

## Original Article

## The Effect of Fear of Covid-19 on Nursing Students' Attitudes Towards Death and Caring for Dying Patients

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### Abstract

**Background:** Death is an abstract concept that extends over life. Although it is a natural part of life, people have difficulty coming to terms with it.

**Objective:** This study was investigated the effect of fear of COVID-19 on nursing students' attitudes towards death and the care of dying patients.

**Results:** The study is descriptive and cross-sectional design. The sample consisted of 250 nursing students from two universities in Turkey. The data were collected using Demographic Characteristics Questionnaire, Fear of COVID-19 Scale (FCV-19S), the Death Attitude Profile (DAP) and Frommelt Attitude Toward the Care of the Dying Scale (FATCOD). **Conclusion:** Female students have more fear of COVID-19 than male students. Students with a high fear of COVID-19 have more positive attitudes towards death and caring for the dying individual. While it was determined that the COVID-19 pandemic affected nursing students in many ways, it was concluded that the fear of COVID-19 had an effect on attitudes of nursing students related to end-of-life care and death.

**Key words:** COVID-19, nursing student, death, care, death attitude

### Introduction

Pandemics and epidemics are global health problems that cause the death of millions of people and socio-economic disruptions (Fernandez et al., 2020). The COVID-19 pandemic has turned into an unprecedented global health crisis, with the number of infections and deaths increasing alarmingly in a matter of weeks (Collado-Boira et al., 2020). Administrations worldwide have introduced numerous preventive measures, such as social distancing, border closures, shift to distance learning, suspension of flights, lockdowns, quarantine, canceling of public events, and restrictions of gatherings. However, these measures have not been fully effective in

preventing the spread of the virus and slowing down the death toll (Collado-Boira et al., 2020; Haider & Al-Salman, 2020). As the pandemic has affected the whole world, Turkey has also been negatively affected. The number of tests between 03 January 2022 is 2.470.813 in Turkey. In the same period, the number of active cases was determined as 133.597 (saglik.gov.tr, 2022). There are a total of 9.136.565 laboratory-confirmed COVID-19 patients in Turkey, and a total of 80.053 deaths due to COVID-19 have been reported. The death rate for deaths laboratory-confirmed COVID-19 patients is 0.88% (Ministry of Health of Turkey COVID-19 Information Platform, 2022). This rate has

become a distressing and difficult situation for people experiencing the pandemic.

With the COVID-19 pandemic, the whole society has been shaken by unexpected and sudden deaths. Symptoms of COVID-19 infection can be mild, moderate or severe. Severe respiratory tract infection (severe pneumonia), Acute Respiratory Distress Syndrome [ARDS], sepsis, septic shock, myocarditis, arrhythmia, cardiogenic shock, and multi-organ failure can be seen in severe patients (Murthy et al., 2020). Therefore, the follow-up of severe patients should be done in intensive care units. According to the data of the World Health Organization (WHO), the rate of COVID-19 patients who need to be hospitalized in intensive care is 5%. Intensive care units have become the most important units in the COVID 19 pandemic (WHO, 2020). Palliative care is performed by home care systems in developed countries. However, in Turkey, which is a developing country, palliative care and services are not as common as in developed countries. Therefore, patients are cared for in the intensive care units of acute care centers (Turkish Society of Medical and Surgical Intensive Care Medicine, 2016). Nurses are the most frequent witnesses of the death process among health personnel during the pandemic period. Especially intensive care nurses undertake more duties in end-of-life care (EOLC) (Paul et al., 2019; Peker et al., 2021). Intensive care nurses need to have positive end-of-life care values and behaviors in order to provide good end-of-life care services. In addition, attitudes, values and beliefs towards death are also important (Zomorodi & Lynn, 2010).

Death is an abstract concept that extends over life. Although it is a natural part of life, people have difficulty coming to terms with it. They generally think of it as something scary, undesirable, and unequivocally negative (Celik, 2019; Lowey, 2015). Although it is inevitable, people avoid talking about it because it is a taboo subject too morbid to be discussed openly, resulting in more uncertainty and fear (Hong et al., 2018). People who deal with death all the time develop an attitude towards it (Celik, 2019). Death attitude refers to one's attitude towards

one's own or someone else's death. In other words, it is an evaluative and relatively stable psychological disposition that one holds as a response to death (Yin et al., 2020).

