

Original Article

A Concern that may Affect the Quality of End-of-Life Care: Turkish Nursing Students' Death Anxiety

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Abstract

Background: Nursing students have difficulties in the care of terminally ill patients in clinical education. Student's death anxiety may affect the quality of patient care negatively.

Objective: This study was conducted as a descriptive study in order to determine nursing students' death anxiety and the factors affecting it.

Method: The research was carried out with 527 students enrolled in the Nursing Department of a foundation university in Istanbul. Data were collected with the Thorson Powell death anxiety scale and were evaluated with the number, percentile, mean, standard deviation, Man Whitney-U, Kruskal Wallis and Tamhane tests.

Results: The mean death anxiety score of the nursing students was found to be 58.59 ± 14.76 (16-100). There was a difference between the mean death anxiety scores according to the independent variables such as gender, grade and willingness to care ($p < 0.05$). Female students had a significantly higher mean death anxiety score compared to males. The mean death anxiety scores of the first and third year students were higher than the second year students. The death anxiety score of students who were reluctant to care for terminally ill patients were higher than those who were willing ($p < 0.05$).

Conclusion: Nursing students experience considerable death anxiety while providing end-of-life care in clinical practice. Especially the anxiety of female students, those in certain grades and the reluctant ones needs to be addressed.

Key words: Nursing student; death; death anxiety, education, end-of-life care

Introduction

Death is a universal fact eventually experienced by all living organisms (Yilmaz and Vermisli 2015). Death anxiety refers to an psychologic state involving fear and anxiety about death triggered by thoughts of dying (Chen et al. 2006; Cheong et al. 2020; McKenzie and Brown 2017; Pehlivan et al. 2020). This anxiety reminds the person of the inevitability of death or being deeply threatened by death. Death anxiety is closely related to mental health (Jazaiery et al. 2022), and it is known to play a role in the progression of many mental disorders (Menzies et al. 2019). Death anxiety has been found to be associated with negative health outcomes such as decrease in physical functions, psychological stress (Karabag and Fidan 2022).

Although death anxiety affects all individuals, it deeply affects all healthcare professionals, especially nurses, who care for patients and frequently face patients' death. Caring for near-death individuals is often an emotionally painful, distressing and sometimes threatening situation for nurses. While giving care to the terminally ill patient, nurses may experience anxiety, denial, anger, and depression similar to the patient and family. Fear of being inadequate in the care of the patient causes them to experience failure, helplessness and guilt (Dikmen 2013; McKenzie and Brown 2017).

While giving care to terminally ill patients, nurses not only have to help the patients and family while experiencing death closely, but also face the reality of their own death (Bahar 2007; Peters 2013). In particular, some studies on death anxiety during the COVID-19 pandemic have shown that nurses experience

more death anxiety than other team members (Jazaiery et al. 2022; Karabag et al. 2022; Sahin et al. 2020). Personal attitudes towards death excessive anxiety about death or denial of death can negatively affect the quality of patient care (Cheong et al. 2020; Nia et al. 2016; Peters et al. 2013; Sahin et al. 2020; Tepe Medin et al. 2020). It may cause them to focus only on the physical care of the patient and ignore the psychosocial needs (Byock and Miles 2003). Providing end-of-life care to the patients brings many different stressors. Nurses who experience a sense of loss with death may eventually experience feelings of burnout. Therefore, nurses should first have insight into their individual beliefs, recognize their feelings towards death and be able to express it (Dikmen 2013; İnci and Öz 2012; Peters et al. 2013). Nursing care of the dying person is a challenging process that requires specialized nursing skills and experience (Peters et al. 2013).

Nursing students are given the responsibility of sustaining life during their education. For students who see the responsibility of keeping the individual alive, the inability to prevent death activates the feelings and thoughts of failure and despair (Oz 2004). After completing the theoretical studies, students will participate in clinical practice. Changes in the learning environment, learning style and living environment and after the theoretical education, the transition events to the real death exposure process can have an impact on the students' feelings and thoughts (Asadpour et al. 2016). Stressful conditions associated with the care of terminally ill patients may increase death anxiety in nursing students who have not experienced such a crisis and who don't have sufficient experience and skills to cope with it. Students should be taught methods of recognizing their own death anxiety, being aware of their attitudes towards death, expressing their feelings, and helping terminal patients and their families during the theoretical education process at school and in clinics (Nyatanga 2016). In order for nursing students to provide the necessary support to patients and their family who are in the process of death, they should first be able to understand and control their own emotions (Bilge et al. 2013).

