

Research Paper



The Mediating Role of Spirituality and Personal Values Between Personality Dimensions and Death Anxiety in the Elderly

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Citation Zanganeh Gheshlaghi, M. Z., Salehi, M., Jafari Roshan, M. (2025). The Mediating Role of Spirituality and Personal Values Between Personality Dimensions and Death Anxiety in the Elderly. *Journal of Practice in Clinical Psychology*, 13(1), 19-32. <https://doi.org/10.32598/jpcp.13.1.908.2>

doi <https://doi.org/10.32598/jpcp.13.1.908.2>

Article info:

Received: 18 Nov 2024

Accepted: 01 Dec 2024

Available Online: 01 Jan 2025

Keywords:

Death anxiety (DA),
Personality dimensions
(PDs), Personal values (PV),
Spirituality, Elderly

ABSTRACT

Objective: The present study aims to formulate a model of death anxiety (DA) in the elderly living in nursing homes based on personal values (PV) and spirituality and with the mediating role of gender.

Methods: The present research was conducted using correlational method and path analysis. The statistical population included all the elderly living in private nursing homes in Tehran City, Iran, in the summer and autumn of 2023, of which 340 people were selected by the convenience sampling method. During one session and individually, the participants responded to the Templer DA scale (DAS) (1970), Schwartz's value survey, the spiritual questionnaire, and the HEXACO personality inventory-revised.

Results: The results showed that the total path coefficient (PC) between PV ($\beta=-0.211$, $P=0.001$) and spirituality ($\beta=-0.192$, $P=0.001$) were significant with DA. Indirect PC of extraversion ($P=0.001$, $\beta=-0.054$), conscientiousness ($\beta=-0.058$, $P=0.001$), humility ($P=0.049$, $\beta=-0.023$) and emotionality ($P=0.001$, $\beta=0.038$) were significant with DA. The indirect PC between PV ($P=0.001$, $\beta=0.037$) and spirituality ($P=0.001$, $\beta=0.060$) with DA was negative and significant. Therefore, DA mediates the relationship between personality dimensions (PDs), PV, and spirituality. The research model was different in terms of fit with the data of two groups of women and men.

Conclusion: Multiple psychological mechanisms can predict DA in the elderly.

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Highlights

- Aging is associated with challenges, such as physical diseases, increased health anxiety (HA), and death, which is one of the most challenging stages of life and a complex set of physical, mental, and social changes that elderly people face and is a heavy burden for their social psychology and mental health.
- Previous studies have shown that the elderly are more prone to anxiety due to decreased self-confidence, impaired activity and movement, loss of friends and relatives, decreased physical independence, and chronic diseases.
- Using data analysis and path analysis (PA) methods, this study investigates a death anxiety (DA) model in the elderly living in nursing homes based on personal values (PV) and spirituality with the mediating role of gender.

Plain Language Summary

The present study shows that DA mediates the relationship between personality dimensions (PDs), PV, and spirituality. The research model is different in terms of fit with the data of two groups of women and men. Multiple psychological mechanisms can predict DA in the elderly.

Introduction

Anxiety is one of the common problems of old age. Meanwhile, the most common anxiety may be anxiety of death. The level of death anxiety (DA) in people can be different due to individual differences as well as many social factors, environmental factors, and views on death (Khalvati et al., 2021). DA is a type of anxiety experienced by living people that can affect a person's existential health, especially their mental health functioning. DA can increase negative attitudes about aging and even lead to more anxiety and fear (Maxfield et al., 2021).

Gravitz (2008) believes that the patient turns to spirituality, collective and family activities, and the like to escape the anxiety of death. Spirituality makes people look at problems with gentleness and compassion, make more efforts to find a solution, endure the hardships of life better, and give dynamism and movement to their lives. Spirituality is the dimension of a man that shows his connection and integration with the universe. This connection and integration give hope and meaning to the man and take him beyond the limits of time, place, and material interests. Having such an advanced personal philosophy about death reduces anxiety and fear of death (Majidi & Moradi, 2017). Gravitz (2008) believes that the thought of death has a religious and spiritual origin, and having religious faith relies on emptiness; the stronger the fear, the greater the faith. In this regard, Sharifi et al. (2022) stated that considering that spirituality an-

swers all the questions related to death and the cause of human existence, it creates a sense of predictability and a sense of control in people. This sense prevents the evoked anxiety that is caused by the specific attitude of death and facing death. As a result, anxiety and depression in the elderly are reduced. Spirituality can help the elderly as a crucial source of support for physical and mental health Sharifi et al. (2022).

