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Depression, Stress and Anxiety among Elderly People

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Abstract
Aging is normally associated with a decrease in physical and mental abilities and mental health disorders such as depression, anxiety, and stress are among the most common health problems in elders that affect the quality of life. The objective of this study was to determine the level of stress, anxiety and depression among elderly people. This was a cross-sectional study conducted on older adults who attended in the elderly day care center in Tehran (Iran) from September 2015 to June 2016 and interviewed 100 elderly persons. We used simple random sampling technique from a list of registered elderly individuals and conducted face-to-face interviews using a questionnaire. The Depression, Anxiety, and Stress Scale 21 (DASS-21) standard questionnaires was used for data collection. The SPSS software was used for all computations. Data were analyzed using descriptive statistic, t-test, and one-way ANOVA. P < 0.05 was determined to be significant. The majority of the participants were women 76% with the mean age of 63.37±4.32 years and stress was higher in women in compare to men. The results of this study indicated stress prevail among the elderly. Therefore, more attention is deserved in these aspects. Moreover, appropriate measures need to be taken to improve the mental health of elderly people.

Keyword: Stress, anxiety, depression and aging

1. Introduction

The world's population is aging rapidly. According to a research conducted in 2006, suggested that people 60 years old and above, will be around 650 million in 2025. More than two billion people worldwide will be 60 years of age or beyond in 2050. This increase in the elderly people's population will bring about serious problems for communities and special attention should be paid to their mental and physical needs.[2] Other issues such as limited financial resources along with health problems will make them feel they have no control over their lives. These problems will lead to negative emotions such as sadness, anxiety, low self-esteem, social isolation, despair and dejection in the elderly people. The biggest mental problem, depression is the most serious consequence of such emotions in the world.[3] Generally, 15% of the elderly population is suffering from mental complaints, and stress is one major mental health problem affecting a sizeable percentage (10–55%) of the elderly people.[4] The prevalence of anxiety and stress among the elderly population is gradually increasing and estimated to reach double in the next one decade.[5]one of The most common psychiatric disorders is depression and suicide risk factor in the elderly that cause 24% of completed suicides, increase in drug consumption, reduction of quality of life, , care costs and many other economic and social problems in the elderly population.[6] Geriatric depression If untreated, can significantly reduce the quality of life (QoL) as well as that of their relatives.[7]The population aged ≥60 years accounted for 5.2% of the total population in 1986, 7.3% in 2006, and is estimated to increase to 14.5% by 2036 according to the national census data in Iran.[8-9] In Iran a study is reported that 1.3% of the elderly people suffer from severe depression , 1.3% from severe stress, and 3.1% from severe anxiety.[10] Additional study reported that 10% of the Iranian elderly suffer from severe anxiety and depression.[11] The importance of aging and the problems related with them, appropriate planning should be carried out to decrease the effects of aging and this needs an awareness of the health status of the elderly people in the world.

2. Methods

This cross-sectional study was that between September 2015 to June 2016 in elderly day care center in Tehran (Iran). A total of 100 subjects participate in this study that their ability to read and write, to be of age 60 or above and the consent of the participants were the inclusion criteria in this study. A psychiatric history, a history of confusion and amnesia, consumption of drugs used in psychiatric disorders, loss of a close relative in 1 month and not to be willing to participate were the exclusion criteria.In this study two instruments were used that the demographic information such as age, sex, marital status, health and educational level was the first instruments. Another instruments were depression, anxiety, stress scale 21 (DASS-21) was used to gain an understanding about the level of stress, anxiety, and depression in the participants undergo in this study. The questionnaire has been used in different countries including England and its reliability and validity have been confirmed.[12] DASS-21 is a standardized questionnaire which includes 21 questions which use 7 questions to measure any of the symptoms of depression, stress, and anxiety.

The validity of this questionnaire was checked through factor analysis and its internal consistency reliability was investigated by Sahebi et al.[13] on 1070 samples in Iran by simultaneous implementation of Beck depression Inventory (BDI), Zhang anxiety, and perceived stress tests. In general, the obtained reliability and validity coefficient of this instrument with Iranian context were found to be reasonable and a study entitled "the study of reliability and validity of the short form of DASS" on 638 persons helped establish the reliability and validity of the scale.[14] This was a Liker type questionnaire with 4 options on a continuum ranging from no, low, high, and very high levels, indicating levels of stress which were completed through self-report. A score of 0, 1, 2 and 3 was assigned to no, low, high and very high, respectively.

