

Predictors of Thantophobia among Community Dwelling Older Adults

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Abstract

Study's purpose: To assess predictors of Thantophobia (death anxiety) among community dwelling older adults. **Methodology:** A descriptive study conducted at X Village, was used. The Study sample was selected purposively, composed of 123 older adults. A structured interview questionnaire to assess older adults demographic characteristics and medical history. Death anxiety scale was used to assess Thantophobia. The daily spiritual experience scale was used to assess spirituality. The life satisfaction questionnaire-11 (LiSat-11) was used to assess satisfaction with aspects of life. **Major results:** Thantophobia was high among 31.7% of the studied older adults. Statistically significant positive relations were found between thanatophobia and women, widowhood and having chronic diseases. Otherwise negative relation between it and spirituality and life satisfaction (LS). **Clinical implications:** Thantophobia and many predictors were identified among the studied older adults living in the community so, identification, evaluation and control of predictors affecting death anxiety, is important to reduce the burden of this problem in daily life of older adults.

Keywords: Thantophobia, Death anxiety (DA), Predictors, Community dwelling older adults, Life satisfaction (LS), Spirituality

Introduction

Aging can be defined as a gradual, multifactorial, time-dependent process leading to the loss of function, biological and physical damage, and the onset of multiple age-related diseases. Aging progressively affects most regulatory mechanisms due to the hierarchical organization of living systems (Zhavoronkov, et al., 2018). The percentage of older adults in developing countries tends to be small, although numbers are often large. In the year 1990, there were more than 280 million people belonging to the age 60 years or over in developing regions of the world, and 58% of the world's older adults were living in less-developed regions (World Health Organization, 2019). The central Agency for Public Mobilization and Statistics reported that the older adults frequency in Egypt in 2017 reached 6.36 million people, which accounts for about 6.4% of the total population. This percentage is expected to reach 11.5 % of the total Egyptian population by 2031 (Fadila, et al., 2018). Thantophobia (death anxiety) is a multifaceted construct. It was defined and described the different ways in which it is manifested. Thantophobia has been conceptualized as fear of death of oneself or fear of death of others. Many predictors influence

Thanatophobia such as age, sex, culture, religion, physical health, mental health, spirituality and life satisfaction. Aging is a stage in developmental psychology and associated with various medical problems, loss of loved ones, and deteriorating cognitive abilities. Old-aged individuals being nearer to the end of life may experience death anxiety or death fear (Dadfar, et al., 2016). Death and life after death are undoubtedly one of the most important issues in all divine religions. Death is perceived as a threat by many people because of its highly ambiguous significance. Anxiety and fear of death are common among all cultures (Jenaabadi, 2018), that negatively affects our intellectual security. Fear of death is an emotional feeling that stimulates psychological stress. As an inevitable, unknown biological reality, death causes severe stress, particularly among elders. Hence, due to our instinct thinking about death is unavoidable. However, suffering from a chronic disease or spending the last days of life bring us back to the idea of death, which in turn causes more fear (GhanbarpoorGanjari et al., 2020). People with intense feeling of Thanatophobia usually found themselves uncomfortable and qualmish in the threatening situations, though their lives are not in a real threat. In most cases, thanatophobic people may tremble, get numb, flutter, perspire, lose their breath and have their mouth dry because of this phobia which may have a negative effect on their daily living (Wani, 2018). Spirituality is the essence of a human being: The meaning of life, feeling of connectedness to the transcendental phenomena such as the universe or god. This connectedness may or may not be part of any religions. It is also part of comprehensive palliative care, defined by the World Health Organization. An individual's spiritual well-being (SWB) is a feeling of one's contentment that stems from their inner self and is directly related to their quality of life (QoL) (Phenwan, et al., 2019). Life satisfaction is the degree to which a person positively evaluates the overall quality of his/her life as-a-whole. Also included the following under life satisfaction: desire to change one's life; satisfaction with past; satisfaction with future; and significant other's views of one's life." life-satisfaction is one of the pointers of 'apparent' quality of life along with other indicators of mental and physical health. It is referred as an assessment of the overall conditions of existence as derived from a comparison of one's aspiration to one's actual achievement (Prasoon, Chaturvedi 2016).

