

Original Article

Social Support, Body Image, and Death Anxiety in Later Life: A Cross-Sectional Study in Yazd City, Iran

Mohammad Ali Morowatisharifabad^{1,2}, Fatemeh Mozaffari^{1,2}, Sara Jambarsang³, Reza Bidaki^{4,5*}

^{1.} Department of Aging and Health, School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

^{2.} Elderly Health Research Center, School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

^{3.} Department of Bio-Statistics and Epidemiology, School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

^{4.} Research Center of Addiction and Behavioral Sciences, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

^{5.} Diabetes Research Center, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

* Corresponding Author: Research Center of Addiction and Behavioral Sciences, Shahid Sadoughi University of Medical Sciences, Yazd. Tel: +98 35 32633555, Email address: Reza_Bidaki@yahoo.com

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Morowatisharifabad MA, Mozaffari F, Jambarsang S, Bidaki R. Social support, body image, and death anxiety in later life: a cross-sectional study in Yazd city, Iran. Elderly Health Journal. 2024; 10(1): 20-26. **Introduction:** Social support is a crucial factor in how well older adults adjust to the aging process and related challenges, such as anxiety about death. Body image in older adults is a complex and important concept, yet it has been under-researched. This study examined the correlations between social support, death anxiety, and body image in older adults residing in Yazd City, Iran.

Methods: This cross-sectional study involved older adults from Yazd City, Iran, who visited comprehensive urban health centers in 2022. A convenience sample of 200 participants was selected. They completed questionnaires on demographics, social support perception, body image concerns, and death anxiety.

Results: The total social support score (p < 0.01) as well as the score of family support (p < 0.05) and others' support (p < 0.01) showed a significant negative correlation with death anxiety. However, no significant association was found between death anxiety and body image, nor between social support and body image. Regression analysis revealed that only "support from others" was a significant predictor of death anxiety (p < 0.01). Men reported receiving more friends' social support than women (p < 0.05). Participants with higher socioeconomic status were more likely to receive greater family's social support (p < 0.01) and experience less death anxiety (p < 0.05).

Conclusion: Social support positively impacts the mental well-being and morale of older adults. It can, therefore, be considered a readily available resource and a form of social capital to reduce death anxiety, enhance their sense of purpose, and improve their quality of life.

Keywords: Social Support, Body Image, Death Anxiety, Aging

Introduction

Aging is a complex process with interconnected physical, mental, and social dimensions. Social aging involves transitions in social roles and networks, impacting individuals at varying rates (1). Social factors, including social support, play a prominent role in the health and well-being of older adults (1). Studies have

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demonstrated the mediating role of social support in the relationship between loneliness and depression (2), its positive influence on quality of life and life satisfaction (3), and its association with physical activity levels (4).

The "shield hypothesis" posits that social support acts as a buffer against everyday stress and illness (5). It helps to reduce stress in older adults by promoting social interaction, which can alleviate depression, boost selfesteem, and enhance hope and life satisfaction (6). Elderly individuals with active social networks receive informal support and generally experience better mental and physical health compared to those with limited social engagement (7).

Death and death anxiety are significant concerns for older adults. Death is an unavoidable reality (8), and death anxiety can influence health behaviors (9). While some perceive death as a natural life stage, others fear its finality. Regardless of beliefs, death anxiety is generally present, though difficult to define. It encompasses fear of one's own death and the death of loved ones, including both the anticipation of one's own demise and the fear of the dying process itself (10, 11). Moorhead et al., describe it as a vague sense of fear or tension arising from perceived threats to existence (12). This anxiety can negatively impact mental and physical health (13). Lehto and Stein suggest death anxiety increases with growing awareness of mortality (14).

Physical appearance undergoes significant changes throughout the aging process. Body image, a person's self-assessment based on their physical overall characteristics, can be positive or negative. Individuals with positive body image accept their strengths and weaknesses, contributing to social confidence. Negative body image, on the other hand, is associated with feelings of worthlessness and inadequacy (15). Body image becomes more complex in later life. Societal misconceptions often equate aging with decline and incompetence, fostering negative attitudes towards physical changes (16). Research suggests body image concerns are increasingly prevalent among older adults, particularly women (17). Body-image anxiety can lead to feelings of devaluation and low self-esteem, ultimately reducing quality of life and causing emotional distress (18). Kim et al., found a positive correlation between body image, quality of life, and sexual well-being in South Korean elders (19). Gender also plays a role in death anxiety, with some studies indicating higher levels in older women (20).

Existing research has explored the relationships between death anxiety and social support, religion, life satisfaction, hope, mental health, and other factors in older adults (21-23). While studies have examined social support's impact on psychological well-being in later life, the association between body image and these variables remains under-investigated. Social support, body image, and demographic factors (age, gender, and socioeconomic status) are likely to play significant roles in death anxiety among older adults. This study aims to investigate these relationships in a sample of elderly individuals residing in Yazd City, Iran, in 2022. The findings can provide valuable information for policymakers to develop effective interventions and inform future research directions.