Nurses' attitudes towards the care of dying patients determine the quality of the care they provide (Mastroianni et al., 2015). Although they are confronted with death perhaps more than any other group working within the health care field, they still have a hard time coming to terms with it, resulting in poor performance and self-doubt about their competence. Therefore, we should, first of all, determine all healthcare professionals' attitudes towards death to help them overcome their fear and develop positive attitudes towards the care of dying patients (Machado et al., 2019).

Nurses are expected to talk about death, understand how their dying patients might be feeling, and meet their needs (Celik, 2019). Education is an effective way to develop knowledge and attitudes towards EOLC (Zomorodi & Lynn, 2010). Nursing students have anxiety and fears about death and dying, and they have difficulty in coping with these feelings. It is also reported that they feel unprepared to take on the care of dying individuals (Bilge et al., 2013; Ustundag et al., 2018). Providing life EOLC training to nursing students is a part of nursing education. However, as well as keeping a patient alive, providing EOLC can cause dilemmas in students and cause them to experience different emotions and thoughts (Bilge et al., 2013).

In studies conducted before the COVID-19 pandemic, it was determined that nursing students attach great importance to the care of dying patients and believe in the necessity of being with patients during the death process. In addition, the importance of applying nursing roles in end-of-life care was expressed (Chow et al., 2014; Gillan et al., 2014; Paul et al., 2019). Grubb and Arthur found that nursing students who prepared a dead body and received hands-on training in hospice or palliative care had more positive attitudes towards the care of dying patients. There are numerous reports of educational developments in the fields of palliative care and EOLC (Grubb & Arthur, 2016).

However, undergraduate education contains inconsistencies, making graduate nurses feel ill-prepared (Heath et al., 2021). Besides, we know very little about how nursing students perceive death and how it affects them personally and professionally.

The nursing students of today will become the nurses of tomorrow and nursing students will play a critical role in care in the future. Therefore, their perceptions of death affect what kind of care they provide to their dying patients and their family members (Gillan, et al., 2021). Helping patients and their families to concede death and providing end-of-life care are among the important roles of nurses. One of the roles of nurses is to manage end-of-life care. In this process, the nurse's inability to face death may create conflicts and this may hinder clinical care. Therefore, this study investigated the effect of fear of COVID-19 on nursing students' attitudes towards death and the care of dying patients.

### **Research Question**

Does COVID-19 fear affect the attitudes of nursing students towards death and caring for the dying individual?

### **Methods**

**Study design:** This study was conducted with nursing students in undergraduate nursing schools. The study is descriptive and cross-sectional design.

**Setting and samples:** This descriptive and cross-sectional study was conducted between May and June 2021. A total of 320 nursing students, 176 students in one of the two universities included in the study and 144 in the other, constituted the population of the study. Since 20 students had missing data in the study, 50 students were not included because they did not agree to participate in the study. The sample was calculated with the sample formula with known population. As a result of the calculation, the sample was determined as 175 people using 5% margin of error and 95% confidence interval. The sample consisted of 250 nursing students (participation rate of 78%).

**Data collection and procedure:** Data were collected online by snowball sampling method. During the data collection process, data were collected electronically, as online

education was implemented due to the COVID-19 pandemic in Turkey. A data collection form was developed using Google Forms and the data were collected electronically via the Google Docs website. Students were informed about the research purpose and procedure. A link was sent to participants and weekly reminder messages were sent to ensure participation in class WhatsApp groups. The inclusion criteria were [1] being a nursing student, [2] having Internet access, and [3] volunteering. Data collected by Google survey forms reached 100 people in the first week. The link with the questionnaire was transferred to student WhatsApp groups on a weekly basis. Survey forms reached 70 people in the second week and 60 people in the third week. At the end of one month, 270 people in total were reached. Twenty of these people were not included in the study because their data were missing.

