*Assiut Scientific Nursing Journal*
*http://asnj.journals.ekb.eg*
*http://www.arabimpactfactor.com*
*http://olddrji.lbp.world/indexedJournals.aspx*
*DOI: 10.21608/ASNJ.2022.131582.1353*

# Investigating The Role of Psychological Resilience and Self Esteem In Death Anxiety among Older Adults

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## Abstract
As one of the most critical periods of life, aging is associated with many challenges, including death anxiety. A low level of psychological resilience could lead to poor mental health, precipitating death anxiety. Self-esteem serves as a buffer against death anxiety. **Aim:** The current study intended to investigate the role of psychological resilience and self-esteem in death anxiety among older adults. **Subjects and Method:** A descriptive correlational design was used, which was conducted in five Geriatric clubs affiliated to Port Said city districts, Egypt. The studied subjects compromised a sample of 120 older adults. **Tools: 1)** Death Anxiety Scale (Thanatophobia), **2)** The Connor-Davidson Resilience Scale. **3)** Rosenberg self–esteem scale, in addition to a personal data questionnaire, was used. **Results:** The majority of older adults in this study showed a high level of death anxiety, psychological resilience, and self-esteem. **Conclusion:** It was verified that; psychological resilience and self-esteem have a significant and negative correlation with death anxiety among older adults. **Recommendations:** Planning and implementing psycho-therapeutic interventions for older adults to reduce death anxiety by utilizing strategies to promote psychological resilience and self-esteem. Besides that, further studies must be carried out on the determinants of death anxiety in older adults and the development of a comprehensive program to reduce this anxiety among Egyptian older adults.

***Keywords: Death anxiety, Elderly, Psychological resilience & Self-esteem.***

## Introduction
The number and proportion of adults above the age of 60 are increasing. There were one billion persons aged 60 and up in 2019. By 2030, this number is predicted to reach 1.4 billion, and by 2050, it will reach 2.1 billion. This increase is unprecedented, and it is anticipated to intensify in the future decades, especially in emerging countries. **(World Health Organization, 2019)**.

Elderly people face various challenges in their daily lives, mainly due to the inevitable and unavoidable process of age-related decline **(Taghiabadi et al., 2017)**. One of the most critical aspects of elderly health is the psychological dimension, requiring special attention and disorder prevention. Older adults are vulnerable to mental illness, and approximately 15%25% of them have serious psychological problems **(Bakhtiyari et al., 2017)**.

Death anxiety is ubiquitous in all societies, but when confronted with death-related events, older persons may be more prone to anxiety and panic than their younger counterparts **(Vida et al., 2014).** Regardless of culture or religion, death fear is an essential part of existence. It's multifaceted and can be explained using a variety of theoretical frameworks. Death is an unavoidable event that produces a loss of security and an increase in dread **(Alkozei et al., 2019).** It reflects the final event of life's thoughts, anxieties, and emotions **(Yochim, 2017).** Individual well-being can be harmed by death anxiety. **(Robah, 2017).**

The ability to adapt well in the face of adversity, trauma, tragedy, threats, or even large levels of stress is referred to as resilience **(American Psychological Association, 2014).** When older persons suffer everyday stress from physical and mental loss as they age (e.g., changes in cognitive functioning, aging-related degradations in physical fitness) dysfunctional family connections, and increased isolation from society, resilience plays a vital role **(Chung et al., 2021).** Many empirical studies have discovered that indicators of mental ill-health, such as depression, anxiety, and negative emotions, are negatively correlated with resilience, while indicators of mental health, such as life satisfaction, subjective well-being, and positive emotions, are positively correlated **(Huet al., 2015)** Furthermore, some research has revealed that resilience can be an important factor in promoting self-esteem **(Liu et al., 2014)**.

Self-esteem is defined as a person's subjective assessment of his own worth as a person **(Orth& Robins, 2014).** Self-esteem indicates a person's mental health, mature personality, and adaptability.

Furthermore, low self-esteem is linked to a lack of self-worth, a lack of life satisfaction, loneliness, depression, and anxiety **(Chen et al., 2018).** Self-esteem is a psychological construct that is closely related to death anxiety. There is plenty of evidence that self-esteem acts as a buffer against death anxiety. People with low self-esteem are more likely to be anxious in the face of death, whereas threats to self-esteem cause death anxiety, and self-esteem defense reduces death anxiety **(Hiyoshi et al., 2017)**.

## Significance of the study:

Elderly populations have a high prevalence of death anxiety because they have many physical problems, chronic diseases, physical disabilities, retirement, and loneliness feeling **(Birgit et al., 2018; Menzies & Menzies, 2020)**. Anxiety and depression were all significantly mediated by resilience **(Yildirim & Solmaz, 2020)**. Resilience can play a decisive role in the prevention and reduction of psychological disorders **(Bitarafan et al., 2018)**. Self-esteem and resilience have a symbiotic relationship **(Liu et al., 2021).** Anxiety-Buffer Hypothesis posits that self-esteem, viewed as an anxiety buffer, can reduce the detrimental effects of death anxiety **(Greenberg et al., 2008).** Despite the significant frequency of death anxiety among the elderly, the majority of death anxiety research has been undertaken in nursing homes or hospitals. Therefore, the present study aimed to study death anxiety among older adults in geriatric clubs to investigate factors that may affect the severity of death anxiety as psychological resilience and self-esteem**.**

**Aim of the study:**

This study is to investigate the role of psychological resilience and self-esteem in death anxiety among older adults.