Glasser (2019) emphasizes the choice theory on the dimensions of personality, conscientiousness, and responsibility in individuals to achieve the meaning of life. Individuals should identify the behavior they try to correct, pay attention to it, and not make excuses to deny their responsibility. Conscientious people can make better choices by re-evaluating their desires and behaviors to be satisfied with life and ultimately achieve a more flexible, meaningful, and enjoyable life. Ashton et al. (2007) first proposed HEXACO personality dimensions (PDs). This model assumes that PDs can be summarized in six dimensions: Honesty-humility, emotionality, extraversion, agreeableness, conscientiousness and openness to experience (Lee & Ashton, 2018).

Both values and PDs are suitable to predict a person's thoughts, feelings, and behaviors. Some elderly people seem to be more exposed to health anxiety (HA) and DA due to a lack of personal values (PV), an inability to face stressful environments, and some PDs (Babaei et al., 2019; Blawert & Wurm, 2021).

Personality and its dimensions influence human overt and hidden behaviors and have always been considered by researchers and theorists of behavioral sciences (Golparvar, 2017). People's personalities are the primary dimension and psychological structure that help to form their values. The individual differences of the elderly can be explained based on PDs (Alipour Gourand et al., 2023).

Frankl provides one of the most famous definitions of meaning in life. He believes that when people engage in their favorite activities, meet with others, watch artistic-literary works, or take refuge in the lap of nature, they feel the presence of meaning in themselves. Also, when they feel that their existence is connected to an eternal source and see themselves relying on broad and reliable frameworks and support, such as religion and philosophy that they have chosen to live, they find meaning in findings and feel it (Frankl et al., 2014). The meaning of life refers to a feeling of connection with the creator of all the world of existence, having a purpose in life, pursuing and achieving valuable goals, and reaching evolution. The meaning of life is cognitive because it includes people's beliefs about the existence of an ultimate goal in life, belief in spirituality, and the afterlife (Dehdari et al., 2013). Spirituality gives meaning to people's lives, and as a crucial coping resource in critical situations, it helps the elderly to face the meaning of life, the fear of death, and the resulting HA (Aminayi et al., 2013).

Therefore, elderly people develop several defense mechanisms to minimize DA. One such mechanism involves conforming to value standards endorsed by one's cultural worldview. This adaptation gives them a sense of meaning in life, which acts as a buffer against potential death-related anxiety (Zhang et al., 2019). Values are defined as principles and guides in people's lives and express the desired final states that people try to reach. Schwartz (2006) extracted ten types of personal motivational values and defined each type using central goals, including benevolence (trying to maintain the comfort and well-being of others), tradition (adherence to customs and cultural and religious customs), conformity (controlling undesirable social actions and impulses), security (health and stabilization of self and community status), power (exercising control over people and resources), achievement (acquiring competence by social standards), stimulation (provocation, innovation, and combativeness), universalism (protection and protection of mankind and nature), hedonism (seeking desire and pleasure in work and affairs) and self-direction (independence in thoughts and actions). In this model, values are classified into four categories: Conservative values,

including tradition, conformity and security; openness to change values, including stimulation, self-direction and hedonism; self-transcendent values, including universalism and benevolence; and self-enhancement values, including power, achievement and hedonism (Robinson, 2012).

Based on what has been said, the current research aims to answer this question: Does a causal model of DA in the elderly living in nursing homes based on PDs, PV, and spirituality with the moderating role of gender fit with the collected data?

Materials and Methods

The present research was conducted using correlational method and path analysis. The statistical population included all the elderly living in private nursing homes in Tehran City in the summer and autumn of 2023, of these 340 people were selected via convenience sampling. In the current research, the method of "the number of cases (N) to the number of estimated parameters (q), N: q" was used to determine the sample size. Based on the N: q rule, the sample-size-to-parameters ratio of 5:1 results in a small sample size, 10:1 is a suitable sample size and a ratio of 20:1 is optimal (Myers et al., 2016). Based on this method, in the present study, the sample size was 10 times the number of available parameters (21 parameters) and equal to 210 people.