**Variables:** The data collection form consisted of four parts. The first part consisted of four items on age, gender, family type, and income. The second part consisted of nine items on EOLC, death, and COVID -19. The third part was the Fear of COVID-19 Scale (FCV-19S). The fourth part of the data collection form was the Frommelt Attitude Toward the Care of the Dying Scale (FATCOD). The fourth part also included the Death Attitude Profile (DAP).

**Measurements and instruments:** *Fear of COVID-19 Scale (FCV-19S)*. The scale developed by Ahorsu et al. and adapted to Turkish by Satici et al. FCV-19S is used to assess the fear of COVID-19 in college students and adults. It consists of seven items scored on a five-item Likert-type scale ("1=strongly disagree," "2=disagree," "3=neither agree nor disagree," "4=agree," and "5=strongly agree"). Higher scores indicate a greater fear of COVID -19. The Turkish version of the FCV-19S has a Cronbach's alpha ( $\alpha$ ) of 0.82. FCV-19S has a Cronbach's alpha ( $\alpha$ ) of 0.85 in this study.

*Frommelt Attitude Toward the Care of the Dying Scale (FATCOD)*. The fourth part of the data collection form was the Frommelt Attitude Toward the Care of the Dying Scale (FATCOD) developed by Frommelt and adapted to Turkish by Cevik and Kav. The instrument consists of 30 items (15 positive

and 15 negative). The negative statements are reverse scored. The total score ranges from 30 to 150, with higher scores indicating more positive attitudes towards the care of dying patients. The instrument has a Cronbach's alpha of 0.73 (Cevik & Kav, 2013). FATCOD has a Cronbach's alpha ( $\alpha$ ) of 0.72 in this study.

**Death Attitude Profile (DAP).** The scale developed by Wong, Reker, and Gesser and adapted to Turkish by Isik, Fadiloglu, and Demir. The questionnaire consists of 26 items scored on a seven-point Likert-type scale (1 = strongly disagree; 2 = disagree; 3 = moderately disagree; 4 = undecided; 5 = moderately agree; 6 = agree; 7 = strongly agree). The questionnaire consists of three subscales: (1) neutral acceptance and approach acceptance ( $\alpha=0.86$ ), (2) escape acceptance ( $\alpha=0.74$ ), and (3) fear of death and death avoidance ( $\alpha = 0.76$ ). The total score ranges from 26 to 182 and Cronbach's Alpha value of 0.85. Neutral acceptance and approach acceptance; 0.72, escape acceptance; 0.73, fear of death and death avoidance; 0.79 and total DAP has a Cronbach's alpha ( $\alpha$ ); 0.73 in this study.

**Data analysis:** The data were analyzed using the Statistical Package for Social Sciences (SPSS, v. 22.0) at the significance levels of 0.05 and 0.001. The Kolmogorov-Smirnov and Shapiro-Wilk tests were used for normality testing. The results showed that the FATCOD and DAP scores were normally distributed. Number and percentage distributions were used for descriptive statistics. Independent groups t-test, one-way analysis of variance (ANOVA) and Post-Hoc (Scheffe) Tests were used to evaluate parametric variables.

**Ethical considerations:** In order to implement the research and collect data, from Selcuk University Aksehir Kadir Yallagoz Health School (E-19581359-300-58953), Necmettin Erbakan University Seydisehir Health Faculty (E-25669789-044-65996) and Selcuk University Faculty of Medicine Local Ethics Committee (E-70632468) -050.01.04-76512) permission was obtained. In addition, necessary permissions were obtained from the scale owners (via e-mail) and students who agreed to participate in the research (via the button to accept to participate in the study electronically).

## Results

### *Characteristics of Participants Regarding Fear of COVID-19 Scale (FCV-19S), Death Attitude Profile (DAP), and Frommelt Attitude Toward the Care of the Dying Scale (FATCOD)*

Participants had a mean FCV-19S, DAP, and FATCOD score of  $16.87\pm 5.23$  (min=7; max:34),  $92.28\pm 8.71$  (min=68; max:123), and  $78.63\pm 8.43$  (min=52; max:105), respectively (Table 1).