Students' awareness of death anxiety is very important in terms of controlling their

negative feelings about death and providing appropriate health care to dying patients (Nia 2016). Student nurses who are aware of death anxiety can recognize the situation of the dying patient, apply supportive care, and thus rise the quality of care maintained to the dying patient. If students start working life with a negative attitude due to death anxiety, they may experience individual mental health problems and the quality of care they provide may decrease (Sahin et al. 2016).

Death anxiety levels of nursing students should be determined after graduation so that nursing students who will become health professionals can communicate with dying patients and maintain them with the support they need (Uysal et al. 2019). This study was conducted to determine the death anxiety of nursing students studying at a foundation university and the factors affecting it. The research questions of this study were:

1. What is the level of death anxiety among nursing students?
2. What are the factors affecting death anxiety?

Methods

Design and setting: The research was conducted in Jan 2018 as a descriptive cross-sectional study. It was conducted with all students who volunteered to participate in the study and were registered in the nursing programs of a foundation university in Istanbul. The University is an institution in a populated city of Turkey, where students from all over the country come for education. The student profile of the school reflects an example of the general sociocultural structure of the Turkish Muslim society. The sample size of the study was determined by G power analysis. Effect size 0.5; confidence interval 0.95; significance level 0.05; when the power was accepted as 95%, it was calculated as 210 people. The sample consists of 527 students educating in all grades of the nursing department of the university in the 2017-2018 academic year and accepting the interview. Inclusion criteria are to be a nursing student aged 18 or over and to volunteer to participate in the study. The students were explained about the research. their voluntary consent was obtained, and the questionnaires were distributed. Approximate filling time was 8-10 minutes.

Data collection tools: Data were collected with participant characteristics form and “Thorson Powell death anxiety scale”. In the participant characteristics form, there were questions about the students’ grade, gender, marital status, hometown, loss of a relative, the death of a patient they cared for, whether they had experience of caring for a cancer patient, an critically ill patient and a terminally ill patient, their willingness to end-of-life care and the state of feeling competent in care. Thorson Powell Death Anxiety Scale (TPDAS) is a 5-point Likert-type scale. It was developed by Thorson and Powell (1984) and culturally adapted to Turkish by Karaca and Yildiz (2001). It had a total of 25 questions of which 17 were positive and 8 were negative. The maximum possible score of the TPDAS was 100, and the minimum was 0. Higher points indicated higher levels of death anxiety (Thorson Powell, 1984). The Cronbach’s α value of the scale was 0.83 in Thorson & Powell's study and 0.84 in Karaca and Yildiz (2001)'s study.

Statistical Analysis: The data obtained from the study were evaluated using the SPSS statistical package program (version 21, Chicago IL. USA). Since the data did not show normal distribution, nonparametric tests were used. In the evaluation of the data number, percentile, mean, Kolmogorov-Smirnov, Shapiro-Wilk test, Man Whitney-U and Kruskal Wallis, Tamhane posthoc tests were used. Significance level was accepted as $p < 0.05$.

Results

The mean age of the students included in the study is $20.20 \pm 1.73(17-24)$. It was determined that 84.2% of the students were female students, 97.9% were single, and 92.4% lived in the city center for a long time.

Of the nursing school students, 28.6% are in the first grade, 26.9% are in the second grade, 25.6% are in the third grade and 18.9% are in

the fourth grade. 52.9% of the students experienced the loss of a relative.

From students; 46.1% witnessed the death of a patient they cared for, 39.5% cared for a cancer patient, 44% cared for an intensive care patient, 41.2% had the experience the end-of-life care. It was determined that 48.2% of the students wanted to care for the terminally ill, and 45.4% felt sufficient to care for the terminally ill (Table 1).

The mean TPDAS score of the students is 58.59 ± 14.76 (16-100). TPDAS score averages of the students according to their sociodemographic characteristics are shown in Table 2. The mean death anxiety score of female students was found to be statistically significantly higher than that of males ($p < 0.05$). When the scores of the students were compared according to the grades they were in, the mean death anxiety scores of the first and third grades were found to be higher than those of the second grades. The mean death anxiety score of students who were reluctant to care for terminally ill patients was significantly higher than those who were willing ($p < 0.05$).

The death anxiety of the single students was higher than that of the married ones, although the difference was not statistically significant ($p > 0.05$). The death anxiety score of those who did not experience a loss was higher than those who did experience a loss, the difference was not significant ($p > 0.05$). Similarly, the death anxiety score of those who did not lose their caregiver was higher than those who lost, the difference was not statistically significant ($p > 0.05$).