## Subjects and Method

***Specific objectives:***

1. Measure older adults' levels of death anxiety.
2. Assess older adults' levels of psychological resilience.
3. Evaluate older adults' levels of self-esteem.
4. Find out the relationship between psychological resilience, self-esteem, and death anxiety among older adults.

**Research Questions:**

The research questions for which the researchers tried to find out the answers were :

1. What are the levels of death anxiety among older adult in Port Said city ?
2. What are the levels of psychosocial resilience among older adult in Port Said city?
3. What are the levels of self-esteem among older adult in Port Said city?
4. Is there a relationship between psychological resilience, self-esteem, and death anxiety among older adult?

**Research design**

A descriptive correlational design was applied for the contemporary study.

**Setting**

The present study was conducted in five Geriatric clubs affiliated to Port Said City districts, namely El Wafaa Geriatric Club with a total number of 200 older adults, 210 in El-Mastakabal Geriatric Club, 298 in Elzohor Geriatric Club, 210 in Red Crescent Society, and 322 totally in Ramsis Geriatric Club.

**Research Subjects**

The study participants encompassed a convenient sample of 120 older adults who attended previously mentioned Geriatric clubs at Port-Said city. They were chosen according to the following inclusion criteria:

- Aged from 60 years and more
- Both sexes
- Accept to participate in the study.

**Sample Size**

The sample size is calculated to detect a mean score of death anxiety in older adults with a mean of 12.65 and 5.15 standard deviation **(Zhang et al., 2019)**, with 1.0 absolute precision at a 95% confidence level. Using the UCSF computer software package **(Hulley et al., 2013)**, the required sample size is 105 patients. This was increased to 120 to compensate for an expected non-response rate of about 15%.

**Tools of Data Collection**

The Death Anxiety Scale, Connor-Davidson Resilience Scale, and Rosenberg self–esteem scale, along with a personal data questionnaire, were used to collect data for this study.

**Tool (I): Death Anxiety Scale (DAS):**

The Death Anxiety Scale is a self-administered questionnaire. The scale was developed by **Templer (1970)** in an English language and translated into the Arabic language by the researchers. It was used to measure the extent of death anxiety that person experiences. Some of the questions are prepared in a way that directly measures death anxiety and its related issues; the other questions measure events such as sudden diseases, speed of time passing, shortness of life, and fear of a painful death.

The scale consists of 15 items for the scoring system, and its answers are based on Yes and No options. Nine of the 15 items are scored on the appropriate option and six on the false. The total score of **DAS** ranged from 0 -15, with scores from 0 to 6 donating no death anxiety, score from 7 to 8 indicating a moderate level of death anxiety, and scores from 9 to15 denoting a high level of death anxiety.

**Tool (II): The Connor-Davidson Resilience Scale (CD-RISC-25):**

The Connor-Davidson Resilience Scale (CD-RISC-25) is a self-administered scale. It was developed by **(Connor & Davidson, 2003**) in the English language and transformed into the Arabic language by the researchers. The scale was designed to assess resilience. It contains 25 items that exhibit good psychometric properties. It includes items such as 'I am able to adapt when changes occur'. Higher scores are an indicator of high resilience. The CD-RISC had good internal reliability $\alpha = 0.89$.

**Intended for the scoring system,** The Connor-Davidson Resilience Scale has a 5-point range of responses: not at all (0), seldom true (1), sometimes true (2), often true (3), and virtually always true (4). (4). The scale is based on the subject's mood throughout the previous month. The total score ranges from 0 to 100, with higher scores indicating greater resilience.

**Tool (III): Rosenberg self–esteem scale:**

It is a widely used self-report instrument. It was developed by **Rosenberg (1979)** in the English language. The researcher used an Arabic version of (RSS) translated by **Abusaad (2011)**. It was used for evaluating individual self-esteem by asking the respondents to reflect on their current feelings. The scale is composed of 10 items. Items are prepared to directly measure issues like (I am satisfied with myself, at times I think I am no good at all, I feel that I have a number of good qualities). The Arabic version has confirmed a high internal consistency as Cronbach's α was ranged between 0.85 to 0.88.

**Intended for a scoring system,** all items were answered utilizing a 4-point scale that ranged from strongly agree (1) to strongly disagree (4). Items 2, 5, 6, 8, and 9 are reverse scored. Higher scores indicate higher self-esteem.

Additionally, **Personal Data Questionnaire was utilized;** this structured interview questionnaire was established by the researchers in an Arabic linguistic personal data questionnaire**.** It was used to collect data about the personal characteristics of the studied older adults. It is comprised of two parts. The first part was personal characteristics. It included nine items as age, sex, educational level, marital status, job status, presence of children, and income. The second part is medical health history. It included six items: the presence of medical disease, type of medical disease, its effect on daily activities, history of surgical operations, and psychiatric disorders.

**Tool validity and reliability:**

For the current study, the Validity of DAS **(Tool I)** and **CD-RISC-25 (Tool II)** was determined by a panel comprising seven experts who decided that the translated study tools were valid. A panel consisting of one professor and three assistant professors from the Psychiatric Nursing and Mental Health department, one professor, and two assistant professors from the Family & Community Health Nursing Department, Port Said University. They were requested to express their opinions regarding the lucidity, relevance, comprehensiveness, and construction of the translated tools. The required corrections and modifications were done accordingly. Also, the accuracy of translation was confirmed by using back translation into English which was done by three linguistic experts. The phase of proving the validity of the study tools continued for one month.