### *Results on Sociodemographic Characteristics*

Participants had a mean age of  $20.62\pm 1.44$  (min=18; max=24). Most participants were women (74%). The majority of the participants had a nuclear family (75.6%). Almost half the participants thought about their death (44.8%). The majority of the participants had lost someone they knew before (81.2%). Most of them felt sorrow-sadness (70.6%). More than half the participants knew partly enough about EOLC (54%). Half the participants wanted to provide EOLC in their clinical practice (50.8%) (Table 2).

### *The Comparison of Descriptive Characteristics and FATCOD, DAP and FCV-19S Scores*

Female participants had more positive attitudes towards death than their male counterparts ( $p<.001$ ). Male participants ( $83.14\pm 7.60$ ) had a significantly higher FATCOD score than female participants ( $77.05\pm 8.15$ ) ( $p<.001$ ). Participants who knew enough about EOLC ( $80.51\pm 8.86$ ) had a significantly higher FATCOD score than those who did not ( $72.86\pm 8.05$ ) ( $p<.001$ ). Participants who wanted to provide EOLC ( $81.42\pm 7.24$ ) had a higher FATCOD scale score than those who did not ( $75.94\pm 8.66$ ) ( $p<.001$ ). Participants who often thought about their death had a mean FCV-19S score of  $14.75\pm 5.76$ . Thoughts about death affected participants' fear of COVID-19 ( $p= .007$ ). The difference was due to the participants who responded, "from time to time" and "often" (Post-Hoc Scheffe Test) (Table 2).

**Table 1. Sociodemographic characteristics**

	<b>Mean±SD</b>
<b>Age (n=250)</b>	<b>20.62±1.44</b>
<b>Gender (n=250)</b>	<b>n(%)</b>
Female	185(74.0)
Male	65(26.0)
<b>Family type (n=250)</b>	
Extended	47(18.8)
Nuclear	189(75.6)
Broken	14(5.6)
<b>Family income (n=250)</b>	
Negative (income<expense)	48(19.2)
Neutral (income = expense)	179(71.6)
Positive (income>expense)	23(9.2)
<b>Thinking about your death (thoughts about death) (n=250)</b>	
Never	10(4.0)
Rarely	66(26.4)
From time to time	112(44.8)
Often	48(19.2)
Very often	14(5.6)

<b>Losing someone you knew (n=250)</b>	
Yes	203(81.2)
No	47(18.8)
<b>The overwhelming emotion you felt when you lost someone you knew (n=235)</b>	
Failure	1(0.5)
Anger	3(1.3)
Anxiety	5(2.1)
Helplessness	47(20.0)
Fear	5(2.1)
Sorrow-sadness	166(70.6)
Other	8(3.4)
<b>Knowing enough about EOLC (n=250)</b>	
Yes	22(8.8)
No	93(37.2)
Partly	135(54.0)
<b>Providing EOLC in your clinical practice (n=250)</b>	
Yes	30(12.0)
No	220(88.0)
<b>Willingness to provide EOLC (n=250)</b>	
Yes	127(50.8)
No	123(49.2)

<b>Having tested positive for COVID-19 before(n=250)</b>	
Yes	52(20.8)
No	198(79.2)
<b>These verity of COVID-19 symptoms (n=52)</b>	
Mild	15(28.9)
Moderate	23(44.2)
Severe	14(26.9)
<b>Losing a love done to COVID-19 (n=250)</b>	
Yes	38(15.2)
No	212(84.8)
<b>Fear of Covid-19</b>	
Fear of Covid-19 ↑ (79-105 score)	135(54.0)
Fear of Covid-19 ↓ (0-78 score)	115(46.0)

**Table 2. Scale scores**

	<b>Min.-Max.</b>	<b>Mean±SD</b>
FCV-19S TOTAL SCORE	7-34	16.87±5.23
•Neutral Acceptance and Approach Acceptance	20-61	35.85±7.13

