

# The Relation of Adaptation Difficulty to Death Anxiety and Depression Among Individuals Living in a Nursing Home

## Huzurevinde Yaşayan Bireyler Arasında Uyum Güçlüğü ile Ölüm Kaygısı ve Depresyon Arasındaki İlişki

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**ABSTRACT Objective:** This study aims to investigate the relation of adaptation difficulty to death anxiety and depression among individuals living in a nursing home. **Material and Methods:** The study was conducted with 62 individuals living in a nursing home. Data were collected using the Personal Information Form, the Assessment Scale of Adaptation Difficulty for the Elderly (There were four sub dimensions of interest: role and self-actualisation, interdependence, physiological status, and self-concept), the Death Anxiety Scale, and the Death Depression Scale. **Results:** The mean Assessment Scale of Adaptation Difficulty for the Elderly, the Death Anxiety Scale and the Death Depression Scale scores were  $0.83\pm 0.41$ ,  $8.61\pm 2.97$  and  $9.45\pm 4.25$ , respectively. There was a weak negative correlation between physiological states and the self-concept scores of the Death Anxiety Scale and the Assessment Scale of Adaptation Difficulty for the Elderly subscales. There were statistically significant differences between the Death Anxiety Scale total scores by gender and educational status, between the Death Anxiety Scale total scores by age, and between the Assessment Scale of Adaptation Difficulty for the Elderly total scores based on gender, educational status, perception of health condition, and ability to perform daily activities ( $p<0.05$ ). **Conclusion:** Adaptation in terms of role and self-actualisation were generally negative, while death anxiety and depression were moderate. Death anxiety was most associated with physiological states and self-concepts. Specifically, death anxiety was therefore higher in males and people educated up to high-school and above levels, whereas death depression was higher in those aged from 58 to 70 years.

**Keywords:** Aged; nursing homes; adaptation; death anxiety; death depression

**ÖZET Amaç:** Bu çalışmada huzurevinde yaşayan bireylerde uyum güçlüğüne, ölüm anksiyetesi ve ölüme ilişkin depresyon ile ilişkisinin incelenmesi amaçlandı. **Gereç ve Yöntemler:** Araştırma huzurevinde yaşayan 62 birey ile yürütülmüştür. Veriler Kişisel Bilgi Formu, Yaşlılarda Uyum Güçlüğüne Değerlendirme Ölçeği (Ölçeğin Rol ve Kendini Gerçekleştirme Bıçımı, Karşılıklı Bağlanma, Fizyolojik Durum ve Benlik Tarzı olmak üzere dört alt boyutu bulunmaktadır), Ölüm Anksiyetesi Ölçeği ve Ölüme İlişkin Depresyon Ölçeği ile toplandı. **Bulgular:** Ölüm anksiyetesi puanı  $8,61\pm 2,97$ , depresyon  $9,45\pm 4,25$  ve uyum güçlüğü  $0,83\pm 0,41$  olarak bulundu. Ölüm anksiyetesi puanları arttıkça fizyolojik durum ve benlik tarzı puanlarının istatistiksel olarak anlamlı düzeyde azaldığı saptandı. Bireylerin cinsiyetine ve eğitim durumuna göre Ölüm Anksiyetesi, yaşına göre Ölüme İlişkin Depresyon Ölçeği puanları arasında istatistiksel olarak anlamlı fark bulundu. Cinsiyete, eğitim durumuna, sağlık durumunu algılamasına ve günlük işlerini yapabilme durumuna göre Yaşlılarda Uyum Güçlüğüne Değerlendirme Ölçeği toplam puanları arasında istatistiksel olarak anlamlı fark saptandı ( $p<0,05$ ). **Sonuç:** Bireylerin rol ve kendini gerçekleştirme biçimi yönünden uyumları olumsuz, ölüme ilişkin anksiyete ve depresyonları orta düzeydedir. Ölüme ilişkin anksiyete en çok fizyolojik durum ve benlik tarzları ile ilişkilidir. Cinsiyeti erkek, lise ve üzeri eğitilmiş olanlarda ölüm anksiyetesi, 58-70 yaş arasında olanlarda ise ölüme ilişkin depresyon daha yüksektir.