Inclusion and exclusion criteria

The inclusion criteria included being 65 to 75 years old, having a reading and writing education, not being abandoned, not being unsupervised or poorly supervised, and being a widow.

The exclusion criteria included simultaneous use of psychiatric drugs and receiving psychotherapy interventions, suffering from acute chronic physical diseases, including acute diabetes, high blood pressure, and serious cardiovascular diseases.

Procedures

Templer DA scale (DAS)

Templer (1970) includes 15 items that measure an individual's attitudes toward death-related topics. Subjects specify their answers to each question with yes or no options. The scores of this scale range from 0 to 15, with a high score indicating an intense fear of death (Thanatophobia). The studies conducted on the validity

Table 1. Mean±SD, and correlation coefficients between research variables

Research Variables	1	2	3	4	5	6	7	8	9
1. Honesty-humility	-								
2. Emotionality	-0.29**	-							
3. Extraversion	0.63**	-0.26**	-						
4. Agreeableness	0.05	-0.07	0.11	-					
5. Conscientiousness	0.72**	-0.33**	0.68**	0.13*	-				
6. Openness to experience	0.32**	-0.10	0.39**	0.04	0.40**	-			
7. Spiritual	0.54**	0.34**	0.44**	0.12*	0.49**	0.15**	-		
8. PV	0.63**	0.42**	0.53**	0.04	0.63**	0.30**	0.64**	-	
9. DA	0.57**	0.42**	0.46**	0.07	0.55**	0.21**	0.57**	0.63**	-
Mean±SD	50.73±8.15	39.84±10.32	47.6±6.06	42.66±7.38	49.13±8.09	50.73±8.15	73.6±1	283.94±24.69	6.53±3.04

DA: Death anxiety; PV: Personal values.

*P<0.05, **P<0.01.

Table 2. Examining the assumptions of normality and collinearity

Research Variables	Univariate Normality		Collinearity of Values	
	Skewness	Kurtosis	Tolerance Coefficient	VIF
1. Honesty-humility	-0.83	0.19	0.39	2.57
2. Emotionality	0.22	-1.52	0.75	1.33
3. Extraversion	-0.98	0.55	0.43	2.3
4. Agreeableness	0.82	-0.16	0.96	1.04
5. Conscientiousness	-0.88	-0.29	0.33	3.07
6. Openness to experience	-1.03	1.78	0.79	1.27
7. Spiritual	-1.4	0.71	0.48	2.08
8. PV	-0.81	0.14	0.39	2.59
9. DA	-0.27	-0.32	-	-

Abbreviations: DA: Death anxiety; PV: Personal values; VIF: Variance inflation factor.

and reliability of the DAS scale show that this scale has acceptable validity. In the origin section, the test re-test reliability (i.e. intraclass correlation [ICC]) of the DAS scale is 0.83. Its concurrent validity is reported based on the correlation with the overt anxiety scale of 0.27 and the depression scale of 0.4. [Rajabi and Naderi Nobandegani \(2020\)](#) investigated the reliability and validity of the DAS scale in Iran. They reported the internal consistency coefficient as 0.73 and the correlation of the DAS scale with the overt anxiety scale as 0.34 as an index of convergent validity of the instrument.

The HEXACO personality inventory

The HEXACO personality inventory-revised ([Lee & Ashton, 2018](#)) contains of 100 items that measure 6 PDs, including honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience in a 5-point Likert scale from completely disagree=1 to completely agree=5. [Karimi and Minaei \(2017\)](#) obtained Cronbach's α coefficients in the range of 0.74 to 0.62 for this instrument. They reported the correlation of this tool with the NEO personality inventory revised as an index of convergent validity of the tool.

Schwartz value survey

Schwartz value survey consists of 57 items that assess ten value systems of power, self-directedness, stimulation, conformity, security, tradition, hedonism, achievement, benevolence, and universalism on a 5-point Likert scale. [Sharifi et al. \(2022\)](#) reported Cronbach's α coefficient

of 0.54 to 0.74 and the correlation of this tool with the Rokich questionnaire in the range of 0.39 to 0.49 as a convergent validity index of the tool.