•Escape Acceptance	13-26	20.12±2.40
•Fear of Death and Death Avoidance	27-44	36.31±3.60
DAP TOTAL SCORE	68-123	92.28±8.71
FATCOD TOTAL SCORE	52-105	78.63±8.43

Fear of COVID-19 Scale (FCV-19S), Death Attitude Profile (DAP),  
 Frommelt Attitude Toward the Care of the Dying Scale (FATCOD)

**Table 3. The comparison of descriptive characteristics and FATCOD, DAP and FCV-19S scores**

	FATCOD	DAP			FCV-19S	
	Total Score	Neutral Acceptance and Approach Acceptance Sub-Scale	Escape Acceptance Sub-Scale	Fear of Death and Death Avoidance Sub-Scale	Total Score	Total Score
<b>Age (n=250)</b>						
<b>Gender (n=250)</b>	<b>Mean±SD</b>	<b>Mean±SD</b>	<b>Mean±SD</b>	<b>Mean±SD</b>	<b>Mean±SD</b>	<b>Mean±SD</b>
Female	77.05±8.15	35.46±6.44	20.09±2.38	36.32±3.39	91.87±8.19	17.68±5.06
Male	83.14±7.60	36.95±8.76	20.22±2.48	36.29±4.17	93.46±10.02	14.57±5.04
<i>p-value *</i>	<b>&lt;0.001</b>	<i>0.211</i>	<i>0.722</i>	<i>0.963</i>	<i>0.206</i>	<b>&lt;0.001</b>
<b>Family type (n=250)</b>						
Extended	79.51±9.14	35.38±8.48	20.83±2.66	36.17±4.03	92.38±10.09	15.45±4.52
Nuclear	78.40±8.08	35.70±6.67	19.97±2.33	36.34±3.53	92.02±8.36	17.28±5.39
Broken	78.79±10.87	39.36±7.82	19.79±2.16	36.43±3.29	95.57±8.6	16.21±4.41
<i>p-value**</i>	<i>0.722</i>	<i>0.160</i>	<i>0.079</i>	<i>0.953</i>	<i>0.338</i>	<i>0.088</i>



<b>Family income (n=250)</b>						
Negative (income<expense)	78.73±8.43	37.33±7.85	20.25±2.45	36.39±3.54	93.98±8.69	16.54±5.84
Neutral (income = expense)	78.61±8.34	35.74±7.08	20.09±2.44	36.40±3.72	92.24±8.89	16.97±5.13
Positive (income>expense)	78.61±9.52	33.57±5.29	20.09±2.13	35.44±2.78	89.09±6.47	16.83±4.79
<i>p-value**</i>	0.996	0.106	0.922	0.474	0.085	0.882
<b>Thinking about your death (thoughts about death) (n=250)</b>						
Never	79.90±13.21	41.80±13.18	20.10±2.73	35.60±3.44	97.50±14.03	14.40±7.62
Rarely	78.65±7.63	35.92±6.62	19.71±2.17	34.99±3.79	90.62±8.89	17.15±4.57
From time to time	78.15±8.26	36.38±6.11	19.67±2.19	37.03±3.40	93.07±7.67	17.71±4.64
Often	79.65±8.38	34.13±7.32	21.23±2.64	36.63±3.41	91.98±8.60	14.75±5.76
Very often	78.00±10.29	32.93±8.54	21.93±2.23	36.29±3.71	91.14±10.47	17.93±6.74
<i>p-value**</i>	0.125	0.012	<0.001	0.006	0.853	0.007
<b>Losing someone you knew (n=250)</b>						
Yes	78.76±8.59	35.72±7.14	20.15±2.27	36.50±3.69	92.38±8.64	16.69±5.21
No	78.06±7.78	36.38±7.15	20.00±2.95	35.49±3.13	91.87±9.11	17.68±5.23
<i>p-value*</i>	0.720	0.569	0.696	0.082	0.609	0.240
<b>The overwhelming emotion you felt when you lost someone you knew (n=235)</b>						
Failure	93.00	60.00	21.00	42.00	123.00	7.00
Anger	65.67±0.58	41.00±6.93	18.67±1.16	38.67±1.15	98.33±4.62	9.33±2.31
Anxiety	81.00±9.62	41.80±8.29	21.00±3.08	34.00±4.64	96.80±7.26	15.60±5.55
Helplessness	80.96±8.46	35.51±7.38	20.85±2.27	36.83±4.32	93.19±9.24	16.34±5.04