**Anahtar Kelimeler:** Yaşlı; huzurevi; adaptasyon; ölüm anksiyetesi; ölüm depresyonu

Ageing is an irreversible process, and it is anticipated that the elderly population will increase as part of the total population in the

future. Indeed, while the elderly population constituted 6.9% of the total population in 2000, they are expected to constitute 19.3% by 2050.<sup>1</sup> In Turkey, the

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proportion of people aged 65 years and above was 7.5% of the total population in 2012, but had increased to 8.3% by 2016.<sup>2</sup>

With advancing age, health-related problems increase and there is a decline in the physical, mental and social aspects of health.<sup>3,4</sup> Problems with movement, nutrition, personal hygiene, altered social relations, and depression are among the most significant challenges experienced in old age. Along with these, there is an increasing need to adapt to life-critical conditions, such as restricted physical and cognitive ability, health problems, injuries, loss and death; individuals may also feel closer to death. Living in a nursing home can affect adaptation to these problems, potentially causing distrust, scepticism, anxiety, reduced self-esteem, weakness and a sense of worthlessness.<sup>1,5,6</sup> With all these emotional changes, increasing age can cause death anxiety and depression.

Old age is indicative of approaching death. While most people are not ready to die, it can be beneficial to understand that “death”.<sup>4</sup> Death anxiety occurs when the attitude towards death is characterised by fear, threat, anxiety and negative emotions and can be defined as a fear emerging from the perceived threat of death.<sup>7-9</sup> Death anxiety is experienced by all human beings and is based on fears that we will no longer exist and that all will be lost, worsened by the reality that death is out of one’s personal control.<sup>10</sup> Death depression is a psychological and conceptual phenomenon related to death.<sup>11</sup> In the literature, studies have shown that levels of death anxiety and depression are moderate in the elderly, but that some 60% experience death depression.<sup>9,12-14</sup>

There are numerous causes of death anxiety and depression in the elderly.<sup>9,15</sup> Feelings of loneliness increase with the death of spouses, friends and loved ones. Diseases, injuries, changes in physical functioning, life events, living in nursing homes for long times and having difficulty adapting to old age can all cause death anxiety and depression.<sup>4,9,15</sup> In particular, maintaining a life in a nursing home can lead to unwanted feelings such as being addicted, lack of confidence, abandonment, loneliness and lack of privacy in the elderly, and they may see the nursing home as a prison for themselves.<sup>11</sup> These feelings can

affect both the physical and mental health of the individual, can prevent meaningful living with a high quality of life and can cause feelings of hopelessness and stress.<sup>3,13,14,16</sup> At the same time, facing death anxiety plays a role in the development of mental disorders in the elderly.<sup>11</sup> In a systematic review, it was demonstrated that maintaining an active life, psychological change, communication with important people and a social life were important for adaptation in the elderly.<sup>1</sup>

Even though several national and international studies have been conducted for examining death anxiety and depression, few have examined the role of adaptation difficulty.<sup>5-9,12,15-18</sup> The aim of elderly care should be to meet the physical, social, psychological and spiritual needs of the individuals, and to improve their quality of life. Despite the growing population of the elderly, their psychological and spiritual needs cannot be met adequately. However, health professionals in institutions could manage death anxiety and depression by facilitating adaptation. Recognising the emotional states and adaptation difficulties faced by elderly individuals is important in helping them live their remaining lives meaningfully and with quality. The care and training that will be given to the elderly by health professionals should be planned by considering the holistic perspective in terms of physiological, psychological, social and spiritual aspects. Psychiatric nurses, who are important health professionals in this context, should treat individuals living in nursing homes as a whole, provide moral support for them and help them feel comfortable and peaceful. We therefore aimed to investigate the relation of adaptation difficulty to death anxiety and depression among individuals living in a nursing home. Following questions were asked during the research process:

1. What are the adaptation difficulties, death anxiety and depression levels of the individuals living in a nursing home?
2. Is adaptation difficulty related to death anxiety and depression among individuals living in a nursing home?
3. What factors affect adaptation difficulty, death anxiety and depression levels among individuals living in a nursing home?