Spirituality questionnaire

The spirituality questionnaire of [Parsian and Dunning \(2009\)](#) includes 29 items that evaluate four subscales (self-awareness, importance of spiritual beliefs, spiritual practices, and spiritual needs) in a 4-point Likert scale. [Aminayi et al. \(2015\)](#) reported Cronbach's α coefficients for the subscales of self-awareness, importance of spiritual beliefs, spiritual practices, and spiritual need as 0.84, 0.90, 0.77 and 0.82, respectively, and 0.9 for the entire test.

Results

In the present study, 340 elderly people (185 women and 155 men) participated with the Mean \pm SD of the age group of women and men equal to 66.24 \pm 3.19. [Table 1](#) presents the Mean \pm SD of PDs (honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience), HA and DA.

Univariate normal distribution

[Table 1](#) presents the correlation coefficients between the variables, based on which the direction of the correlation between the variables was consistent with the expectations and the theories of the research field. In this research, to evaluate the assumption of univariate nor-

Table 3. Fit indices of the research model

Fitness Indicators	Model	Cutting Points
Chi-square (χ^2)	1.49	-
Degrees of freedom (df)	2	-
Normed chi-square (χ^2/df)	0.74	<3
Goodness fit index (GFI)	0.999	<0.9
Adjusted goodness fit index (AGFI)	0.985	<0.85
Comparative fit index (CFI)	1	<0.9
Root mean square error of approximation (RMSEA)	0.007	>0.08

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mal distribution, kurtosis, and skewness of the variables and the assumption of collinearity of values, variance inflation factor (VIF) and tolerance coefficient were investigated (Table 2).

Table 2 shows that all components' kurtosis and skewness values are in the range of ± 2 . This result indicates that the assumption of univariate normal distribution among the data is valid (Kline, 2016). Also, as shown in Table 2, the assumption of collinearity was valid among the current research data because the tolerance coefficient values of predictor variables were >0.1 and the VIF values of each of them were <10 . According to Myers et al. (2016), the tolerance coefficient is less than 0.1, and the value of the VIF is higher than 10, indicating that the assumption of collinearity is not established.

Multivariate normal distribution (MND)

In this research, to evaluate the establishment or non-establishment of the assumption of MND, the information analysis related to "the Mahalanobis distance" was used. The values of Skewness and Kurtosis were 1.65 and 3.82, respectively. Therefore, the value of each index was in the range of ± 2 , which rejects the assumption of MND among the data. For this reason, a box plot was drawn for "the Mahalanobis distance" scores and found that the data for the three participants constituted multivariate outliers. For this reason, the data for those three participants were removed from the data. With this action, the skewness and kurtosis values of "the Mahalanobis distance" data were reduced to 1.16 and 1.01. In this way, after removing the multivariate outliers, the assumption of MND was established among the data. Finally, to evaluate the homogeneity of variances, the scatter diagram of the standardized error residuals was examined, and the evaluations showed that the assumption was also valid among the data.

Model specification

In the research model, it was assumed that PDs are mediated by HA and DA. To analyze the data, the path analysis (PA) method was used. To do this, AMOS software version 24 and the maximum likelihood estimation method were used.

Because nine indicators existed in the research model, its known elements were $v(v+1)/2=45$; on the other hand, the number of unknown elements was also 45, and as a result, its df was equal to zero ($45-45=0$). Models in which the df is equal to zero are called just-identified. In just-identified models, the estimation parameters and fitness indices are assumed to be complete and not estimated (Weston & Gore, 2006).

The evaluation of the path coefficient (PC) in the initial model showed that the PC of none of the three factors of extroversion, agreeableness, and openness to experience are significant with any of the variables of spirituality, PV, and DA. For this reason, three factors were left out in modifying the model. In addition, the direct PC between emotionality and DA on the one hand and the direct PC between the humility factor and DA on the other hand were not statistically significant. Therefore, these two paths were removed from the model. After modifying the model, the model's fit was again evaluated with the collected data. Table 3 presents the fit indices of the model after modification.

Table 3 presents that after modifying the model, the fit indices obtained from the PA support the acceptable fit of the model with the compiled data. Table 4 presents the PC in the research model.