Death anxiety scores of those who did not care for terminal patients were higher than those who provided care, the difference was not statistically significant ($p > 0.05$). The anxiety of those who did not feel competent about caregiving was higher than those who felt competent, the difference was not statistically significant ($p > 0.05$) in Table 3.

Table 1. The distribution of definitive characteristics of the nursing students (N= 527)

Variables		
Age	(x+ss)(min-max)	(20.20±1.73)(17-24).
	n	%

Gender		
Female	444	84.2
Male	83	15.8
Marital status		
Married	11	2.1
Unmarried	516	97.9
Place he grew up in (place he lived for the longest		
Village	40	7.6
City center	487	92.4
Grade		
1	150	28.6
2	142	26.9
3	135	25.6
4	100	18.9
Experienced the loss of a relative (Funeral experience)		
Yes	279	52.9
No	248	47.1
Experienced the death of a patient he cared for		
Yes	243	46.1
No	284	53.9
Cared for a cancer patient		
Yes	208	39.5
No	319	60.5
Cared for a critically ill patient		
Yes	232	44.0
No	295	56.0
End-of-life caregiving		
Yes	217	41.2
No	310	58.8
Willingness for end-of-life caregiving		
Wiling	254	48.2
Reluctant	273	51.8
Competency for end-of-life caregiving		
Competent	239	45.4
Incompetent	288	54.6

Table 2. Comparison of death anxiety mean scores of nursing students according to their definitive characteristics

	<i>n</i>	Mean ± SD	Test
Gender			
Female	444	59.56 ± 14.18	Z= -3.079 p= 0.002 * p < 0.05
Male	83	53.38 ± 16.71	
Marital status			
Married	11	52.45 ± 12.13	Z= -1.784 p= 0.074 p > 0.05
Unmarried	516	58.74 ± 10.01	

Place he lived for the longest				
Village	40	58.27 ± 14.02		Z = - .481
City center	487	58.62 ± 10.94		p = 0.630 p > 0.05
Grade				
1	150	60.58 ± 11.68		KW=11.099 p= 0.011* p < 0.05 1,3>2**
2	142	55.81 ± 12.22		
3	135	60.77 ± 11.74		
4	100	56.62 ± 13.07		
Funeral experience				
Yes	279	57.63 ± 11.05		Z= -1.725
No	248	59.66 ± 10.03		p= 0.085 p > 0.05

*Significance p < 0.05 **Posthoc test: Tamhane

Table 3. Comparison of death anxiety mean scores of nursing students according to their end of life caregiving variables

Variables	n	X ± SD	Test
Experienced the death of a patient he cared for			
Yes	243	57.49 ± 12.01	Z= -1.685
No	284	59,51 ± 14.37	P= 0.092
Cared for a cancer patient			
Yes	208	58.39 ± 12.95	Z = - 0.464
No	319	58.69 ± 11.82	P= 0.642
Cared for a critically ill patient			
Yes	232	58.51 ± 13.24	Z= - 0.066
No	295	58.64 ± 14.07	P= 0.947
End-of-life caregiving			
Yes	217	57.43 ± 12.05	Z= -1.566
No	310	59.37 ± 11.08	P= 0.117
Willingness for end-of-life caregiving			
Wiling	254	57.11 ± 15,50	Z= -2.050
Reluctant	273	59.94 ± 13,95	p=0.040 * p<.05
Competency for end-of-life caregiving			
Competent	239	57.61 ± 14.47	Z= -1.574
Incompetent	288	59.38 ± 13.91	P= .115

*Significance p < 0.05

Discussion

In this study, the mean death anxiety score of nursing students was found to be 58.59±14.76 (16-100). In other studies, it was determined that it was between 54.27±11.30 and 59.15±14.94 points (Sahin et al. 2016; Bilge et al. 2013; Karabag et al. 2022). Students' death anxiety is at a moderate level, similar to the findings of previous studies. In a study conducted with American nursing students, death anxiety of experienced nurse students

was found to be higher when compared to other students (Chen et al. 2006). Health education students often face death during the time of their education and their attitudes towards death are shaped by their experiences. These experiences may even affect their life attitudes and future professional careers (Ozer et al. 2015; Shi et al. 2019). It is expected that students will become able to recognize their feelings about death, manage their feelings, and support the patient and their relatives over time. For this

reason, it is not desirable to have high death anxiety.

According to previous studies, death anxiety can be affected by many factors such as age, gender, education level, religion, beliefs, family support, and social status (Bakan and Arli 2018; Macleod et al. 2019; Kim and Kim 2019; Testoni et al. 2019; Anwer et al. 2020; Harrawood et al. 2009; Yin et al. 2020). Also, death anxiety may vary over time in the same population. As a matter of fact, it has been reported that nursing students who care for COVID-19 patients have had a very high level of death anxiety during the pandemic period (Mohammadi et al. 2022).