Fear	78.40±9.07	35.40±9.86	20.00±2.35	35.20±2.28	90.60±11.78	19.60±6.23
Sorrow-sadness	78.12±8.42	35.43±6.84	19.87±2.29	36.12±3.52	91.42±8.52	17.16±5.23
Other	76.50±6.07	36.00±6.26	20.88±2.79	37.13±2.75	94.00±5.61	15.63±6.52
<i>p-value**</i>	<i>0.021</i>	<i>0.009</i>	<i>0.150</i>	<i>0.253</i>	<i>0.007</i>	<i>0.050</i>
<b>Knowing enough about EOLC (n=250)</b>						
Yes	80.51±8.86	34.66±7.63	20.41±2.26	35.82±3.69	90.88±8.67	17.36±4.94
No	72.86±8.05	34.59±7.61	20.09±2.29	35.77±4.39	90.46±10.85	16.19±5.02
Partly	78.29±7.75	36.88±6.57	19.93±2.52	36.74±3.37	93.55±8.22	17.26±5.39
<i>p-value**</i>	<i>&lt;0.001</i>	<i>0.047</i>	<i>0.342</i>	<i>0.125</i>	<i>0.044</i>	<i>0.287</i>
<b>Providing EOLC in your clinical practice (n=250)</b>						
Yes	79.13±8.50	36.10±7.21	20.04±2.45	36.31±3.54	92.45±8.79	17.03±4.6
No	75.00±7.01	34.00±6.37	20.73±1.98	36.37±4.09	91.10±8.10	16.85±5.32
<i>p-value*</i>	<i>0.012</i>	<i>0.131</i>	<i>0.139</i>	<i>0.930</i>	<i>0.429</i>	<i>0.857</i>
<b>Willingness to provide EOLC (n=250)</b>						
Yes	81.42±7.24	35.46±7.05	20.50±2.35	35.94±3.80	91.89±8.77	16.92±5.35
No	75.94±8.66	36.23±7.22	19.76±2.41	36.68±3.37	92.66±8.68	16.82±5.11
<i>p-value*</i>	<i>&lt;0.001</i>	<i>0.393</i>	<i>0.014</i>	<i>0.104</i>	<i>0.487</i>	<i>0.880</i>
<b>Having tested positive for COVID-19 before(n=250)</b>						
Yes	78.62±9.84	36.96±9.56	20.42±2.44	35.94±4.60	93.33±11.65	15.31±4.99
No	78.64±8.05	35.56±6.34	20.05±2.39	36.41±3.29	92.01±7.77	17.28±5.22
<i>p-value*</i>	<i>0.987</i>	<i>0.319</i>	<i>0.314</i>	<i>0.495</i>	<i>0.443</i>	<i>0.015</i>
<b>These verity of COVID-19 symptoms (n=52)</b>						
Mild	77.93±9.57	36.20±8.87	19.40±1.99	33.93±4.61	89.53±11.47	13.47±4.87

Moderate	76.56±10.49	35.57±7.87	20.87±2.74	35.83±3.79	92.26±9.10	16.65±3.49
Severe	82.71±8.27	40.07±12.44	20.79±2.19	38.29±5.03	99.14±13.98	15.07±6.66
<i>p-value**</i>	0.175	0.363	0.158	0.035	0.069	0.155
<b> Losing a love done to COVID-19 (n=250)</b>						
Yes	77.74±7.34	35.61±8.03	20.76±2.48	35.92±4.14	92.29±9.74	17.05±5.98
No	78.79±8.62	35.89±6.98	20.01±2.38	36.38±3.51	92.28±8.54	16.84±5.09
<i>p-value*</i>	0.478	0.820	0.075	0.469	0.997	0.818
<b> Fear of Covid-19</b>						
Fear of Covid-19 ↑ (79-105 score)	79.27±9.22	36.47±7.88	20.05±2.56	36.77±3.76	93.29±9.09	-
Fear of Covid-19 ↓ (0-78 score)	77.89±7.38	35.12±6.09	20.21±2.21	35.77±3.34	91.10±8.12	-
<i>p-value*</i>	0.038	0.030	0.117	0.133	0.526	-