Methods

Study design and participants

This cross-sectional study was conducted in 2022 in Yazd City, Iran. The target population included elderly individuals aged 60 and above who visited comprehensive health centers. The sample size was calculated as 200 using Cochran's formula.

A two-stage sampling approach was employed. In the first stage, one comprehensive health center was randomly selected from each of the city's five urban regions. In the second stage, a convenience sampling method was used to select participants from the elderly individuals referring to these health centers. The number of selected participants from each center was proportional to the total number of elderly individuals registered there. Exclusion criteria included: Drug-related and stimulant disorders, Chronic physical conditions significantly affecting facial and body appearance, such as cancer (particularly with ongoing chemotherapy or radiotherapy), neurological diseases (e.g., multiple sclerosis), specific psychiatric disorders (e.g., Alzheimer's disease, schizophrenia), physical and mental disabilities, major depressive disorder, major anxiety disorder, or major body dysmorphic disorder (determined by asking: "Do you have a lot of mental preoccupation with your appearance?"), use of medications prescribed by a psychiatrist and professional athletes.

Instruments

Data collection tools included: a demographic characteristics questionnaire, the Phillips Social Support Appraisals Scale (24), the Littleton Body Image Concern Inventory (25), and the Templer Death Anxiety Scale (26).

Social Support Appraisals Scale: Developed by Vaux et al., (1986), this 23-item scale which presented in an agree (1) to disagree (4) format, assesses social support from three sources: family (8 items), friends (7 items), and others (8 items). A total score and family, friend and others subscale scores were derived. Higher scores indicating greater perceived social support (24). Mashak (2006) confirmed the instrument's validity in Iran, and Cronbach's alpha and split-half reliability coefficients were reported as 72% and 70% for the entire scale, respectively (27).

Littleton Body Image Concern Inventory: This 19-item questionnaire, designed by Littleton et al., in 2005, uses a five-point Likert scale ranging from 1 (never) to 5 (always) (25). Bassak Nejad and Ghafari (2008) reported a validity coefficient of 95% based on internal consistency using Cronbach's alpha in the Iranian population (28).

Templer Death Anxiety Scale: This widely used selfreport scale, developed by Templer in 1971, measures death anxiety. It consists of 15 agree/disagree items, with "agree" responses indicating higher levels of anxiety. Scores range from 0 to 15, with scores exceeding 8 suggesting high death anxiety (26). Regarding the Persian version, Cronbach's alpha coefficients for the three factors were reported as 49%, 68%, and 60%, respectively (29). Templer reported a scale retesting reliability coefficient of 83%.



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Data analysis

Data were first analyzed using descriptive statistics, including frequency, percentage, mean, standard deviation, minimum, maximum, kurtosis, and skewness, to describe the characteristics of the sample. Inferential statistical analyses were then conducted to examine group differences and relationships between variables. Independent t-tests were used to compare participants based on gender (female vs. male) and marital status (married vs. single/widowed/divorced). One-way analysis of variance (ANOVA) was employed to compare the three groups categorized by economic status (weak, moderate, and good). Pearson correlation coefficients were calculated to assess the strength and direction of relationships between continuous variables. Finally, linear regression analysis was performed to predict death anxiety and body image using social support as the independent variable.

Ethical considerations

This research received ethical approval from the Ethics Committee of Shahid Sadoughi University of Medical Sciences, Yazd (Ethics Code: IR.SSU.SPH.REC1395.15). Participation in the study was voluntary, and informed consent was obtained from all participants. Confidentiality and anonymity of information were ensured throughout the research process.

Results

Participant demographics were analyzed using frequency and percentage calculations. The sample consisted of 56% (N = 112) males and 44% (N = 88) females. Forty percent had a primary school education, 81% were married, and 74.5% belonged to the moderate economic status category. The majority (89%) owned their homes, 74% lived with their spouses, and nearly all (99.5%) had health insurance coverage. (Table 1)

Table 2 shows descriptive information of continuous variables. The skewness and kurtosis values of all continuous variables were within the range of -2 to 2, indicating normally distributed data. The mean participant age was 66.08 years (SD = 6.30).