## MATERIAL AND METHODS

### STUDY DESIGN AND SETTING

This descriptive study was conducted in 2017 between March 1 and March 30. The study population consisted of 70 individuals aged 58 years and older living in a nursing home in a central province of Sivas. There is only one nursing home in this region (Sivas). The final sample included 62 individuals after excluding 8 individuals who either had perception or hearing difficulties, could not communicate effectively or did not agree to participate. All individuals except the ones in exclusion criteria were included in the sample. All research forms were completed via face-to-face interview in the nursing home environment by the researchers. Forms were completed one-to-one with individuals in their own rooms in the afternoons. Data were collected in a single session and no follow-up was performed again. The forms took 20-30 minutes for completion.

The rooms where the individuals live in the nursing home are single and individuals live in this environment for 24 hours. 5 nurses, 1 doctor and 1 psychologist serve as health professionals in the nursing home. Individuals have their meals together in the dining room. Individuals who are unable to meet their individual care (such as nutrition, excretion, hygiene, movement, medication use) are assisted by employees in charge. A break room is available to meet their relaxation and communication needs. In the nursing home, the daily needs of people in need of protection and care are met, health care activities are carried out, psychological support is provided, and socio-cultural activities such as hand skills, excursions, picnics, exhibitions and musical entertainment programs are conducted for them to spend their leisure time.

### MEASURES

**Personal Information Form:** This 18-item form questions the socio-demographic characteristics of the individuals such as age, gender, education, marital status, income status (8 items) and characteristics such as medication use, smoking, duration of stay in nursing home, reason for stay in a nursing home, and frequency of death thought (10 items).

**The Assessment Scale of Adaptation Difficulty for the Elderly (ASADE):** This scales which was developed by Sisman and Kutlu, included 4-point Likert-type scales covering 24 items.<sup>18</sup> The scales were evaluated by calculating the mean overall score (range 0-3), as follows: no=0 point; some=1 point; quite=2 points; and very=3 points. Adaptation was considered higher if the score was closer to zero. There were four sub dimensions of interest: “role and self-actualisation,” “interdependence,” “physiological status,” and “self-concept.” The validity and reliability of the scale were good, with a Cronbach’s alpha of 0.93 in the original research and 0.87 in this study. The following is an example question for the sub-dimensions of ASADE:

Role and self-actualisation: “*Are you having difficulty in maintaining your daily activities physically (walking, eating, taking medication, dressing, personal care, sleeping, toilet, etc.)?*”

Interdependence: “*Are you having difficulty in building a social relationship with people (friendship)?*”

Physiological status: “*Are you having problems in doing your daily activities depending on the idea that one day life will end?*”

Self-concept: “*Do you feel distressed?*”

**The Death Anxiety Scale (DAS):** Death anxiety was assessed using DAS developed by Templer et al. and adapted by Senol et al. for use in Turkey (Senol C. *Anxiety and fear of death in the institutions living in institutions in Ankara. Graduate Thesis. Ankara: Ankara University Social Sciences Institute; 1989*).<sup>19</sup> The 15-item scale included death-related expressions (i.e., of anxiety, fear, and horror), and it measured the individual’s anxiety and fear of their own death and the risk of death. All items were rated on a binary scale (true or false), and the sum gave the DAS score (range 0-15). Higher scores indicated higher death anxiety. Using the test-retest method in 30 elderly people at a 3-week interval, Senol showed a correlation of 0.86 between the two scores (Senol C. *Anxiety and fear of death in the institutions living in institutions in Ankara. Graduate Thesis. Ankara: Ankara Univer-*

sity Social Sciences Institute; 1989). In the present study, the Cronbach’s alpha was 0.64. Sample expression for DAS: “I’m too scared to die.”

