsis, E., & Katsaounou, F. (2020). Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. *Brain, Behavior, and Immunity*, 88, 901-07.
- Patelarou, A., Mechili, E. A., Galanis, P., Zografakis-Sfakianakis, M., Konstantinidis, T., Saliyaj, A., & Patelarou, E. (2021). Nursing students, mental health status during COVID-19 quarantine: evidence from three European countries. *Journal of Mental Health*, 30 (2), 164-169.
- Pickles, D., Lacey, SD., & King, L. (2019). Conflict between nursing student's personal beliefs and professional nursing values. *Nurs Ethics*, 26(4),1087-1100.
- Ruiz Fernández, M. D., Ramos Pichardo, J. D., Ibáñez Masero, O., Cabrera Troya, J., Carmona Rega, M. I., & Ortega Galán, Á. M. (2020). Compassion fatigue, burnout, compassion satisfaction and perceived stress in healthcare professionals during the COVID19 health crisis in Spain. *Journal of Clinical Nursing*, 29(21), 4321-4330.
- Sarıçiçek, A. A., Gülseren, Ş., Özyil, Öztürk, S., & Özen, Ç. (2015). Reliability and validity of the Turkish version of Abdel-Khalek's death anxiety scale among college students. *Arch Neuropsychiatr*, 52, 371-75.
- Shiow-Ching, S. H. U. N. (2021). COVID-19 pandemic: The challenges to the professional identity of nurses and nursing education. *Journal of Nursing Research*, 29(2), e138.
- Torales, J, O'Higgins, M., & Castaldelli-Maia, J. M. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *Int J Social Psychiatry*, 66(4), 317-20.
- Tural, Büyük E., Rızalar, S., & Sezgin, S. (2014). Opinions and suggestions of nurses about internship. *Balıkesir Health Sciences Journal*, 3(3), 135-40.
- Turale, S., Meechamnan, C., & Kunaviktikul, W. (2020). Challenging times: ethics, nursing and the COVID-19 pandemic. *International Nursing Review*, 67(2), 164-67.
- Weis, D., Schanki MJ. (2000). An Instrument to measure professional nursing values. *J Nurs Scholarsh*, 32(2), 201-04.
- Wong, J. G., Cheung, E. P., Cheung, V., Cheung, C., Chan, M. T., Chua, S. E., et al. (2004). Psychological responses to the SARS outbreak in healthcare students in Hong Kong. *Medical Teacher*, 26(7), 657-59.
- World Health Organization, Key messages and actions for COVID-19 prevention and control in schools. (2021). Retrieved from https://www.who.int/docs/default-source/coronaviruse/key-messages-and-actions-for-COVID-19-prevention-and-control-in-schools-march-2020.pdf?sfvrsn=baf81d52_4
- Zandian, H., Alipouri-Sakha, M., Nasiri, E., & Zahirian Moghadam, T. (2021). Nursing work intention, stress, and professionalism in response to the COVID-19 outbreak in Iran: A cross-sectional study. *Work*, 68(4), 969-79.