In studies conducted with nurses, findings have suggested that age affects death anxiety (Anwer et al. 2020). It has been stated that young nurses under the age of 30 have less ability to cope with negative attitudes and emotional demands of working life, regardless of the cultural environment they work in (Peters et al. 2013). As all the students in this study were in the young age group, education on the subject would undoubtedly be beneficial in reducing death anxiety.

Giving nursing students the responsibility of end-of-life care, especially in the early stages of education, can be difficult for them. When the death anxiety scores of the students were compared according to the grade they were in, the scores of the first and third grade students were found to be higher than the second grade ($p < 0.05$). Students learn and experience the care for terminally ill over time as the curriculum progresses. In some studies, death anxiety was found to be higher in first-year students (Genc et al. 2018; Sahin et al. 2016), and it was reported that death anxiety decreased as the level of education increased (Erdogdu and Ozkan 2007). When the literature is examined, studies that found that death anxiety in nursing students is high in third-year students also draws attention. Findings of Mondragon-Sánchez et al. (2015) and Pasli Gurdogan et al (2019) are similar to our findings. During nursing education, students are asked to care for patients with more complex situations in their upper periods. It is thought that death anxiety increases due to the fact that the students studying in the third year stay in the clinical area for a longer time and encounter more

complicated patients in departments such as oncology, intensive care unit. The fact that the death anxiety of the students was not high in the 4th grade can be explained by the fact that they completed the courses related to the care of the terminally ill and reinforced it in clinical practice.

There was a difference between the anxiety scores of the students according to their sociodemographic characteristics and gender. In our study, the mean death anxiety score of female students was statistically significantly higher than that of males ($p < 0.05$). Previous literature has shown that when the level of death anxiety in health workers was compared by gender; death anxiety of women was found to be higher than men (Sahin et al. 2016; Pehlivan et al. 2020; He and Li 2022; Ertufan 2012; Testoni et al. 2019; Cakmak et al. 2022). Lester et al. (2006), in their study on death anxiety, found that in thirty-seven of forty studies using the Templer Death Anxiety Scale, girls had higher death anxiety levels than boys. Our findings support the existing literature on this subject. It is stated that female students are more prone to emotional reactions such as fear and anxiety and they do not hide their feelings about this issue (Anwer et al. 2020; Abdel-Khalek and Thomas Sabado 2005). On the contrary, another study found that the death anxiety of male students was higher than that of females (Halıcı et al. 2016).

In our study, 97.9% of the students participating our study were unmarried. Although the mean death anxiety score of single students was higher than that of married students, the difference was not significant. Several studies have found that married individuals have higher death anxiety (Erdogdu and Ozkan 2007; Genc et al. 2018). It is emphasized that the feeling of responsibility towards spouse and children can increase death anxiety in married people.

It was determined that the fact that the students mostly live in a village or a city did not make a significant difference between their death anxiety scores. In the study conducted by Avci (2012), it was reported that university students' living in rural or urban areas did not change their death anxiety.

Religious beliefs are one of the most important factors affecting death anxiety.

Starting from the oldest beliefs, all religions that have survived to the present day, with the belief in the immortality of the soul and the existence of the hereafter, have contributed to the reduction of the fear and anxiety of people in the face of extinction, nothingness and death. All of the students in our study population are Muslim nursing students. In Muslim societies, death is considered as the resurrection of the soul to Allah by removing the soul from the realm (Karadag et al. 2019). Among the Muslim people who believe in life after death, negative perceptions may rise aversive effects and death anxiety. As a matter of fact, death anxiety of Egyptian Muslim female students was found to be higher than that of Hispanics (Abdel-Khalek and Tomas Sabado 2005).

Cultural approaches can also affect death anxiety. For example, in cultures where talking about death is taboo, people are reluctant to contemplate and confront an unpleasant issue such as death, become uneasy and avoid the situation (Zeng et al. 2019). Interns in a hospital setting cannot avoid facing death. When faced with death, many experience a state of fear, shock and loss, and negative emotions such as depression and sadness caused by a lack of knowledge.

It was determined that 52.9% of the students in this study had a funeral experience in their family, however, there was no difference between the death anxiety scores of those who had a funeral experience and those who did not ($p > 0.05$). Pehlivan et al. (2020) found that the death anxiety of those who lost a relative was higher than those who did not experience a loss. In the study of Genc Kose et al. (2018) on death anxiety of health school students, it was determined that death anxiety is high, and this anxiety is higher in students who have experience with death (Genc Kose et al. 2018). On the other hand, Yin et al. (2020), discovered in their study that individuals who attend more funerals accept death easier.