**The Death Depression Scale (DDS):** Death-associated depression was assessed using DDS developed by Templer et al. and adapted by Yaparel and Yıldız for use in Turkey.<sup>20,21</sup> This 17-item scale measured depression, sadness, loneliness, horror and grief associated with death. All items were rated on a binary (true or false) basis, giving a score range from 0 to 17, where higher scores indicated higher death depression. The original scale had a Cronbach’s alpha of 0.74, but this was 0.83 in our study. Sample expression for DDS: “Death refers to an unbearable loneliness.”<sup>21</sup>

**DATA ANALYSIS**

Data were analyzed by using SPSS version 22. When analysing data, numbers and percentages were reported for descriptive data and means ± standard deviations were reported for scale scores. When the parametric test assumptions were not met, Mann–Whitney *U* tests were used for comparing two groups and Kruskal-Wallis tests were used for comparing three or more groups. The relationship between the variables was determined using Spearman correlation analysis, using the Bonferroni test to determine where the difference arose. Statistical significance was set at *p*<0.05.

**ETHICAL CONSIDERATIONS**

We obtained written permission from the institution in which the study was conducted and ethics committee approval from our Non-Interventional Clinical Research Ethics Committee (Decision no. 2016-12/11) before the research. Elderly individuals were only asked to participate after the purpose of the research was explained and informed consent was obtained. Elderly individuals who accepted to participate in the study were informed that the decision about participating in the study was completely their own, the collected information will be confidential, their names will not be written on the forms, their personal information will be protected and the data will be used within the scope of the research. As the cognitive functions of the individuals may affect the find-

ings, perception, location, person and time related orientation situations were evaluated by asking questions. Individuals who gave clear answers to the questions and who did not have orientation disorder were included in the study. The study was conducted in accordance with the principles of the Declaration of Helsinki.

**RESULTS**

The average age of all the nursing home residents was 73.43±10.44 years (range 58-97 years). Among these, 53.2% of the participants were male, 50% were literate and 67.7% had deceased spouses. In addition, 66.1% stated that they did not work before moving to the nursing home, 72.6% had balanced income and expenditure, 62.9% had children and 43.5% perceived their health status as moderate. Morbidity was high, with 77.4% having a diagnosed disease and 66.1% using a medicine regularly, but 88.7% did not smoke. Most participants had lived in a nursing home for 0-5 years (77.4%), with inability to do housework or care for themselves being cited as a major reason (37.1%), although 80.6% could still independently carry out their daily activities. Only 48.4% of the participants had visitors. Finally, 69.4% of the participants reported that they sometimes had thoughts regarding death.

The average scores for the ASADE, DAS and DDS, including the sub dimension scores for the ASADE, are summarised in Table 1; the average total scores were 0.83±0.41, 8.61±2.97 and 9.45±4.25, respectively.

Table 2 shows the relationship between the ASADE and DAS/DDS. There was a weak negative

**TABLE 1: Average ASADE, DAS and DDS scores.**

Scales and Sub dimensions	min-max	X±S
ASADE		
Role and Self-actualisation	0-2	1.01±0.55
Interdependence	0-2.29	0.57±0.55
Physiological State	0-1.5	0.76±0.47
Self-concept	0-2.5	0.95±0.58
Total	0.04-1.50	0.83±0.41
DAS	2-14	8.61±2.97
DDS	2-15	9.45±4.25

ASADE: Assessment Scale of Adaptation Difficulty for the Elderly; DAS: Death Anxiety Scale; DDS: Death Depression Scale.