Table 4. PC of direct effects, indirect effects, and total effects between research variables

Effect Type	Path	b	SE	β	P
Direct effect	Emotionality ---> spirituality	-0.138	0.043	-0.17	0.002
	Emotionality --->PV	-0.433	0.098	-0.216	0.001
	Conscientiousness ---> spirituality	0.237	0.105	0.194	0.032
	Conscientiousness --->PV	1.043	0.214	0.345	0.001
	Humility ---> Spirituality	0.431	0.101	0.351	0.001
	Humility --->PV	0.945	0.201	0.312	0.001
	Spirituality --->DA	-0.051	0.017	-0.25	0.002
	PV --->DA	-0.016	0.006	-0.196	0.012
	Conscientiousness --->DA	-0.04	0.019	-0.16	0.047
Indirect effect*	Emotionality --->DA	0.014	0.005	-0.085	0.001
	Conscientiousness --->DA	-0.029	0.01	-0.116	0.001
	Humility --->DA	-0.037	0.011	-0.149	0.001

DA: Death anxiety; PV personal values; SE: Standard error.

In this research, the bootstrap method with a sample size of 2000 was used to estimate the standard error of indirect effects.

According to the model in Figure 1, the three factors of agreeableness, extroversion, and openness to experience were removed from the model due to their non-significant relationship with PV, spirituality, and DA. Table 4 shows that the PC (direct and indirect PC) between spirituality (P=0.002, β =0.25) and PV (P=0.012, β =0.196) is negative and significant with DA. Also, among the per-

sonality factors, only the coefficient of the PC between conscientiousness and DA (P=0.047, β =0.160) was negative and significant. Also, the indirect PC between the emotionality factor and DA (P=0.001, β =0.085) is positive, and significant and the indirect PC between conscientiousness (P=0.001, β =-0.116) and humility (β =-0.149, P=0.001) are negative and significant with DA.

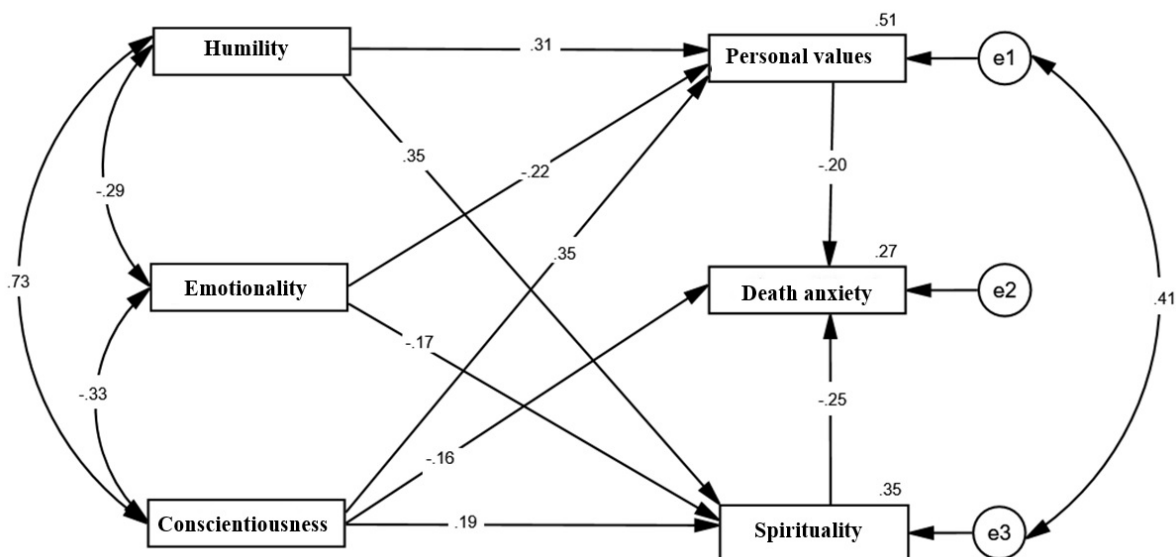


Figure 1. Standard parameters of the modified research model

Baron and Kenny's (1986) formula was used to evaluate the mediating role of each of the two variables of spirituality and PV in the relationship between the three personality factors and DA (Baron & Kenny, 1986; Mallinckrodt et al., 2006). The results showed positive PC between the emotionality factor with DA through spirituality ($\beta=0.043$, $P=0.009$) and PV ($\beta=0.042$, $P=0.014$). Also, the indirect PC between the conscientiousness factor and DA through spirituality ($P=0.049$, $\beta=0.004$) and PV ($P=0.001$, $\beta=0.068$) is negative and significant. Finally, the indirect PC between the factor of humility and DA through spirituality ($P=0.089$, $\beta=0.001$) and PV ($P=0.001$, $\beta=0.061$) is negative and significant. This result indicates that among the elderly, the two variables of spirituality and PV positively mediate the relationship between emotionality and DA, and the relationship between conscientiousness and humility and DA negatively and significantly.