Men reported higher scores on the friends' support dimension compared to women (p < 0.05). There was no significant difference in the total social support score and other dimensions of social support as well as other studied variables according to gender and marital status. (Table 3)

One-way ANOVA revealed significant differences among the three economic status groups (weak, moderate, good) regarding family support (p < 0.01), others' support (p < 0.01), total social support (p < 0.01), and death anxiety (p < 0.05). Post-hoc analysis showed that individuals with moderate and good levels of family support scored higher than those with weak family support. Similarly, the dimensions of others' support and total social support differed significantly across economic status groups. Individuals with higher economic status reported greater others' support. For death anxiety, a significant difference was observed between the weak and moderate economic status groups, with the weak economic status group reporting higher anxiety. (Table 3)

Family support (p < 0.05), Others' support (p < 0.01) and total social support (p < 0.01) showed significant negative correlations with death anxiety. In simpler terms, greater social support was associated with lower death anxiety. Conversely, a significant positive correlation was found between death anxiety and body image (p < 0.01), indicating that increased negative body image was associated with higher death anxiety. Age did not significantly correlate with any of the study variables. (Table 4)

The regression analysis for social support predicting body image revealed that family support, friends' support, and others' support collectively explained only 2% of the variance in body image ($R^2 = 0.02$, F(1, 196) = 1.31, p > 0.05). This F value suggests that the social support dimensions were not significant predictors of body image.

In contrast, the regression analysis for social support predicting death anxiety indicated that family support, friends' support, and others' support collectively explained 9% of the variance in death anxiety ($R^2 = 0.09$, F(1, 196) = 6.55, p < .05). Table 5 presents the standardized and unstandardized coefficients for this analysis. Notably, only others' support emerged as a significant predictor of death anxiety ($\beta = -0.36$, p < .05).

Discussion

This study examined social support and its connection to body image and death anxiety among elderly people in Yazd City, Iran. It also explored how participants' demographics (age, gender, marital status, and economic status) related to these variables.

The findings showed that support from family, friends, and overall social support had a negative correlation with death anxiety. In simpler terms, greater social support meant lower death anxiety. Conversely, a positive relationship emerged between death anxiety and body image. This means people with more negative body image tended to have higher death anxiety.

Age did not significantly influence the research variables. Social support dimensions weren't linked to body image, but support from friends did predict lower death anxiety. Men scored higher in friend support compared to women. Marital status (single vs. married) had no significant impact on the variables.

Financial situation played a role. People with better economic status had higher levels of family, friend, and total social support. Additionally, the group with lower economic status had higher death anxiety compared to the moderate-income group.

These results align with previous studies (19, 30) suggesting that receiving attention and support, especially from family and children, can reduce death anxiety in older adults. Research indicates that emotional support has a stronger correlation with death anxiety compared to practical or informational support. Close relationships seem to act as a buffer, calming anxieties about death. In other words, social support can lessen depression, frustration, financial worries, and physical concerns among seniors, ultimately improving their quality of life, satisfaction, and hope (31).

Variable		Frequency	Percent
Gender	Male	112	56
	Female	88	44
Education	Illiterate	61	30.50
	Primary school	80	40
	Secondary school	20	10
	High school diploma	24	12
	Bachelor's and higher	15	7.5
Marital status	Single	4	2
	Married	162	81
	Divorced	3	1.5
	Widowed	31	15.5
Economic status	Good	25	12.5
	Moderate	149	74.5
	Weak	26	13
Occupation	Employee	9	4.5
-	Worker	12	6
	Self-employed	27	13.5
	Housekeeper	77	38.5
	Retired	59	29.5
	Income without work	16	8
Housing status	Tenant	22	11
5	Owner	178	89
Living type	With spouse	148	74
	Alone	22	11
	With children	22	11
	With other relatives	8	4

Table 1. Demographic characteristics of the participants (n = 200)

Table 2. Descriptive of continuous variables (N = 200)

Indicator	Mean	Standard deviation	Maximum	Minimum	Skewness	kurtosis
Family support	29.53	4.82	10	40	-0.54	0.75
Friends' support	24.16	4.53	11	34	-0.30	-0.02
Others' support	28.57	3.75	17	40	-0.03	-0.007
Total social support	82.27	11.01	44	109	-0.26	-0.10
Death anxiety	6.07	4	0	15	0.34	-0.54
Body image	31.66	11.17	19	74	1.15	1.26
Age	66.08	6.30	60	94	1.43	1.25

Chalise et al., found a link between social support and mental well-being, including feelings of loneliness. In many countries, including Iran, old age is often associated with decreased physical and mental strength, social isolation, and loneliness (32). Regarding the intimacy dimension of social support, it is argued that people with close relationships tend to have better health. Also, it is suggested that having strong bonds with others is a crucial factor in preventing suicide attempts and mental health issues like depression (33). Close, trusting relationships are beneficial based on intimacy patterns. According to Cohen, the belief that others will offer help and support during stressful situations can positively impact psychological well-being and lead to higher mental wellbeing (34).

The fear of death encompasses various anxieties, including fear of a painful death, dying alone, leaving

loved ones behind, unfulfilled goals, and the unknown after death. Contemplating dying alone or experiencing sadness and grief at the time of death can heighten death anxiety. Therefore, it's reasonable to assume that people with broader social networks are less afraid of dying alone. They also know they have people to help them if they fall ill.