Literature review

The prevalence of death anxiety among older adults vary whereas, relatively high prevalence was reported in cross-sectional study with descriptive-analytical design carried out in Neyshabur city, Iran by Taghiabadi et al. (2017) demonstrated that the mean death anxiety score was 56.93 ± 24.5 indicating a medium level of death anxiety among participants. On the other hand a cross-sectional study in Panjab, Pakistan by Saini et al. (2016) which examined death anxiety and associated factors in older adults people, reported that the mean score of death anxiety was 22.7 ± 4.69 , which indicates a moderate level of death anxiety. Previous study carried out in Ahwaz city by Roshani (2012) found that the mean death anxiety score was 122.775 ± 19.845 , another study in Hyderabad, India by Godishala and Swath. (2014) showed that 47% of the older adults had mild death anxiety, and 52% had moderate death anxiety. Furthermore, studies that assess Thanatophobia and its predictors among community dwelling older adults in our country are limited; hence this study was conducted to assess predictors of Thanatophobia among community dwelling older adults at X village.

Method

Study Design and Ethical Consideration

A descriptive study design was utilized to conduct the current study from May 2020 up to the end of September 2020 at X village of X district in X governorate in X country. The study was approved by the Research Ethics Committee (REC) and the Postgraduate Committee of the Faculty of Nursing at X University. Verbal consent was obtained from the patients after a description of the purpose of the study.

Sample

The sample composed of 123 community dwelling older adults from the above mentioned setting who were 60 years old and more than, able to communicate, agree to participate in the study, weren't having malignant diseases, last stage diseases or psychiatric problems(Reported by elderly or care giver).

Sample size calculation

The Sample size was calculated based on prevalence of Death anxiety among older adults which was 60% (**John et al, 2016**), and the number of older adults in X village, X District, X Governorate was 355 elderly (**CAPMAS, 2017**) using software EPI- Info Package, with confidence 95% and power of the test 80%, the sample size was calculated to be 123 older adults.

Tool of data collection

Four tools were utilized to collect the required data include: Tool I: A structured interview questionnaire: It was developed by the researcher to collect the necessary data for the study. It consisted of two parts. Part 1: Demographic characteristics of the older adults: (1-9) questions. This part was used to assess demographic characteristics; which included age, gender, marital status, educational level, previous working, current working, monthly income, the source of income and living condition. Part 2: Medical history of the older adults: It included history of chronic diseases. As: hypertension, diabetes, respiratory system diseases, heart disease, liver disease, digestive system diseases and kidney diseases.

Tool II:Death anxiety scale

Adapted from (**Conte et al., 1982**)

It is most commonly assessed using a simple 15-item self-report questionnaire using a Likert response format, although many revisions and extensions of the measure have permitted a broader and more adequate assessment of distress concerning human mortality.**Scoring:** The Death Anxiety Questionnaire (DAQ) by Conte, Weiner, and Plutchik (1982) was translated into the Arabic language by the researchers using a back-translation method. The questionnaire consisted of 15 items in three rating scales with a score from 0-2; 0 was no anxiety and 2 was the most anxiety. The scores ranged from 0-30 and considered high if the percent score was 60% (≥ 18) or more, and low if less than 60% (< 18).

Tool III:The Daily Spiritual Experience Scale

Adapted from (**DSES**) (**Underwood, Teresi2002**)

The Daily Spiritual Experience Scale (DSES) is a 16-item self-report measure designed to assess ordinary experiences of connection with the transcendent in daily life. It includes constructs such

as awe, gratitude, mercy, sense of connection with the transcendent and compassionate love. It also includes measures of awareness of discernment/inspiration and a sense of deep inner peace. Originally developed for use in health studies, it has been increasingly used more widely in the social sciences, for program evaluation, and for examining changes in spiritual experiences over time.

ScoringDSES: is a sixteen-item self-report scale that developed by Underwood and Teresi to assess ordinary experiences of connection with the transcendent in daily life. The DSES was developed using extensive qualitative testing in a variety of groups, which has helped its capacity to be useful in a variety of settings. It includes constructs such as awe, gratitude, mercy, sense of connection with the transcendent and compassionate love. It also includes measures of awareness of discernment/inspiration and a sense of deep inner peace. The first 15 items are answered on a Likert type scale, with scores ranging from 1 (many times a day) to 6 (never or almost never). Item 16 “in general, how close do you feel to God?” is answered on a 4-point scale (1 = not at all to 4 = as close as possible). The score of item 16 must be inverted to maintain the same direction as the other items. The total score is obtained by summing the scores of the 16 items, which can vary from 16 to 94. Score between 16 to 36 indicted relatively poor level of DSE, score between 37 to 56 indicted moderate level of DSE, score between 57 to 76 indicted high level of DSE, and score between 77 to 94 indicted very high levels of DSE.