In our study, almost half of the students in the education process; It was determined that they had the experience of caring for a cancer patient, giving care to an intensive care patient, caring for a patient at the end of his life in general clinics, witnessing the death of

a patient who was given care. There was no statistical difference between the death anxiety scores of the experienced and non-experienced. In the literature, it has been stated that giving care to a terminally ill patient or witnessing the death of a patient in his first student years can increase death anxiety. In a study conducted among American nursing students, it was reported that experienced students had higher death anxiety than less experienced other students (Chen et al. 2006). On the other hand, death anxiety was also associated with negative attitudes towards the care of dying patients, and it was stated that it could lead to avoidance behavior. In American cancer nurses, it was emphasized that those with less experience were more likely to fear and avoid death (White and Coyne 2011). Pehlivan et al. (2020) reported a positive relationship between death anxiety and avoidance behavior from the dying patient. Students who show avoidance behavior due to fear of death may unconsciously stay away from terminally ill patients, making it difficult for them to develop competence in care.

In our study, when the students were asked whether they were willing to care for terminally ill patients, it was seen that about half of them were not. In many studies, it has been observed that more than half of nursing students do not want to care for a dying patient (Sahin et al., 2016; Tasdemir and Gok 2012). It was observed that the death anxiety of the students who were reluctant was significantly higher than those who were willing. Sahin et al. (2016) also reported similar findings in their study. If these students' death anxiety can be reduced by addressing them, they will be able to show a more positive approach to terminally ill care. As a matter of fact, Peters (2013) emphasized that nurses who have a positive attitude towards death are more likely to have a more positive attitude when giving end-of-life care to patients.

In a study conducted on student nurses, it was determined that end-of-life care creates anxiety on students, and this anxiety stems from feelings of inadequacy and helplessness arising from not knowing how to direct the patient and what to say (Ozer et al. 2015).

It was determined that more than half of the students did not feel sufficient in caring for the terminally ill patient. The anxiety of those who did not feel self-sufficient was slightly higher than the others, however there was no statistical significance. Increasing the sense of competence in care may reduce death anxiety. In the study on developing competence in the care of the terminally ill in healthcare professionals, the three components of competence to provide optimal care were shown as self-efficacy, knowledge of practice and competence in the work environment. Self-efficacy is the most important of these, it includes the use of personal resources and existential and emotional coping (Chan and Tin, 2012). Existential coping includes the role played by spirituality, religion, hope, and faith. Emotional coping means maintaining self-care and strong mental health (Sirati Nir et al. 2013)

The care of the terminally ill patient is given to the students in the lessons and practiced in the clinic. Nursing students experience death anxiety due to lack of knowledge and feelings of helplessness during the care of the terminally ill (Ozer et al. 2015; Yilmaz and Vermisli 2015). In a study examining the training needs of nurses for the care of the dying patient, it was reported that they perceived lack of education regarding preparations for providing effective care (White and Coyne 2011).

In a study examining the effect of nurses' education level on death anxiety, postgraduate students reported lower levels of death anxiety than undergraduate students (Nienaber and Goedereis 2015). It is stated that education reduces death anxiety (Mok and Chiu 2004). Cerit (2019) conducted a comparative study on death examining the attitudes of first-year nursing students before and after education in Turkey. As a result of the research, it was shown that education can effectively create positive attitudes towards death and the care of dying patients (Cerit 2019). During the transition from education life to a complex clinical work environment, it is vital that nursing students reduce their death anxiety and adapt to their attitudes towards death. Precautions should be taken to protect the mental health of nursing students, to increase their resilience and to alleviate their death anxiety.

Conclusion: In our study, the death anxiety of the students was found to be moderate level, the anxiety level of female students is higher than that of males. The death anxiety scores of the first and third grade students are higher than the second grade students. The death anxiety level of students who are not willing to care for terminal stage patients is higher than those who are willing. Nursing students need counseling services to reduce death anxiety and training on coping methods. In line with the findings obtained from the study; causes of high death anxiety among third grade students should be investigated. Awareness activities highlighting the need for terminally ill patients' care can be organized in order to prevent the reluctance to care for terminal stage patients. The effects of different education methods on reducing death anxiety can be investigated.

Limitations of the research: Research findings cannot be generalized to all Turkish nursing students. Our sample mostly consisted of students living in the city center for the longest time, whereas the student population representing the rural area was insufficient. Another limitation is that the data on death anxiety, which is an abstract subject, were collected quantitatively in the study, and no open-ended questions were included.

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