Reliability was established by assessing Cronbach's alpha coefficient. The tools were proved to be reliable as the tool **(1)** Measure the extent of death anxiety that person experiences confirmed a high internal consistency as Cronbach's α was 0.92. The tool's reliability **(2)**, namely, The Connor-Davidson Resilience Scale was acceptable as $\alpha = 0.87$, the phase of ascertaining the reliability of the study tools was conducted within one month.

**Pilot Study**

Pilot research was done on 10% of the sample, which consisted of 12 older persons. The goal of the pilot study was to assess the tools' clarity, application, and feasibility, as well as the time required to complete them. It also assisted in identifying any potential roadblocks or issues that could obstruct the data collection process. The pilot study's participants were not included in the main study's sample. From the first through the middle of October 2020, a pilot study was conducted.

**Fieldwork**

Approval of the Ethical Committee of the Faculty of Nursing, Port-Said University was obtained. an official letter was issued from the Faculty of Nursing, Port-Said University, and forwarded to the directors of Geriatric clubs to get their approval to carry out the study. Then, the research team attended Geriatric clubs requesting the directors' cooperation and permission to conduct the study after explaining the study objectives and duration. Subsequently, coordinate the suitable day and time of data collection based on older adults' higher attendance days. The data were collected over 2 days/ week (Sunday and Tuesday). The collection of data covered 10 weeks from the beginning of November 2020 to mid of January 2021.

The researcher attended Geriatric clubs from 2 to 7 pm. The data collection procedure was conducted utilizing a face-to-face interview method that was done on an individual basis and this was done in a private area to ensure discretion and confidentiality of the collected data. The researchers explained the purpose of the study and assured that all the

participant's information would be kept secret and their responses would only be used for the research purpose. All participants who meet the inclusion criteria and agree to participate were included. The research team used the constructed tools through personal interviews and each tool lasted from 20 to 25 minutes to be filled out depending on older adult' responses. Preventive measures were considered during data collection due to the spread of Covid 19. After the collection of data, participants were thanked and acknowledged by the researchers for their precious donations to the study.

**Administrative Design**

Preliminary, official letters were issued from the dean of the Faculty of Nursing to directors of Geriatric clubs in Port-Said city requesting their collaboration to carry out the study, after clarifying the aim of the study.

**Ethical Considerations**

Firstly the approval of the Ethical Committee of the Faculty of Nursing, Port- Said University, was obtained. Secondly, approval was obtained from Geriatric clubs, where the data were collected. Thirdly, a verbal agreement was obtained from the studied older adults afterward a plain overview of the intention of the study; fourthly, anonymity and voluntary participation in the study were guaranteed. Finally, confidentiality was affirmed for all participants in the study, and researchers confirmed that information would be used merely for the research purpose.

**Statistical Analysis**

The IBM SPSS software program version 20.0 was used to examine the data that was supplied to the computer. (IBM Corporation, Armonk, NY) Numbers and percentages were used to describe qualitative data. The Kolmogorov-Smirnov test was employed to ensure that the distribution was normal. Range (minimum and maximum), mean, standard deviation, and median were used to characterize quantitative data. The significance of the acquired results was determined at a 5% level of significance. Pearson coefficient was used to correlate two normally distributed quantitative variables, Chi-square test for categorical variables was used to compare between different groups, Fisher's Exact or Monte Carlo correction for chi-square was used when more than 20% of the cells had an expected count less than 5, and Regression was used to find the most independent/ affecting factor for death anxiety

## Results

**Table (1): Frequency& percentage distribution of studied older adults according to their personal characteristics (n = 120)**

| Q | personal characteristics | No. | % |
|---|---|---|---|
| **1** | **Sex** | | |
| | Male | 55 | 45.8 |
| | Female | 65 | 54.2 |
| **2** | **Age (years)** | | |
| | 60 – <65 years | 64 | 53.3 |
| | 65 – <70 years | 38 | 31.7 |
| | 70 years and more | 18 | 15.0 |
| **3** | **Level of education** | | |
| | Illiterate | 48 | 40.0 |
| | Basic education | 41 | 34.2 |
| | Secondary | 16 | 13.3 |
| | University | 15 | 12.5 |
| **4** | **Marital status** | | |
| | Single | 2 | 1.7 |
| | Married | 70 | 58.3 |
| | Divorced | 6 | 5.0 |
| | Widow | 42 | 35.0 |
| **5** | **Children** | | |
| | **Exist** | **114** | **95.0** |
| | Not Exist | 6 | 5.0 |
| **6** | **Number of children** | **(n = 114)** | |
| | 1 – 2 | 34 | 29.8 |
| | 3 – 4 | 59 | 51.8 |
| | More than 4 | 21 | 18.4 |
| **7** | **Fixed income** | | |
| | **Yes** | **91** | **75.8** |
| | No | 29 | 24.2 |
| **8** | **If there is a fixed income** | **(n = 91)** | |
| | Enough | 50 | 54.9 |
| | Not enough | 41 | 45.1 |
| **9** | **Source of income #** | **(n = 91)** | |
| | Pension | 70 | 76.9 |
| | Husband or father's pension | 19 | 20.9 |
| | Son or relatives | 3 | 3.3 |
| | Social institutions | 3 | 3.3 |
| | Others | 3 | 3.3 |