**TABLE 2:** The relationship between the ASADE and DAS/DDS.

Scales	Test	RSA	I	PS	SC	Total ASADE
<b>DAS</b>	r	-0.147	-0.043	-0.272*	-0.352**	-0.179
	p	0.255	0.739	<b>0.032</b>	<b>0.005</b>	0.165
<b>DDS</b>	r	-0.022	0.032	-0.027	-0.038	-0.027
	p	0.863	0.803	0.836	0.768	0.836

\*Correlation is significant at 0.05; \*\*Correlation is significant at 0.01; Significant findings are shown in bold.

ASADE: Assessment Scale of Adaptation Difficulty for the Elderly; DAS: Death Anxiety Scale; DDS: Death Depression Scale; I: Interdependence; PS: Physiological state; r: Spearman correlation analysis; RSA: Role and self-actualisation; SC: Self-concept.

statistically significant correlation between the DAS and the ASADE sub dimensions of physiological state ( $r=-0.272$ ;  $p=0.032$ ) and self-concept ( $r=-0.352$ ;  $p=0.005$ ). As death anxiety increased, physiological state and self-concept scores decreased. However, there were no statistically significant correlations between the DDS and any element of the ASADE.

Table 3 shows that there was a statistically significant difference between the DAS scores by gender and educational status and between the DDS scores by age ( $p<0.05$ ). Specifically, death anxiety was therefore higher in males and people educated up to high-school and above levels, whereas death

depression was higher in those aged from 58 to 70 years.

Table 4 summarises the ASADE scores by socio-demographic characteristics. There was a statistically significant difference between role and self-actualisation, physiological state, and ASADE total scores by gender, educational status, perception of health condition, and ability to perform daily activities and between self-concept scores by gender and perception of health condition. Role and self-actualisation, physiological state, and general adaptation levels were poor for females, those who perceive their health condition as bad, and those who were unable

**TABLE 3:** DAS and DDS scores by socio-demographic characteristics.

Characteristics	DAS Median (min-max)	DDS Median (min-max)
<b>Age (years)</b>		
58–70	9.00 (2-12)	12.50 (2-15)
71–97	8.00 (2-14)	8.00 (2-15)
Test	$p=0.108$	<b><math>p=0.021^*</math></b>
	MU= 345.500	MU= 297.000
<b>Gender</b>		
Female	7.00 (2-14)	9.00 (2-15)
Male	10.00 (2-14)	12.00 (2-15)
Test	<b><math>p=0.014^*</math></b>	$p=0.150$
	MU= 305.000	MU= 377.000
<b>Education level</b>		
Literate	7.00 (2-14)	7.00 (2-15)
Primary school graduate	9.00 (3-12)	12.00 (2-15)
High-school graduate and above	12.00 (8-13)	11.00 (8-15)
Test	<b><math>p=0.004^*</math></b>	$p=0.097$
	KW= 11.101	KW= 4.658
	$c > a$ ; $c > b$	

\* $p < 0.05$ ; Significant findings are shown in bold.

DAS: Death Anxiety Scale; DDS: Death Depression Scale; KW: Kruskal-Wallis test; MU: Mann-Whitney U test.