End of Life Care (EOLC), Frommelt Attitude Toward the Care of the Dying Scale (FATCOD), Death Attitude Profile (DAP), Fear of COVID-19 Scale (FCV-19S), \*Independent groups t-test, \*\*One-Way Anova

## Discussion

Nurses should have the knowledge, skills, and understanding necessary to meet end-of-life patients' emotional and physical care needs. They should first recognize their own emotions in order to provide effective psychosocial support to patients and their family members (Yilmaz & Vermisli, 2015). Nurses who are aware of their own feelings, thoughts, and concerns about death are likely to provide better care (Ceyhan et al., 2018). Our participants had moderate attitudes towards death (Table 1). However, earlier research shows that nurses have more positive attitudes towards death (Ozer et al., 2015; Selcuk & Avci, 2015; Sonmez Benli & Yildirim, 2017; Uysal et al., 2019). At this point, the importance of interventions to improve nursing students' attitudes towards death in a positive way is understood more. Educational interventions can help students develop positive attitudes towards death (Elmelegy et al., 2016; Glover et al., 2017). Therefore, nursing educators play a crucial role in raising nurses' awareness of death and helping them develop more positive attitudes towards it.

Nurses know the concept of death; they witness the loss of life and the pain of those who experience the loss. Witnessing death in units such as emergency rooms and intensive care units is a source of stress and unrest for nurses. Similarly, nursing students may not feel competent to manage the care of dying individuals (Sanli & Iltus, 2020). In addition, death and caring for the dying patient can affect the personal and professional development of nurses and nursing students. Nursing students may experience anxiety about caring for a dying patient (Karadag, 2020). In this point, we should determine nursing students' attitudes towards the care of dying patients because they will be dealing with such patients and their family members in the future (Uysal et al., 2019). Our participants had moderate attitudes towards the care of dying patients (Table 1). Similarly, Uysal, Ceylan, and Kocal found that nursing students had moderately positive attitudes towards the care of dying patients. In other studies, nurses (Ceyhan et al., 2018) and nursing students (Karadag & Inkaya, 2018).

have more positive attitudes towards the care of dying patients, besides, nurses' attitudes towards the care of dying patients affect the quality of the care they provide (Mastroianni et al., 2015). In this respect, this study is similar to the results obtained from previous studies, and the training to be given to nursing students gains importance. Trainings on giving care to the dying patient can help to positively affect the attitudes of nursing students about death (Adesina et al., 2014; Henoeh et al., 2017). Also, training nursing students for similar conditions can help them provide quality care to dying patients (Sanli & Iltus, 2020).

The COVID 19 pandemic has affected the whole world and has affected the mental state of people (Kabasakal et al., 2021). In this study, nursing students' fear of COVID is moderate, and as the fear of Covid increases, positive attitudes towards death and caring for the dying patient increase (Table 2). There is no other study in the literature that examines the fear of COVID, the attitude towards death or the attitude towards the care of the dying patient. In this respect, it is thought that this study will make an important contribution to the literature in terms of revealing the relationship between the fear of the COVID-19 pandemic, which affects all areas of life, and the attitude towards death.

Gender can affect knowledge, attitudes, and behavior. Our results showed that male participants had more positive attitudes towards the care of dying patients than their female counterparts. On the other hand, female participants had a greater fear of COVID-19 than their male counterparts (Table 2). Research does not point to a gender difference in attitudes towards the care of dying patients (Karadag, 2020; Karadag & Inkaya, 2018; Koc et al., 2017). However, studies show that women have a greater fear of COVID-19 than men (Bitan et al., 2020; Broche-Pérez et al., 2020; Enea et al., 2021; Medina Fernández et al., 2021). At the same time research shows that the pandemic has taken a greater psychological toll on women than on men. This suggests that we need interventions and policies to reduce the adverse impact of the pandemic on women (Broche-Pérez et al., 2020).