Figure 1 shows the standard parameters in the research model. As shown, the sum of squared multiple correlation (R^2) for DA was equal to 0.27. This issue shows that the PD factors of humility, conscientiousness, emotionality, spirituality, and PV explain 62% of the variance of DA in the elderly.

Discussion

First hypothesis: PVs are related to DA in the elderly living in nursing homes.

Based on statistical analysis, it was concluded that PVs have a negative and significant relationship with DA in the elderly living in nursing homes. This result is consistent with the results of other researchers (Oreg & Taubman-Ben-Ari, 2024; Vyas & Nadkarni, 2024; Rababa et al., 2022; van der Haak, 2021; Abdollahi et al., 2021; Cui et al., 2020; Anamagh et al., 2020; Sabzearaye Langroodi et al., 2016) based on the relationship between PV and DA.

Vyas and Nadkarni (2023) confirmed the negative relationship between self-transcendence values and DA. Cui et al. (2020) showed that altruistic values and activities act as a shield against DA. Sabzearaye Langroodi et al. (2016) confirmed the significant positive relationship between the importance of external attractiveness, conformity, and hedonism with DA and its subscales. They showed that mortality salience leads to a decrease in the importance of unhealthy values. Consistent with the results of the present study, Hamidi et al. (2013) showed a significant relationship between PV and its components (except power) and DA. Also, conformity, achievement,

universalism, and tradition can significantly predict DA among the value components.

The present research results can be explained by referring to social and evolutionary psychology theory, terror management theory (TMT). According to TMT, humans are uniquely capable of recognizing their mortality salience, and therefore, must manage the existential catastrophe anxiety that comes from knowing that time is limited. According to this theory, defense against conscious and unconscious thoughts of death takes place through two separate defense styles, called "distal" and "proximal." Even when these thoughts are removed from the conscious level and focal attention using the adjacent defense style, they remain dynamic and accessible and threaten the psychological structure of people at the unconscious level. As a result, people establish meaningful values to shape their self-esteem and their life's purpose to manage this threat profoundly and permanently (Menziez & Menziez, 2020). According to this theory, the best way to defend against DA is to invest in a system of cultural values because the system of cultural values and beliefs (cultural worldview; CW) remains even after death. This survival of values is considered symbolically as the survival of the individual (symbolic immortality¹). Belief in immortality can reduce DA in the elderly. Consistent with this explanation, Rababa et al. (2022) found that low levels of symbolic immortality were associated with higher DA among nurses. This explanation is consistent with Oreg and Taubman-Ben-Ari's (2024) results, which showed that mortality salience made participants more likely to have children. Having children can reduce existential anxieties, such as DA, by strengthening each component of the fear management system, such as symbolic immortality, cultural worldview, self-esteem, and close relationships. In this context, van der Haak (2021) also believes that euthanasia and immortality reduce DA.

Many ways exist to achieve symbolic meaning and immortality for the elderly, including membership in a culture or nation that continues after their death. PVs, such as traditionalism or adherence to cultural and religious customs, provide a sense of identity and belonging that can help people connect with something lasting. In this regard, researchers have shown that highlighting death in experimental studies makes people more culturally defensive and defend symbols that give meaning to their lives more strongly (Heine et al., 2002). Studies have

¹Symbolic immortality is the idea that something beyond the self exists after death such as families, monuments books, paintings, or anything else that continues to exist after death.

shown that reminders of death increase people's need for faith, values, and accepted beliefs. As a result, they positively evaluate persons and viewpoints that defend these values and negative evaluations of threatening persons and viewpoints. Self-esteem compromised by the threat of death is thus reinforced by more substantial reference to symbols of immortality, such as one's religion or culture. This is why foreign cultures or other religions are considered a threat to some people and they choose a negative view of them (Courtney et al., 2020).

Several studies confirmed the relationship between PV and DA and also confirmed the theoretical framework of TMT about DA. For example, a group of researchers investigated the relationship between security (health and stability of self and community) and power (control over people and resources) with DA and showed that security can reduce DA.