**TABLE 4: ASADE scores by socio-demographic characteristics.**

Characteristics	RSA Med (min-max)	I Med (min-max)	PS Med (min-max)	SC Med (min-max)	Total ASADE (min-max)
<b>Gender</b>					
Female	1.22 (0-2)	0.71 (0-2)	1.00 (0-1.50)	1.25 (0.25-2.50)	1.12 (0.12-1.50)
Male	1.00 (0-1.89)	2.85 (0-2.29)	0.50 (0-1.50)	0.75 (0-2.50)	0.54 (0.04-1.42)
Test	<b>p= 0.023*</b> MU= 317.500	<b>p= 0.053</b> MU= 343.000	<b>p= 0.020*</b> MU= 315.500	<b>p= 0.070*</b> MU= 352.000	<b>p= 0.009*</b> MU= 294.000
<b>Education level</b>					
Literate <sup>a</sup>	1.22 (0-2)	0.57 (0-1.57)	1.00 (0-1.50)	1.00 (0-2)	0.95 (0.12-1.50)
Primary school graduate <sup>b</sup>	1.00 (0-1.89)	0.42 (0-2.29)	0.50 (0-1.50)	1.00 (0-2.50)	0.87 (0.04-1.42)
High-school graduate and above <sup>c</sup>	0.16 (0.11-1.67)	0.07 (0-1.14)	0.00 (0-1.00)	0.25 (0-1.50)	0.22 (0.04-1.33)
Test	<b>p= 0.032*</b> KW= 6.891 c > a; c > b	p= 0.240 KW= 2.852	<b>p= 0.003*</b> KW= 11.520 c > a; c > b	p= 0.100 KW= 4.604	<b>p= 0.019*</b> KW = 7.900 c > a; c > b
<b>Perception of health condition**</b>					
Good <sup>a</sup>	0.72 (0-2)	0.07 (0-1.43)	0.62 (0-1.50)	0.75 (0-1.25)	0.50 (0.04-1.33)
Moderate <sup>b</sup>	1.11 (0.33-1.89)	0.42 (0-2.29)	1.00 (0-1.50)	1.25 (0.25-2.50)	1.04 (0.17-1.42)
Bad <sup>c</sup>	1.22 (0.56-1.89)	0.42 (0-2.29)	1.00 (0.25-1.50)	1.00 (0.25-2.50)	1.12 (0.46-1.50)
Test	<b>p= 0.024*</b> KW= 7.496 a > b; a > c	p= 0.084 KW= 4.961	<b>p= 0.049*</b> KW= 6.043 a > b; a > c	<b>p= 0.016*</b> KW= 8.233 a > b; a > c	<b>p= 0.007*</b> KW= 10.034 a > b; a > c
<b>Performing daily activities</b>					
Independently	1.00 (0-1.89)	0.28 (0-2.29)	0.75 (0-1.50)	0.87 (0-2.50)	0.83 (0.04-1.50)
Not independently	1.50 (0.89-2)	0.71 (0-1.57)	1.12 (0.25-1.50)	1.25 (0.75-2)	1.12 (0.71-1.50)
Test	<b>p= 0.001*</b> MU = 114.000	p = 0.164 MU = 223.000	<b>p= 0.020*</b> MU = 171.500	p= 0.074 MU = 201.000	<b>p= 0.003*</b> MU = 135.500

\*p < 0.05, \*\*Health condition is categorised as "good", "moderate" and "bad"; Significant findings are shown in bold.

ASADE: Assessment Scale of Adaptation Difficulty for the Elderly; I: Interdependence, KW: Kruskal-Wallis test; MU: Mann-Whitney U test; PS: Psychological state; RSA: Role and self-actualisation; SC: Self-concept.

to perform daily activities. Lastly, self-concept was poor among females and those who perceived their health as bad.

## DISCUSSION

The physical, mental and social needs of the elderly are ideally met through their environment, including their spouses, family and friends. However, needs may be inadequately met when individuals move to live in a nursing home, and they can develop adaptation difficulties as well as feelings of depression, anxiety, weakness and reduced self-worth.<sup>6,18</sup>

In the present research, most participants had good overall adaptation and could still do their daily work independently (80.6%). However, adaptations to changed roles and self-actualisation were more negative compared with that in other dimensions, similar to previous reports.<sup>18</sup> This result explains the 1<sup>st</sup> question of the research. It was proposed that the role change caused by aging increased the possibility of adaptation difficulty. The fundamental requirement of role and self-actualisation is arguably social integration, and another study reported that the weakening of social relations and detachment from society increased the risk of cognitive decline in the elderly and were significantly associated with death.<sup>18,22</sup> This finding of our study is important for determining the changing roles that emerge due to aging.