The study did not find a significant association between social support and body image. Research points to the role of cultural norms in body image perception among older adults. Evidence suggests that negative body image is more prevalent in women than men, with women generally being more dissatisfied with their physical appearance. Social support, along with body image, significantly predicts life satisfaction. However, body image plays a more prominent role in marital satisfaction (35).

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Variable	Labels	Family support	р	Friends' support	р	Others' support	р	Total social support	р	Body image	р	Death anxiety	р
Gender	Male	30.05 (4.18)	NS	24.85 (4)	<0.05 28.66 (3.39)	NS	83.56 (9.08)	NS	32.47 (11.51)	NS	5.78 (3.78)	NS	
	Female	28.86 (5.47)	IND	23.29 (5.01)	<0.05	28.46 (4.18)	IND	80.62 (12.93)	IND	30.63 (10.69)	IND.	6.44 (4.27)	183
Marital	Single	29.03 (5.98)	NS	23.68 (4.69)	NS	28.45 (3.75)	NS	81.16 (11.87)	NS	31.92 (13.12)	NS	6.37 (4.33)	NS
status	Married	29.65 (4.51)	143	24.28 (4.50)	145	28.60 (3.76)	140	82.53 (10.82)	110	31.60 (10.70)	IND	6 (3.94)	IND
Economic	Weak	26.92 (6.12)		23.65 (6.12)		27.11 (3.30)		77.69 (11.30)		32.27 (14.66)		7.73 (4)	
status	Moderate	29.58 (4.54)	< 0.01	124.05 (4.32)	NS	28.50 (3.69)	$<\!0.01$	82.13 (10.67)	< 0.01	1 31.59 (10.53)	NS	5.69 (3.81)	< 0.05
_	Good	31.96 (3.53)		25.40 (5.08)		30.52 (3.88)		87.88 (10.71)		31.48 (11.19)		6.60 (4.30)	

Table 3 . Mean (standard deviation) of Social Support, Body Image, and Death Anxiety based on gender, marital status and economic Status

Table 4. Correlation matrix between continuous variables (N =200)

		1	2	3	4	5	6	7
1	Family support	1						
2	Friends' support	**0.51	1					
3	Others' support	**0.66	**0.50	1				
4	Total social support	**0.87	**0.81	**0.84	1			
5	Death anxiety	*-0.18	-0.07	**-0.29	**-0.20	1		
6	Body image	-0.08	-0.09	-0.14	-0.12	**0.19	1	
7	Age	-0.01	-0.07	0.02	-0.03	-0.12	0.002	1

** p < 0.01, * p < 0.05

Table 5. Regression analysis of social support in predicting death anxiety

Predictive variables	Non-standard coefficients		Standard coefficients		
	В	Standard deviation	eta coefficient	t	р
Constant	14.28	2.17	-	6.59	0.001
Family support	-0.006	0.08	-0.007	-0.08	0.94
Friends' support	-0.09	0.07	-0.10	-1.28	0.20
Others' support	-0.36	1	-0.34	-3.58	0.001

It seems that seniors' physical appearance doesn't affect the social support they receive from their community. In other words, how elderly people look doesn't influence whether community members provide them with social support. Undoubtedly, seniors' life experiences and lifelong social networks with peers play a more significant role in the social support they receive.

This study showed that men scored higher in friend support compared to women. This finding might be explained by men typically having larger social networks due to their more extensive work-related activities, leading to more friendships.

The link between good socioeconomic status and higher social support can be explained by the fact that individuals with higher socioeconomic status often have better physical and mental health, hold higher job positions, and are more involved in society.

The association between death anxiety and lower economic status can be explained from several angles. One reason is that financial hardship is linked to the fear of dying from chronic illnesses or diseases with expensive treatments. Another point is that both poor economic status and death anxiety can be influenced by other factors such as mental health conditions (e.g., depression). Depression can not only cause disability but also increase negative thoughts about death in older adults.

Conclusion

This study highlights the importance of social support in reducing death anxiety among older adults. Interventions aimed at strengthening social connections and promoting healthy aging practices may be beneficial in this population. Further research is needed to explore the complex interplay between social support, body image, and death anxiety in older adults from diverse backgrounds.

Study limitations

This study has limitations. The cross-sectional design precludes establishing causal relationships between variables. Future research using longitudinal designs could address this limitation. Additionally, the study sample was drawn from a single city in Iran, potentially limiting generalizability to other populations. Future studies with larger, more diverse samples are warranted.

Conflict of interests

The authors declare no conflict of interests regarding this research.

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Authors' Contribution

All authors conceived and designed the study, collected the data, performed the data analysis, drafted the manuscript, and critically reviewed and approved the final version of the article. All authors agree to be accountable for all aspects of the work ensuring its accuracy and integrity.

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