Tool IV: The Life Satisfaction Questionnaire-11 (LiSat-11)

Adapted from (Fugl-Meyer et al., 2002)

The Life Satisfaction Questionnaire-11 (LiSat-11) assesses how satisfied an individual is with different aspects of life. LiSat-11 consists of the global item “Life as a whole” and the following 10 domain-specific items: vocation; economy; leisure; contacts with friends and acquaintances; sexual life; activities of daily living (ADL) (ability to manage self-care in dressing, hygiene, transfers); family life; partner relationship, somatic health; and psychological health. The items are rated according to 6 response options: 1=very dissatisfying; 2=dissatisfying; 3=rather dissatisfying; 4=rather satisfying; 5=satisfying; and 6=very satisfying. Higher scores indicate a greater level of perceived satisfaction. **Scoring:** The LiSat-11 (11-item Life Satisfaction Questionnaire) assesses global satisfaction with life in one item and domain-specific satisfaction in eleven items on six response levels, from ‘very satisfied’ (response option 6) to ‘very dissatisfied’ (response option 1). The 11 items can also be dichotomized as ‘satisfied’ (very satisfied and satisfied, response option 5 and 6) and ‘not satisfied’ (from rather satisfied to very dissatisfied, response option 1-4). The LiSat-11 was considered not satisfied if the score was (11-44) and satisfied if the score was (45-66). Additionally, the scores of the items were summed-up and the total divided by the number of the items, giving a mean score.

Statistical analysis

Data entry and statistical analysis were done using SPSS 22.0 statistical software package. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables. The Cronbach alpha coefficient was calculated to assess the reliability of the developed tools through their internal consistency. Qualitative categorical variables were compared using a chi-square test (X^2). The Spearman rank correlation was used for assessment of the interrelationships among quantitative variables and ranked ones. In order to identify the independent predictors of death anxiety scores multiple linear regression analysis was used after testing for normality, and homoscedasticity, and analysis of variance for the full regression

models were done. Statistical significance was considered at p-value <0.05.

Results

Among 123 older adults, the mean age was 68.71 ± 6.08 , ranged between 60-91 yrs, 64.2 % of them were aged between 60 and 70 years. The older adults were male, married, illiterate, employee and had sufficient income (52.0 %, 73.2%, 28.5 %, 47.2 % and 46.3%) respectively. According to medical history, 69.9% of the studied older adults were having chronic diseases (**Table 1**). Concerning death anxiety level, the total mean score of death anxiety was 14.26 ± 6.12 , death anxiety was low in 68.3% of the studied older adults and high in 31.7% of them (**Figure 1**). Regarding to the total daily spiritual experience, the total daily spiritual experience was moderate among 33.3% of the older adults, high among 38.2% of them, while every high among 28.5% of them. According to life satisfaction, 58.5% of the studied older adults were satisfied with their life and 41.5% of them weren't satisfied with their life (**Table 2**). Also, according to the relation of death anxiety with its predictors, there was a statistically significant relations between death anxiety, marital status at P value=.017, gender at P value=.001* and having chronic diseases at P value=.046 (**Table 1**). **Table 3** expounds that there were positive correlation between spirituality and life satisfaction. On the other hand, spirituality and life satisfaction had negative correlation with death anxiety.

Discussion

Based on the findings of the current study, nearly two thirds of the older adults were having low level of death anxiety and only about one third of them were having high level of death anxiety. This might be due to that personal and cultural views of Middle East society about the experience of death (no one live forever, the death is inevitable) and its subsequent anxiety. Central to the understanding of the older adults in rural areas perspective on death and dying are the cultural values and beliefs related to religion, family, and interpersonal harmony (relationship with other people). In old age, older adults are temporally closer to death and probably encounter more frequent reminders of their mortality than their younger counterparts; it may be that they have come to some level of acceptance of this inevitable reality, at least at a conscious level. This result is similar to previous study that was conducted by Parker (2013) in the USA who found that death approach acceptance is the most common attitude reported by older people. Similarly, Balasubramnaian et al. (2018) in London UK who reported that death anxiety peaks in middle age and decreases with increasing age. On the other hand, this result is in contrast with Mohammad pour et al. (2018) in Gonabad, Iran who found that death anxiety is a common phenomenon among older adults strongly associated with the aging perceptions, which at high levels may lead to maladaptation and depression. This difference might be related to cultures, spirituality and environments differences. It is evident from this study that death anxiety was high in older adults who were having chronic diseases. Given that chronic diseases threaten people's life and do not have any definite treatments, some degree of stress and death anxiety is expected in this group of people compared to others. Also this might be because that psychic stress associated with chronic diseases and the common concept that patient with chronic diseases may exposed to face death suddenly and unexpectedly. The present finding is in agreement with the result of the study carried by Assari & Lankarani (2016) in Michigan, Ann Arbor, USA and Ghanbarpoor Ganjari et al., (2020) in Rasht who found that death anxiety was high in older adults who were having chronic diseases than others. Additionally, the present findings revealed that older adults' women were having higher level of death anxiety in comparison to men; this might