*#: More than one answer*

**Table (2): Frequency& percentage distribution of the studied older adults according to their medical history (n = 120)**

| Q | Medical history | No. | % |
|---|---|---|---|
| **1** | **Chronic diseases** | | |
| | **Yes** | **98** | **81.7** |
| | No | 22 | 18.3 |
| **2** | **If yes, what are[#]** | **(n = 98)** | |
| | Hypertension | 69 | 70.4 |
| | Diabetes | 57 | 58.2 |
| | Heart disease | 20 | 20.4 |
| | Chest diseases | 8 | 8.2 |
| | Bone diseases | 15 | 15.3 |
| | Others | 2 | 2.0 |
| **3** | **Effect of chronic diseases on activities of daily living** | **(n = 98)** | |
| | **Yes** | **86** | **87.8** |
| | No | 12 | 12.2 |
| **4** | **If yes** | **(n = 86)** | |
| | It made me partially dependent on others | 74 | 86.0 |
| | It made me completely dependent on others | 12 | 14.0 |
| **5** | **Major surgical operations** | | |
| | Yes | 46 | 38.3 |
| | No | 74 | 61.7 |
| **6** | **Psychiatric disorders** | | |
| | Yes | 18 | 15.0 |
| | No | 102 | 85.0 |

#: More than one answer

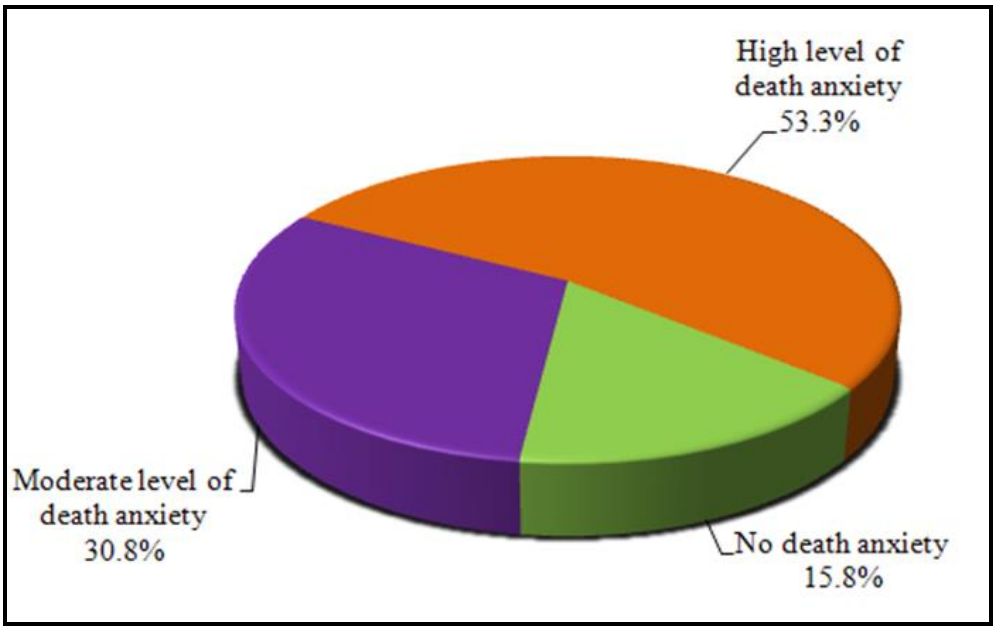


**Figure (1): Levels of death anxiety measured by the Death Anxiety Scale (DAS) among the studied older adults.**

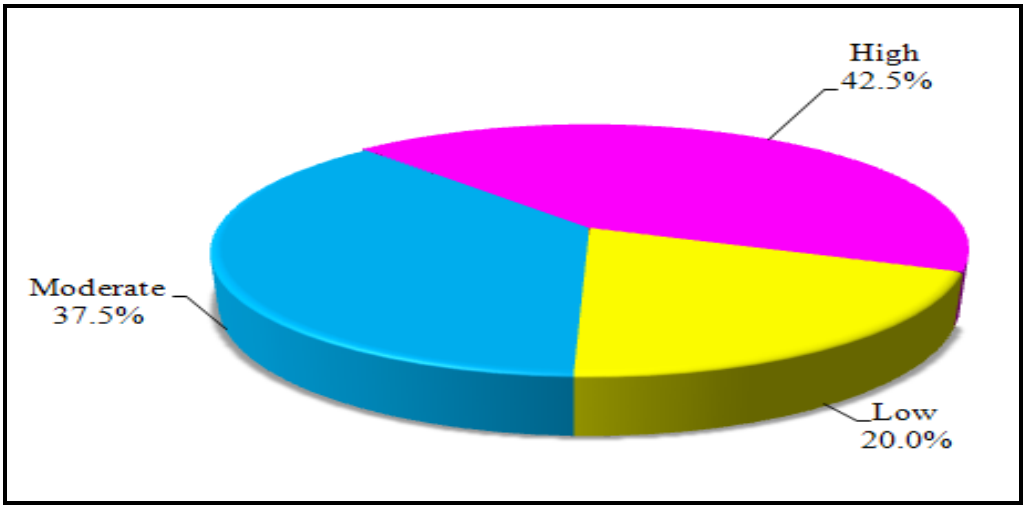


**Figure (2): Levels of psychological resilience measured by CD-RISC-25 among the studied older adults.**

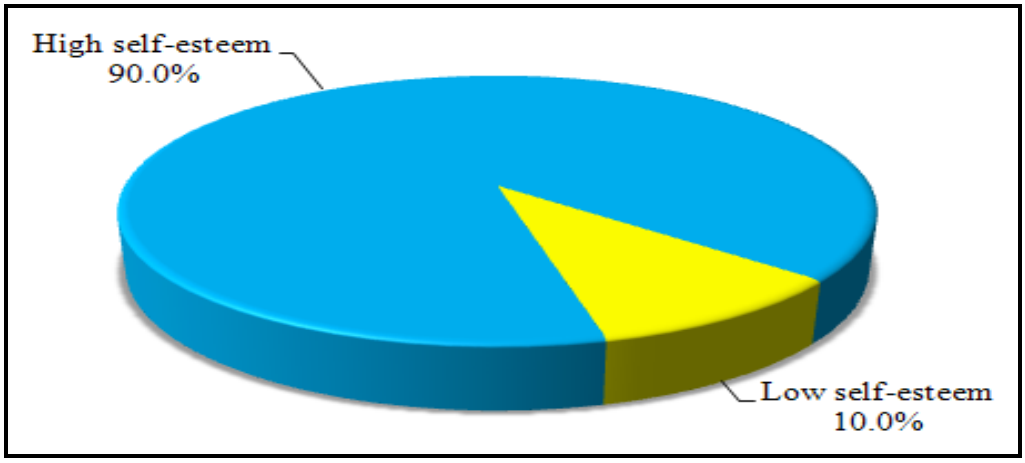


**Figure (3): Levels of self-esteem measured by Rosenberg self–esteem scal) among the studied older adults.**

**Table (3): Relation between levels of death anxiety and personal characteristics among the studied older adults (n=120)**

| Personal Characteristics | Death anxiety levels | | | | | | $\chi^2$ | P |
|---|---|---|---|---|---|---|---|---|
| | No death anxiety (n = 19) | | Moderate death anxiety (n = 37) | | High death anxiety (n = 64) | | | |
| | No. | % | No. | % | No. | % | | |
| **Sex** | | | | | | | | |