3. Results

In this study, a total of 100 subjects participated in this study. Of them 75 (76%) were female and 25 (24%) were male. The mean age of the participants was 63.37±4.32 (female) and65/08±4/82 (male) respectively and 76% were married and 25 of the total participants (24%) were single. Regarding their educational status, 91 (89.4%) of the participants were under high school, and 9 (10.6%) had a high school diploma or higher and 48.1% of the elderly also had at least one form of physical illness. (Table 1).

Variables	Sub Group's	n%
Sex	Male	25(24%)
	Female	75(76%)
Age	60-74	95(95.2%)
	≤ 75	5 (4.8%)
Education	Below diploma	91(89.4%)
	Diploma and higher	9(10.6%)
Martial statues	Married	75(76%)
	Single	25(24%)
	Yes	49(48.1%)
Disease	No	51(51.9%)

Table 1: Demographic Characteristics of the Participants

Based on the findings of the study, 5.8% of the elderly people suffered from very severe stress, 4.8% severe depression, and 13.5%severe anxiety (Table 2).

Variables	mild (n %)	moderate (n %)	sever (n %)	very sever (n %)
Depression	17(15.4%)	31(28.9%)	9(7.7%)	6(4.8%)
Anxiety	14(11.5%)	23(21.1%)	14(11.5%)	14(13.5%)
Stress	31(28.8)	42(39.4)	14(11.5%)	7(5.8%)

Table 2: Frequency of Stress, Depression and Anxiety in the
Elderly Based on the Levels of Variables

A comparison of anxiety, stress, and depression disorders with context variable showed that the disorders significantly associated with gender (Table 3).

Variable	Subgroups	Stress (Mean ± SD)	Depression (Mean ± SD)	Anxiety (Mean ± SD)
Gender	Male	18,12±5,56	9,27± 8,8	6,51±4,46
	Female	19,47±6,78	11,83± 9,98	11,90±8,4
	P	0,401	0,028	<0,001

Table 3: Comparison of Mean Scores of Depression in the Elderly

4. Discussion

This study aimed at evaluating the level of depression, anxiety, and stress among elderly residents and the relationships between depression, anxiety, and stress, with variable of gender were also assessed.
In this study, a total of 100 subjects participated and 75 (76%) were female and 25 (24%) were male. The mean age of the participants was 63.37±4.32 (female) and65/08±4/82 (male) respectively and 76% were married and 25 of the total participants (24%) were single. Regarding their educational status, 91 (89.4%) of the participants were under high school, and 9 (10.6%) had a high school diploma or higher and 48.1% of the elderly also had at least one form of physical illness. The findings of this study showed that 5.8% of elderly persons had severe stress, 4.8% severe depression, and 13.5% had severe anxiety. A study conducted by Ghafari et al. (1) on the elderly in Tehran also have shown that 4.8% of elderly patients have severe stress, 4.8% severe depression, and have 11.5% severe anxiety. Another study by Babazadeh et al.[10] in Khoy also shown that 1.3% of elderly people have severe stress, 1.3% severe depression and 3.1 % sever anxiety. However, the findings of this study by Babazadeh et al.[10] in Khoy are inconsistent with the study conducted by Ghafari et al.[1]. One explanation is that the present inconsistencies between the results of different studies may be the function of different environmental conditions in which the elderly persons live. For example, Tehran's environment is more stressful and more anxious than the environments of Khoy.

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In addition, the findings of this study showed that stress and depression rate in elderly men and women have statistically significant difference. To be more exact, the older women had higher levels of stress and depression than older men. One of the reasons for the lesser stress disorders, depression, and anxiety experienced by men may be that this gender group has more social support compared with females. For example, a study done by Fuhrer et al.[15] in England showed that men have relatively more intimate relationships and larger social networks than women. However, the results of the study conducted by Alizadeh et al.[16] are inconsistent with the results of our study.

In other word, the study conducted by Alizadeh et al.[16] showed that the risk of depression, in women is 1.7 times more than men. Different results may be the result of the mood of the participants in completing questionnaires, gathering information, and so on. The present study had some limitations which should be noted. Using a self-reporting questionnaire to assess DAS may not be as accurate as other types of tests for psychological parameters (e.g. clinical examination, interview, and blood parameters). In addition, the study was carried out at one elderly day care center and cannot be generalized to other populations. The use of the convenience sampling method also reduced the generalization potential of the study results.

5. Conclusions

As the aging population increases, there is a need for more attention to the mental health of the elderly. Based on the findings discussed above, it is necessary to be aware of the psychological states of the elderly people and take measured steps to help find solutions and effective strategies through intervention programs to reduce stress disorder, anxiety, and depression in society, especially, in the elderly population. Further studies are required to evaluate the impact of this model on other aspects of mental health in older adults.

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