be due to that women experience a secondary spike of Thanatophobia in their 50s after menopause (Milosevic, 2015). These findings are in accordance with previous studies, which demonstrated that death anxiety level is higher in women than men such as Taghipour et al. (2017) in Iran and Daradkeh&FouadMoselhy.(2011) in Kingdom of Bahrain. In contrast with the current study, Assari&Lankarani.(2016) in the United States who found that there was no significant difference in terms of death anxiety between men and women. Moreover, the current study indicated that there is a statistically significant relation between death anxiety and marital status, in which death anxiety was low in married elderly. As marriage has an important role in providing communication, intimacy, calm and psychological stability hence, anxiety generally reduces. This finding is in congruent with MacLeod et al. (2016) in New Zealand and MehriNejad et al. (2017) in Ahvaz, Iran who found that death anxiety level was high in single persons and low in married persons. Finally, concerning the correlation between death anxiety, spirituality and life satisfaction, the current study findings revealed that spirituality and life satisfaction have a negative correlation with death anxiety. This means that with increasing life satisfaction and spirituality, the level of death anxiety decrease. As well the awareness that death is inevitable often brings renewed urgency to the spiritual quest and satisfaction (The conversation, 2016). Additionally it might be because high spirituality directly enhance satisfaction which promote overall physical, mental well-being, mood, religious and spiritual practices may directly influence several biological systems, including the sympathetic nervous, endocrine, and immune systems Subsequently death anxiety level low (Budhiraja&Midha, 2017). This point is confirmed with Mansori et al.(2017) in, Varanasi, India and Sharma et al.(2019) in Tehran, Iran, Jenaabadi. (2018) in Iran, Mahboub (2014) in Kermanshah, Iran and Khezri et al.(2015) in Bushehr who revealed that spirituality was negatively correlated with death anxiety. It suggests that individuals with high spirituality have shown low level of death anxiety. Also Taghiabadi et al.(2017) in Isfahan, Iran found that life satisfaction is inversely associated with death anxiety

Limitations of the Study

The limitation of the study was that this type of studies has not been adequately addressed in middle east and the Arab countries despite it being covered a lot in East Asian countries.

Conclusion

Death anxiety was high among slightly nearly one third of the studied older adults and low among more than two thirds of them. Many predictors of DA were identified among older adults as being women, widow and had chronic diseases. Ultimately, spirituality score and life satisfaction was statistically significant independent negative predictor of death anxiety score.

Recommendation

Based on the results of this study, engaging the older adults in their family life, supportive groups and friends can help them to reach adequate social support, life satisfaction and prevent DA. Encourage older adults in meditation, relaxation techniques, spiritual and religious programs can enhance their feeling of spirituality, life satisfaction and prevent DA. Further researches are suggested to explore the effectiveness of educational programs on spirituality and satisfaction of elderly suffering from DA. Also, further researches on the determinants of death anxiety in the older adults and the development of a comprehensive care plan to reduce this anxiety among Egyptian older adults are recommended.

Declaration of Conflicting Interests

The Author(s) declare(s) that there is no conflict of interest.

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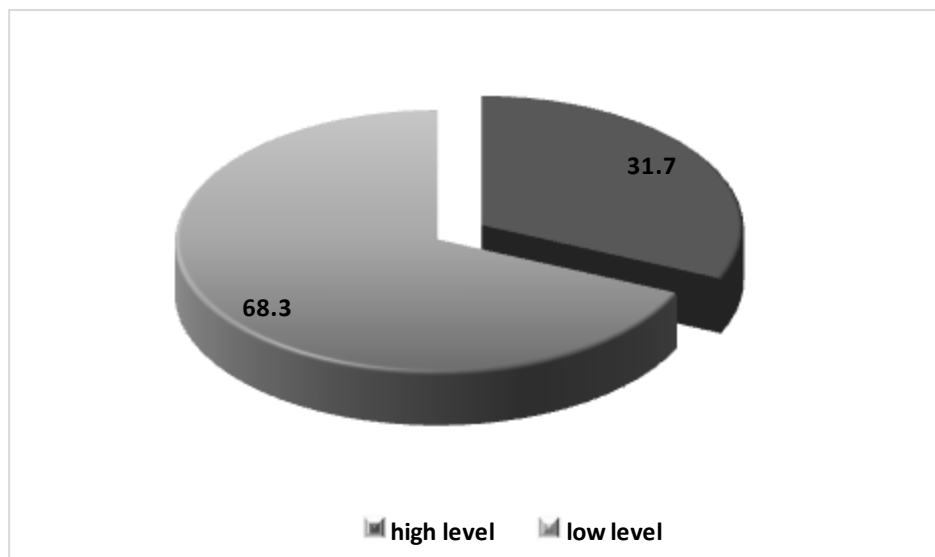
Table (1): Relation between older adults death anxiety, their demographic characteristics and medical history