In this context, researchers have investigated the relationship between saving money and DA and found that saving can relieve anxiety about the future and give people a sense of control over their destiny, thus making thoughts of death less threatening (Zaleskiewicz et al., 2013). Routledge and Arndt (2009) found that engaging in a creative task facilitated cultural worldview exploration in response to thinking about death. Cui et al. (2020) showed that values and benevolent activities act as a shield against DA, and the function of benevolence as an anxiety shield is intensified in interaction with meaning-making. According to TMT, death salience increases the need for self-meaning and cultural worldview adherence that can be achieved by participating in a benevolent task. Therefore, engaging in an interpersonal, friendly, creative, benevolent task can be considered a way to achieve meaning, thus curbing the anxiety caused by the awareness of death. Vyas and Nadkarni (2023) showed a negative and significant relationship between self-transcendence values and DA. Abdollahi et al. (2021) also confirmed the role of the anxiety shield of self-transcendence values against DA and found that transcendental values moderate the relationship between perceived stress and DA. Finding meaning and connecting with cultural values in old age seem to increase the hope of symbolic immortality and immortality of thoughts in the elderly and can be protective against DA.

Second hypothesis: Spirituality is related to DA in the elderly living in nursing homes.

Based on statistical analysis, it was concluded that spirituality has a negative and significant relationship with DA in the elderly living in nursing homes. This result is

consistent with the results of other researchers (Saeidi & Hamidi, 2024; Putri & Anganthi, 2023; Soriano & Calong, 2022; Partouche - Sebban et al., 2021; Rahman et al., 2021; Elahi et al., 2022; Khalvati et al., 2021; Hajatnia et al., 2021; Sadeghmoghadam et al., 2020; Emamirad & Amiri, 2017; Khodabakhshi-Koolae et al., 2018; Habibollahi et al., 2017) based on the relationship between spirituality and DA. For example, researchers (Saeidi & Hamidi, 2024; Putri & Anganthi, 2023) have confirmed the negative relationship between religiosity and spirituality with DA in numerous systematic studies.

Based on the results of Partouche-Sebban et al. (2021), higher levels of DA mainly lead to the adoption of emotion-focused and avoidant coping strategies, and spirituality moderates this effect. Sadeghmoghadam et al. (2020) found that the desire for spirituality and religious/spiritual interventions help to reduce stress and DA.

Frequent experience of social losses and inadequacies in the social support system, experience of bereavement and loss of a spouse, reduction and lack of individual independence, inevitable confrontation with the process of death and dying, in the elderly living in nursing homes, along with decreased self-efficacy associated with decreased level of physical abilities and facing reminders of death (such as the death of loved ones, incurable diseases, etc.) lead to increased level of DA in the elderly living in nursing homes (Guner et al., 2023). According to TMT (Greenberg et al., 1986), people's communication by adhering to cultural norms and values reduces DA. These values, such as spirituality, give the elderly a more positive view of the people around them and the views that support these values. According to TMT, thoughts related to death cause the activation of various defenses by provoking a feeling of fear and terror (Menzies & Menzies, 2020). Although these defenses remove death-related thoughts from the conscious level, death-related thoughts are still dynamically accessible at the semi-conscious level and threaten a person's mental structure and mental health. This issue justifies the tendency of people to believe in a meaningful value system and to gain and maintain their dignity. On this basis, spirituality provides a purposeful and meaningful explanation of the reason for existence and the purpose and destiny of man. From this point of view, spirituality can give people a sense of meaning and purpose in life, which reduces their DA because belief in a higher power or greater purpose can bring peace and reassurance and reduce anxiety about the unknown aspects of death. This result is consistent with the results of Sharifi et al. According to Sharifi et al. (2022), spirituality by answering the questions related to death and the cause of human ex-

istence, increasing the feeling of predictability and control over things, reduces the anxiety caused by a specific attitude towards death and facing death. This explanation is consistent with the results of [Yousefi Afrashteh and Ramezani, \(2024\)](#) as well as [Jin et al.\(2023\)](#) While confirming the relationship between the meaning of life and DA, they concluded that mental health problems can be reduced by finding meaning and value in one's life and dealing positively with death.