| Male | 10 | 52.6 | 18 | 48.6 | 27 | 42.2 | 0.814 | 0.665 |
| Female | 9 | 47.4 | 19 | 51.4 | 37 | 57.8 | | |
| **Age (years)** | | | | | | | | |
| 60 – <65 years | 11 | 57.9 | 20 | 54.1 | 33 | 51.6 | 1.502 | 0.826 |
| 65 – <70 years | 4 | 21.1 | 12 | 32.4 | 22 | 34.4 | | |
| 70 years and more | 4 | 21.1 | 5 | 13.5 | 9 | 14.1 | | |
| **Level of education** | | | | | | | | |
| Illiterate | 6 | 31.6 | 15 | 40.5 | 27 | 42.2 | 5.920 | $^{MC}p=$ 0.401 |
| Basic education | 5 | 26.3 | 11 | 29.7 | 25 | 39.1 | | |
| Secondary | 4 | 21.1 | 7 | 18.9 | 5 | 7.8 | | |
| University | 4 | 21.1 | 4 | 10.8 | 7 | 10.9 | | |

| Personal Characteristics | Death anxiety levels | | | | | | $\chi^2$ | P |
|---|---|---|---|---|---|---|---|---|
| | No death anxiety (n = 19) | | Moderate death anxiety (n = 37) | | High death anxiety (n = 64) | | | |
| | No. | % | No. | % | No. | % | | |
| **Marital status** | | | | | | | | |
| Single | 1 | 5.3 | 0 | 0.0 | 1 | 1.6 | 15.302* | MCp= 0.006* |
| Married | 17 | 89.5 | 23 | 62.2 | 30 | 46.9 | | |
| Divorced | 0 | 0.0 | 2 | 5.4 | 4 | 6.3 | | |
| Widow | 1 | 5.3 | 12 | 32.4 | 29 | 45.3 | | |
| **children** | | | | | | | | |
| Exist | 18 | 94.7 | 36 | 97.3 | 60 | 93.8 | 0.694 | MCp= 0.863 |
| Not Exist | 1 | 5.3 | 1 | 2.7 | 4 | 6.3 | | |
| **Number of children** | | | | | | | | |
| 1 – 2 | 6 | 33.3 | 8 | 22.2 | 20 | 33.3 | 3.706 | 0.447 |
| 3 – 4 | 10 | 55.6 | 18 | 50.0 | 31 | 51.7 | | |
| More than 4 | 2 | 11.1 | 10 | 27.8 | 9 | 15.0 | | |
| **Fixed income** | | | | | | | | |
| Yes | 9 | 47.4 | 31 | 83.8 | 51 | 79.7 | 10.195* | 0.006* |
| No | 10 | 52.6 | 6 | 16.2 | 13 | 20.3 | | |
| **If there is a fixed income** | | | | | | | | |
| Enough | 4 | 44.4 | 19 | 61.3 | 27 | 52.9 | 1.030 | MCp= 0.576 |
| Not enough | 5 | 55.6 | 12 | 38.7 | 24 | 47.1 | | |

$\chi^2$: ***Chi square test*** *MC:* ***Monte Carlo***
**: Statistically significant at p ≤ 0.05*