Demographic characteristics	Death anxiety				X ² test	p-value
	Low (n= 84)		High (n=39)			
	No.	%	No.	%		
Age:						
60-69	54	64.3	25	64.1		
70-79	26	31.0	9	23.1	2.945	.229
80+	4	4.8	5	12.8		
Gender:						
Male	58	69.1	6	15.4		
Female	26	30.9	33	84.6	12.25	.001*
Marital status:						
Married	68	81.0	22	56.4	8.187	.017*
Divorced	5	6.0	5	12.8		
Widow	11	13.1	12	30.8		
Education:						
Illiterate	20	23.8	15	38.5		
Read/write	17	20.2	4	10.3		
Basic	9	10.7	3	7.7	6.179	.299
Preparatory	0	.0	1	2.6		
Intermediate	17	20.2	7	17.9		
University / Postgraduate	21	25.0	9	23.1		
Job (before retirement):						
Craftsman	6	7.1	4	10.3		
Farmer	20	23.8	7	17.9	3.363	.499
Tradesman	5	6.0	0	.0		
Employee	38	45.2	20	51.3		
Housewife	15	17.9	8	20.5		
Current occupation:						
Working	11	13.1	4	10.3	2.199	.654
Not working	73	86.9	35	89.7		
Income:						
Insufficient	42	50.0	14	35.9		
Sufficient	35	41.7	22	56.4	2.426	.297
Saving	7	8.3	3	7.7		

Living with whom: Family alone	68 16	81.0 19.0	30 9	76.9 23.1	3.267	.605
Having chronic diseases: yes No	54 30	64.3 35.7	32 7	82.1 17.9	3.997	.046*

(*) Statistically significant at $p < 0.05$

Figure (1): Total death anxiety among participants in the study sample (n=123)



Total mean score of death anxiety 14.26 ± 6.12 Mean \pm SD

Table (2): Total daily spiritual experience and life satisfaction among older adults in the study sample (n=123)

Predictors	No.	%
Total daily Spiritual Experience		
Moderate spirituality	41	33.3
High spirituality	47	38.2
Very high spirituality	35	28.5
Life-Satisfaction	No	%
Satisfied	72	58,5
Not satisfied	51	41,5
Total mean score of predictors	Mean \pm SD	
Spirituality	67.43 \pm 11.85	
Life satisfaction	43,81 \pm 10,25	

Table (3): Best fitting multiple linear regression model for older adults death anxiety score

Items	Unstandardized Coefficients	Standardized Coefficients	t-test	p-value	95% Confidence Interval for B
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	B	Std. Error				Lower	Upper
Constant	2.865	.239		11.993	.000	2.392	3.338
Age	-.002	.041	-.002	-.043	.966	-.043	.079
Gender	0.84	0.15	0.32	5.77	.000	0.55	1.13
Marital status	.034	.035	.058	.973	.333	-.035	.104
Education level	.016	.013	.071	1.287	.201	-.009	.041
Occupation before retirement	-.022	.022	-.060	-1.010	.315	-.066	.021
Current occupation	-.049	.078	-.034	-.629	.531	-.203	.105
Income	-.004	.040	-.006	-.102	.919	-.084	.076
Living with whom	-.047	.064	-.041	-.744	.458	-.174	.079
Having chronic disease	-.019	.072	-.019	-.270	.787	-.162	.123
No. of diseases	.041	.034	.087	1.212	.228	-.026	.108
Spirituality	-.298	.050	-.502	-5.964	.000	-.397	-.199
Satisfaction	-.370	.079	-.370	-4.683	.000	-.527	-.213

R-square=0.754 Model ANOVA: F=28.036, p<0.001

Predictors: age, gender, marital status, income, chronic diseases, education level, No.of chronic disease, satisfaction and spirituality

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