Death anxiety has been shown to be a common mood among the elderly.<sup>12</sup> The moderate level of anxiety and depression regarding death among individuals in our cohort was noteworthy. This result explains the 1<sup>st</sup> question of the research. However, when we examined national and international studies, levels of death anxiety and depression were similar to those in this study when comparing individuals of similar age.<sup>8-10,13,23</sup>

As death anxiety increased among participants in the present research, their physiological state and self-concept scores decreased. This result explains the 2<sup>nd</sup> question of the research. The physiological state has been reported to be associated with the physical response of a person to environmental stimuli.<sup>18</sup> Individuals are reportedly more likely to experience death anxiety as they age, and this can negatively af-

fect daily life activities and lead to difficulties with physiological and psychological adaptation.<sup>1,6,14</sup> As death anxiety increases, individuals can develop difficulty in keeping up with daily activities, making decisions about their lives and communicating with others. They may feel sad, distressed and weak, and may have difficulty to express themselves.<sup>6,18</sup>

Gender and education are among the factors known to affect death anxiety.<sup>7,15,17,24</sup> In this study, death anxiety was more prevalent among men and people educated up to high-school level and higher. This result explains the 3<sup>rd</sup> question of the research. Whereas women are thought to assess death emotionally, men are thought to assess it cognitively.<sup>16</sup> Therefore, men were probably more likely to experience death anxiety because women could express their feelings more easily. Research on older men living with their families supports our finding that men experience more death anxiety.<sup>9</sup> In addition, the finding that men have more death anxiety than women in Dadfar et al.'s study carried out with young, middle-aged and old Iranian people, supports our research findings.<sup>25</sup> In another study conducted by the same author with university students, he found that male students had higher death anxiety than females.<sup>26</sup> This may be explained by the fact that individuals have similar cultures. In our study, 74 elderly individuals with an average age of 65 years living in Iran, found that older women had higher death difficulties than men, but the difference was not statistically significant. Unlike from our study findings, in another study carried out with 74 elderly individuals with an average age of 65 living in Iran, it was found that older women had higher death difficulties than men, but the difference was not statistically significant.<sup>11</sup> This may be explained by the fact that the sample groups in the researches are different.

It has been stated that elderly people with higher educational levels wish for longer lives.<sup>7</sup> Indeed, consistently with our findings, Portal Moreno, De La Fuente Solana, Rico and Lozano Fernández reported that elderly people who graduated from primary and secondary schools were more likely to experience death anxiety compared with their illiterate peers.<sup>27</sup> Yet, other studies have

also shown that women and uneducated elderly individuals experience most death anxiety, although others still have shown no significant differences in death anxiety between genders or between gender and educational level.<sup>7,8,10,13,15-17,24,27</sup> These differences may have resulted from differences in the cohorts studied.

In general, it is accepted that the fear of death increases with increasing age. Because when older people review their life experiences, they realize that they do not have the chance to make up for their mistakes and they may experience anxiety and fear about death.<sup>11</sup> In a study conducted with Iranian people, it was found that elderly individuals showed more death anxiety than young and middle aged individuals.<sup>25</sup> Using the Geriatric Depression Scale, for example, it has been shown that depression levels were higher among people older than 80 years.<sup>12</sup> However, our research showed that it was individuals aged 58-70 years who were more likely to experience death depression. This result explains the 3<sup>rd</sup> question of the research. It is stated that fear of death mostly occurs in middle age and old age.<sup>11</sup> Given that loneliness has been closely associated with the fear of death, it is possible that the younger individuals who experienced depression in our cohort had those feelings exacerbated by living in a nursing home and by loneliness. In this age group, people may have a greater sense of depression because they have had to leave their families at a younger age, they have moved away from their social environment, they feel abandoned, they realise that they are closer to death, or any combination of these factors. Similarly to our finding, other research has generally shown that death anxiety decreases as age increases.<sup>10,12,28</sup> However, conflicting with our results, Sridevi and Swathi showed that there was no significant relationship between age and death depression.<sup>9</sup> Cultural variations in conceptualizations of death can explain death anxiety experienced in different ages.<sup>29</sup>