**Table (4): Relation between levels of death anxiety and medical history among the studied older adults (n=120)**

| Medical history | Death anxiety levels | | | | | | $\chi^2$ | P |
|---|---|---|---|---|---|---|---|---|
| | No death anxiety (n = 19) | | Moderate death anxiety (n = 37) | | High death anxiety (n = 64) | | | |
| | No. | % | No. | % | No. | % | | |
| **Chronic diseases** | | | | | | | | |
| Yes | 11 | 57.9 | 30 | 81.1 | 57 | 89.1 | 9.518* | 0.009* |
| No | 8 | 42.1 | 7 | 18.9 | 7 | 10.9 | | |
| **Effect of chronic diseases on activities of daily living** | | | | | | | | |
| Yes | 10 | 90.9 | 28 | 93.3 | 48 | 84.2 | 1.637 | MCp= 0.547 |
| No | 1 | 9.1 | 2 | 6.7 | 9 | 15.8 | | |
| **If yes** | | | | | | | | |
| It made me partially dependent on others | 9 | 90.0 | 26 | 92.9 | 39 | 81.3 | 1.878 | MCp= 0.365 |
| It made me completely dependent on others | 1 | 10.0 | 2 | 7.1 | 9 | 18.8 | | |
| **Major surgical operations** | | | | | | | | |
| Yes | 6 | 31.6 | 15 | 40.5 | 25 | 39.1 | 0.457 | 0.796 |
| No | 13 | 68.4 | 22 | 59.5 | 39 | 60.9 | | |
| **Psychiatric disorders** | | | | | | | | |
| Yes | 0 | 0.0 | 2 | 5.4 | 16 | 25.0 | 11.044* | 0.004* |
| No | 19 | 100.0 | 35 | 94.6 | 48 | 75.0 | | |

$\chi^2$: ***Chi square test*** *MC:* ***Monte Carlo***
**: Statistically significant at p ≤ 0.05*

**Table (5): Correlation between total scores of death anxiety, Self-esteem and Psychological resilience among the studied older adults.**

| Items | Death anxiety | |
|---|---|---|
| | r | P |
| **Self-esteem** | -0.266* | 0.003* |
| **Psychological resilience** | -0.320* | <0.001* |

***r: Pearson coefficient***

**: Statistically significant at p ≤ 0.05*

**Table (6): Univariate and multivariate linear regression analysis of factors affecting death anxiety**

| | Univariate | | #Multivariate | |
|---|---|---|---|---|
| | p | B (95%C.I) | p | B (95%C.I) |
| **Self-esteem** | **0.003*** | -1.305(-2.168– -0.442) | 0.029* | -0.262(-0.496– -0.028) |
| **Psychological resilience** | **<0.001*** | -0.247(-0.380–-0.113) | 0.003* | -0.195(-0.322– -0.068) |
| **Age** | **0.517** | 1.214(-2.481– 4.908) | | |
| **Gender** | **0.697** | 1.072 (-4.365– 6.509) | | |
| **Chronic physical diseases** | **<0.001*** | -12.066(-18.717– -5.414) | 0.002* | -9.701(-15.748– -3.655) |
| **Psychiatric disorders** | **<0.001*** | -14.749**(-21.849–-7.650)** | 0.003* | -10.140(-16.871– -3.409) |

***$R^2$=0.291, F=11.779*,p<0.001***

*** Statistically significant at p ≤ 0.05*

**Table (1):** Discloses the personal characteristics of the older adults investigated; the study group consisted of 120 older adults, 54.2 % of whom were females and 53.3 % were aged 60 to less than 65 years. In terms of marital status, 58.3% of respondents were married. When it came to the presence of children, 95.0 percent of the older adults said they had children. Fixed-income households accounted for 75.8% of the total.

**Table (2):** Shows the medical history of the older persons who were studied; the results show that 81.7 % of the studied older adults had chronic diseases, with 87.8% reporting that chronic diseases had an impact on their daily activities, and 85.0 % reporting no psychiatric disorders.

**Figure (1):** Indicates that more than half (53.3%) of the studied older adults displayed a high death anxiety level, 30.8% had a moderate level of death anxiety, whereas only 15.8% hadn't death anxiety.

**Figure (2):** Represents that 42.5 % of the studied older adults had a high psychological resilience level, 37.5% had a moderate level of psychological resilience, whereas only 20% had a low psychological resilience level.

**Figure (3):** Represents that 90 % of the studied older adults had a high self-esteem level whereas only 10 % had a low level of self-esteem.

**Table (3):** Puzzles out the relationship between levels of death anxiety and personal characteristics among the studied older adults. The study results revealed that there was a statistically significant relation between death anxiety levels and personal characteristics of the studied older adults concerning marital status and fixed income wherever $p \leq 0.05$.

**Table (4):** represents that there was a statically significant relation between having chronic diseases and high death anxiety levels among studied older adults. In addition, there was a statistically significant relation between older adults who didn't complain of psychiatric disorders and no death anxiety levels wherever $p \leq 0.05$.

**Table (5):** Verifies that a negative statistically significant correlation originated between total scores of death anxiety, self-esteem, and psychological resilience among the studied older adults as (r= -0.266, -0.320) at $p \leq 0.05$.

**Table (6):** Reveals univariate and multivariate linear regression models for factors affecting death anxiety among the studied older adults; as remarked, the most factor affecting death anxiety among older adults was the presence of chronic physical diseases followed by psychological resilience, psychiatric disorder, and self-esteem whereby (p= 0.002 , 0.003, 0.003, and 0.029) respectively.