Death is an inevitable and an inescapable fact of life. While birth has positive connotations, people avoid thinking and talking about death. Half of our participants thought about their death, while only ten participants stated that they never thought about their death. Thoughts about death did not affect participants' attitudes towards death. However, there was a relationship between thoughts about death and DAP "neutral acceptance and approach acceptance," "escape acceptance," and "fear of death and death avoidance" subscale scores. The more the participants think about their death, the greater fear they have of COVID-19 (Table 2). Ceyhan et al., found that more than half the nurses thought about their death from time to time. Sonmez Benli and Yildirim reported a relationship between thoughts about death and DAP total and subscale scores. To our knowledge, this is the first study to investigate the relationship between thoughts about death and fear of COVID-19. It is thought that this study will contribute to the literature with this feature.

Nurses are responsible for providing care not only to those who are recovering but also to those who are dying. Nurses and other clinicians should have the knowledge and skills necessary to care for dying patients and their family members (Lowey, 2015). Half of our participants stated that they knew partly enough about EOLC (Table 2). Participants who reported that they knew enough about EOLC had more positive attitudes towards the care of dying patients. Participants' DAP total and "neutral acceptance and approach acceptance" subscale scores depended on whether they knew enough about EOLC. There was no relationship between fear of COVID-19 and sufficient EOLC knowledge (Table 2). Nursing students are not adequately trained in the care of dying patients (Elmelegy et al., 2016; Glover et al., 2017; Ozer et al., 2015; Selcuk & Avcı, 2015; Sonmez Benli & Yildirim, 2017). Karadag reported that students who received education on death had more positive attitudes towards caring for dying patients. Nursing curricula should offer courses on EOLC to raise students' awareness and help them develop positive attitudes towards death and the care of dying patients (Karadag, 2020). However, there is no

research on the relationship between fear of COVID-19 and adequate EOLC knowledge. Although there is no relationship between EOLC knowledge and fear of COVID-19 in our study, considering the direct relationship between the COVID-19 pandemic and EOLC services, it is considered an important necessity to increase the number of studies that can reveal this relationship.

Most healthcare professionals avoid facing death and do not want to work in clinics with terminally ill patients (Karadag, 2020). Half of our participants wanted to provide EOLC. Those participants had more positive attitudes towards caring for dying patients (Table 2). Some studies report that nursing students want to provide EOLC (Uysal et al., 2019; Karadag & Inkaya, 2018), whereas others report that nursing students are reluctant to provide EOLC (Selcuk & Avcı, 2015; Yilmaz & Vermisli, 2015). We predict that nurses' attitudes towards caring for dying patients can change through good EOLC and care practices. Therefore, nursing curricula should address those topics. Our participants' willingness to provide EOLC was not affected by the pandemic. Turkey is going through a difficult period where bed occupancy rates are very high and most services have been converted to covid care units. This result indicates that nursing students think highly of their profession and are ready to devote their time and energy to caring for patients.

**Conclusion:** The COVID-19 pandemic has caused fear and panic worldwide. Universities have been offering distance learning to nursing students since the onset of the pandemic. However, online nursing education lacks clinical practice. Although there is a body of research on fear of COVID-19, there is no study investigating how the fear of COVID-19 affects nursing students' attitudes towards death and the care of dying patients. Female nursing students had a greater fear of COVID-19 than their male counterparts in this study. In addition the fear of COVID-19 affected nursing students' attitudes towards the care of dying patients. Authorities should take nursing students' fear of COVID-19 into account and develop training, clinical practice, and activities accordingly to help them develop more positive attitudes. Nursing students are the nurses of tomorrow who will

provide EOLC. Therefore, we should meet their needs and help them go through the pandemic. This study had two limitations. First, the results are sample-specific, and therefore, cannot be generalized to the whole population. Second, we could not access all nursing students because we collected the data online due to the pandemic.

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