Personal factors may affect adaptation to aging.<sup>5,6,18</sup> Role and self-actualisation, physiological and general adaptation levels were poor for females, for those who perceived their health condition to be bad and for those who could not perform daily activities. This result answers the 3<sup>rd</sup> question of the re-

search. In a similar study to ours, it was reported that being male and having a high educational level were positively correlated with adaptation to aging.<sup>5</sup> Chao et al. also found that psychosocial adaptation was good among elderly people with higher education levels and better physical statuses.<sup>6</sup> Although Sisman and Kutlu showed favourable adaptation for people with higher educational levels as was shown in the present study.<sup>18</sup>

In this study, adaptation was poor for the self-concept domain among females and those who perceive their health as bad. This result answers the 3<sup>rd</sup> question of the research. Self-concept concerns how older people feel sad, troubled or weak, and how they express themselves. The underlying requirement is psychological integrity.<sup>18</sup> It was assumed that women prioritised their psychological needs and that existing physiological disorders may have affected their mental health. This finding may indicate that women living in nursing homes have more psychological needs, with some studies available that support this finding.<sup>30,31</sup>

Several limitations must be considered when interpreting the data of this study. Results obtained from this study include only the sample group in which the study was conducted, they cannot be generalised (who living in a nursing home in a central province of Sivas/Turkey). Another limitation of this study is its descriptive type. Eight people were excluded from the research (because they cannot communicate effectively and have perceptions or hearing difficulties). There is a small group living in the nursing home (because there is only one nursing home in Sivas). For this reason, the number of samples is small. The cognitive function of the participant can affect the results obtained from this study. In addition, the fact that a measurement tool was not used to determine the degree of disability was the limitation of the study.

## CONCLUSION

In conclusion, adaptation to role changes and self-actualisation was poor, but elderly individuals living in nursing homes generally had good adaptation levels overall. Anxiety and depression associated with death were moderate in our cohort. Death anxiety is related to physiological states and self-concept styles. Based



on the findings, it is recommended for nurses to support people living in the nursing home in eliminating their adaptation difficulties, to evaluate the death anxiety and depression levels, and to carry out applied studies to reduce the negative feelings related to these concepts. In addition, psychiatric nurses' playing an active role in nursing homes and collecting detailed data from individuals in terms of physical, social, spiritual and spiritual aspects are important in care planning. Individuals should be informed about the problems that they may face in old age and ways of coping. It is recommended to organize activities (crafts, painting, etc.) for the elderly that they can perform with the group in order to spend their free time more actively, to increase their communication opportunities with their relatives and to ensure their active participation in activities such as trips and picnics.

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### Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

### Authorship Contributions

**Idea/Concept:** Şükran Ertekin Pınar, Gülbahtiyar Demirel; **Design:** Şükran Ertekin Pınar, Gülbahtiyar Demirel; **Control/Supervision:** Şükran Ertekin Pınar; **Data Collection and/or Processing:** Gülbahtiyar Demirel; **Analysis and/or Interpretation:** Şükran Ertekin Pınar, Gülbahtiyar Demirel; **Literature Review:** Şükran Ertekin Pınar; **Writing the Article:** Şükran Ertekin Pınar; **Critical Review:** Şükran Ertekin Pınar, Gülbahtiyar Demirel; **References and Findings:** Şükran Ertekin Pınar, Gülbahtiyar Demirel; **Materials:** Şükran Ertekin Pınar, Gülbahtiyar Demirel.

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