## Discussion

The specter of death begins to hover as people grow older, preventing them from being fully free of death anxiety **(Wong, 2013)**. Naturally, Individuals with an optimistic attitude toward life are more likely to view life positively, which leads to a higher level of death acceptance and less death anxiety **(Paul et al., 2021).** Low levels of resilience can contribute to poor mental health, leading to death anxiety in the elderly **(Azeem & Naz, 2015).** Self-esteem and resilience reinforced

each other **(Liu et al., 2021).** Self-esteem serves as a buffer against death anxiety. Self-esteem protects individuals from death anxiety **(Hiyoshi et al., 2017)**. Self-esteem is important for humans because the self-regulatory process connected with it creates a flexible space that helps people cope with anxiety **(Wisman, et al., 2015).** Thereupon, the present study was implemented to explore the relation between psychological resilience, self-esteem, and death anxiety among older adults.

Death anxiety is common among elderly people who realize their mortality **(Zhang et al., 2019)**. The majority of older adults in this study showed a high level of death anxiety. This may be related to the fact that more than half of the studied older adults were young. **Ali et al, 2021** who illustrated that loss of work, loss of income, loss of social network, loss of prestige, deterioration in health, and power are all prominent stressors for young older adults at this period in life. All these losses exacerbate thinking of death. Another reason for a high level of death anxiety among studied older adults may be that death anxiety is growing prevalent among older adults is due to a variety of health issues, chronic diseases, limited mobility, physical limitations, more reliance on others, and significant losses (e.g., spouse, friends, & peers) **(Nayak et al., 2019).** This point outs an urgent necessity to decrease death anxiety in older adults, it is vital to address the contributing factors.

Similar to the preceding current study results, a study in Turkey revealed that the majority of older people have a significant level of death anxiety **(Bakan et al., 2019**). Along the same line, **Bidgoli et al, 2020** investigated death anxiety and its predictors among older adults in Iran and found that older adults suffer from moderate death anxiety. Similarly, several studies revealed that most of the elderly had a moderate level of death anxiety (**Saini et al., 2016**). Similar results were reported by a study in India that showed that nearly half of older adults had a high level of death anxiety (**Pinar & Demirel, 2020).** However, other studies reflect that older adult had a low death anxiety level **(Ali et al., 2021; Almostadi, 2018)**. In addition to **(John et al., 2016)** study in India reported that two-thirds of older adults had a moderate level of death anxiety**.**

Resilience is crucial in coping with aging-related changes and losses and promoting health and well-being among the elderly **(Hayman et al., 2017)**. For psychological resilience, most studied older adults had a high level of psychological resilience in the current study. The reason for being resilient might be the presence family support system for the older adults. Research shows that social support is the key to resilience when considered an outcome **(Gaffey et al., 2016)**. The non-institutionalized people's family support structure could explain their resilience. Non-institutionalized elderly people's families meet their financial, social, and emotional needs, allowing them to recover from adversity more quickly. So, this feeling of belonging with family and contentment may make non-institutionalized elderly people more resilient in dealing with current stressful events. (**Azeem & Naz., 2015)**.

**Weitzel et al. (2021)** found that the prevalence of strong resilience was higher in those aged 65–74 years, which is consistent with previous findings. The elderly has a higher level of resilience, according to **Bitarafan et al. (2018).** Furthermore, **MacLeod et al. (2016**) found that higher levels of resilience are associated with aging in their study "The influence of resilience among older persons." According to another study, older people who are not in institutions are more resilient than those who are **(Azeem & Naz, 2015).** To support optimal adaptability in the elderly, **Akatsuka & Tadaka (2021)** advocated focusing on resilience, particularly numerous individual resources such as psychological resources, valued activities, life experience, and spirituality.

The most important aspect in the psychological growth of elderly people is their self-esteem. The findings of this study revealed that the majority of the older persons investigated had a high level of self-esteem. This could be because the majority of the older persons who were evaluated were free of psychiatric illnesses. Self-esteem is related to people's social integration and adaptive capacities to cope with life events, such as physical and cognitive decline, rather than their chronological age. As a result, despite the deterioration in many areas of mental activity, the aging process does not always result in a decrease in self-esteem **(Rasquinha, 2014).** Given the importance of self-esteem in reducing physical, psychological, and social problems in older individuals, health-care providers must provide financial social, and psychological support to these individuals.

On the same track, **Oliveiraa et al. (2019),** carried out a study comprising 654 older people and concluded that more than half of older people had good self-esteem. Also, **Reyes et al. (2017)** emphasized that older adults had a high level of self-esteem. Additionally, **Franak et al. (2015)** clarified that there was a generally high level of self-esteem in the elderly**.** On the other hand, a study in Pakistan by **Ali et al. (2016)** verified a lower self-esteem level among the Geriatric population. This discrepancy could be attributed to cultural differences across countries. It should be emphasized that the elderly is highly regarded in the Egyptian community due to the prevailing traditional culture, which has a favorable impact on their self-esteem.