Spirituality often offers beliefs in life after death, reincarnation, or transcendence. These beliefs can reduce DA by increasing hope. In this regard, some spiritual systems, such as the Islamic spiritual system, emphasize the survival of the soul after death; believing in death and resurrection again on the Day of Judgment considers death as natural and reduces fear and anxiety about death ([Saleem & Saleem, 2020](#)). Spirituality encourages acceptance of the natural cycle of life and death and submission to a higher power or divine will. This acceptance can help people cope with death and reduce their DA ([Budhiraja & Midha, 2017](#)). This concept overlaps with the concept of immortality thoughts in TMT. According to this theory, man's awareness of death paralyzes fear. To overcome this fear, humans have created two distinct buffers, cultural worldview and self-esteem. A cultural worldview includes shared symbolic conceptions of the world, including identifying cultural values or endorsing belief systems, such as the belief in life after death. Sharing these cultural worldviews provides a sense of "symbolic immortality" by giving a sense of permanence and meaning in the face of death. Second, self-esteem, achieved through meeting cultural worldview expectations, moderates DA by creating a sense of worth from being a member of one's culture ([Menzies & Menzies, 2020](#)). Therefore, spirituality seems effective in reducing the DA of the elderly through mechanisms or concepts, such as symbolic immortality, immortality of thoughts, finding meaning, etc. Faith in a worldview and self-esteem arising from it protects the elderly against anxiety and stress. Therefore, it can be concluded that the current research results have implicitly confirmed TMT.

Spirituality also seems to help the elderly feel less isolated and lonely in the face of death through coping strategies (spiritual practices such as prayer, meditation, and mindfulness) that it provides to people to manage their DA. The application of these coping methods can reduce the fear of death while increasing flexibility and acceptance. The results of the systematic review of [Pandya and Kathuria \(2021\)](#) also support the effect of spiritual/religious rituals and coping mechanisms in reducing DA.

Researchers have shown that the elderly living in nursing homes have more existential concerns and a sense of meaninglessness toward life than elderly people living at home and elderly people benefiting from day rehabilitation center services. This difference depends on multiple factors, the reduction of human relationships in nursing homes is the most crucial ([Saarelainen et al., 2023; Marisa et al., 2020](#)). Spirituality often emphasizes connection with others, nature, and the world. Enhancing this sense of interconnectedness and integration with nature and spiritual communities can reduce the DA in the elderly by increasing social/spiritual connections and spiritual/social support from people present in spiritual communities and families because the feeling of loneliness is one of the vital predictors of DA in the elderly ([Guner et al., 2023](#)). Also, social communication, along with receiving positive feedback in the environment, while increasing life satisfaction in the elderly, reduces financial worries, feelings of loneliness, and depression, improves self-esteem and the degree of control of the individual over the environment, and reduces the anxiety of death in the elderly. In line with this explanation, [Yousefi Afrashteh et al. \(2024\)](#) have shown that the feeling of loneliness mediates the relationship between the meaning of life, psychological well-being, self-care, and social capital with depression and DA.

In this regard, guidelines for nursing home caregivers and nurses should be considered. For example, caregivers and nursing home aides can help seniors identify their values and plan their activities based on those values. This approach can also be integrated into mental health interventions, such as behavioral activation, to increase mental health.

Conclusion

The present study concluded that PVs have a negative and significant relationship with DA in the elderly living in nursing homes. Spirituality also seems to help the elderly feel less isolated and lonely in the face of death through coping strategies (spiritual practices, such as prayer, meditation, and mindfulness) that it provides to people to manage their DA. The application of these coping methods can reduce the fear of death while increasing flexibility and acceptance.

Ethical Considerations

Compliance with ethical guidelines

This study was approved by the Ethics Committee of Tehran Central Branch, Islamic Azad University, Tehran City, Iran (Code: IR.IAU.CTB.REC.1402.172).

Funding

This study was extracted from Mahjoubeh Zanganeh Gheslghahi's PhD dissertation, which was approved by the Department of Psychology, Faculty of Psychology and Educational Sciences, Tehran Central Branch, Islamic Azad University, Tehran City, Iran.

Authors' contributions

All authors equally contributed to preparing this article.

Conflict of interest

The authors declared no conflict of interest.

Acknowledgments

Thanks for the support and cooperation of the seniors who cooperated with the writing team.

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