The finding of the contemporary study denoted that, there was a statistically significant relation between death anxiety levels and personal characteristics of the studied older adults concerning marital status. It was found that widowed older adults had higher death anxiety. The cause for this may be that in the short term, marital disruption at an older age can be harmful to one's health, particularly psychological health. **(Ding et al, 2021).** The result of the present study is consistent with the study conducted in Egypt 2021 by **Ali et al. (2021)** investigated factors associated with death anxiety among community-dwelling older adults and noted a significant relation between marital status, income, and death anxiety. Besides, **MacLeod et al. (2016)** emphasized that marital status strongly predicts higher levels of death anxiety among New Zealanders.

The contemporary work found that there was a statistically significant relation between death anxiety levels and the medical history of the studied older adults concerning the presence of psychiatric disorders. It was found that older adults who reported the absence of psychiatric disorders had lower death anxiety. Mental health has also been identified as a significant predictor of death anxiety in older persons. The cause for this may be due to people who do not perceive themselves to be healthy more inclined to experience anxiety about death and dying issues **(Geurtsen, 2010).** Furthermore, older adults' death anxiety decreases as their cognitive and mental health improves. This is because they have more control over their lives and are less vulnerable to mental diseases and death anxiety **(Sharma et al., 2019).**

Equivalent to the existing findings **Musaiger & D'Souza (2009)** emphasized that the elderly's death and dying anxiety decreases as their cognitive and mental health improves. It means that a higher level of mental health is linked to a lower level of death anxiety **(Geurtsen, 2010).** This point outs an urgent necessity to detect approaches that would help to enhance mental health among older adults.

Death is a natural process of life for everyone; hence, those with a higher and more powerful attitude toward life consider death as a natural part of life, and death provides a sense of life for these people **(Azarian et al., 2016).** Interestingly, the current study's findings revealed a statistically significant negative association between resilience and death anxiety among the older persons tested. This conclusion could be explained by the fact that resilience has the potential to avert psychological issues. This finding is in line with the findings of **(Bitarafan et al., 2018),** who found a substantial negative relationship between death anxiety and psychological resilience. This finding is proved by **Paul et al. (2021)** who clarified resilience and death anxiety have a statistically significant association. Correspondingly, a study on death anxiety in Pakistan elucidated that; low levels of resilience can contribute to poor mental health, leading to death anxiety in the elderly **(Azeem & Naz, 2015)**. The study's findings highlighted the necessity to provide older adults with a variety of skills so that they may easily cope with life's challenges and stressors.

The self-regulatory mechanism associated with self-esteem creates a flexible space that helps people manage anxiety **(Wisman et al., 2015).** There was a negative link between death anxiety and self-esteem among the older adults tested in this study. It is probably owing that; self-esteem helps people in overcoming their fears regarding death by providing them with a sense of literal or symbolic immortality. According to Terror Management Theory, self-esteem can serve as a buffer against death anxiety and its impacts on an individual **(Reyes et al., 2017)**. Also, people with low self-esteem are more likely to be anxious about death, whereas self-esteem challenges generate death anxiety, and self-esteem protection minimizes death anxiety **(Hiyoshi et al., 2017)**. Furthermore, a study directed by **Zhang et al. (2019)** reported that death anxiety was found to be significantly linked to low self-esteem in older persons. Therefore the researchers recommended education sessions for older persons to help them consolidate and improve meaning in their lives, allowing them to boost their self-esteem and serve as a buffer against death anxiety.

As people grow older, their health begins to deteriorate. Study findings indicated that the significant negative predictor of death anxiety is the presence of chronic physical diseases among the older adults, followed by psychological resilience, psychiatric disorder, and self-esteem. The cause for this may be that the fear of aging and death anxiety is commonly related to deteriorating physical condition and the need for long-term care. It highlights the importance of perceiving health as a multidimensional construct in which the mind influences the body and the body influences the mind, rather than as a single concept composed entirely of physical health. **(Haroon et al., 2018)**.

In a discrepancy with the above-mentioned findings, Issues of death and dying are especially sensitive in persons with physical disorders **(Sharma et al., 2019)**. Similarly, **(Haroon et al., 2018)** studied ego integrity, physical health status, and death anxiety in older adults and noticed that physical health is a significant negative predictor of death anxiety in older persons. As well, **Saini et al. (2016)** conveyed that death anxiety is higher among the elderly with a chronic medical condition. Also, **Missler et al. (2012)**

revealed that death anxiety is aggravated by poor physical health.

## Conclusion

In deduction, grounded on the present study results, negative statistically significant correlations were established between psychological resilience, self-esteem, and death anxiety among the studied older adults. The current study elucidated the most affecting predictors relating to death anxiety among considered older adults are the presence of chronic diseases was the dominating one, followed by psychological resilience, psychiatric disorder, and self-esteem.

## Recommendations

**Built on the findings of the contemporary study, the subsequent recommendations are proposed:**

1. Teaching older adults about the importance of maintaining good health, avoiding risk behaviors, preparing for retirement, and coping with stressors. It can be achieved through educational classes for elders during routine medical checkups in different healthcare settings and clubs.
2. Older individuals should be encouraged and instructed to engage in resilience-building activities such as joining a social group, starting a stress management program, exercising, or learning a new hobby so that they have something to look forward to and have less time to reflect on life's challenges.
3. Creating and implementing educational sessions for older adults to help them consolidate and enhance meaning in their lives by highlighting important life purposes and values, allowing them to strengthen their self-esteem, which can help them cope with death anxiety.
4. More research on the determinants of death fear in older adults is needed, as well as the creation of a comprehensive program to reduce death anxiety among Egyptian seniors.

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