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Original Article

The Frequency of Psychological Symptoms in the Elderly: A Cross-Sectional Field Study in Istanbul, Turkey

Ahmet Ozluk [1], Can Oner [*2], Hüseyin Cetin [3], Engin Ersin Simsek [4]

[1.] Department of Family Medicine, Health Sciences University Kartal Dr Lutfi Kırdar City Hospital, Istanbul, Turkiye

[*] **Corresponding Author:** Department of Family Medicine, Health Sciences University Kartal Dr Lutfi Kırdar City Hospital, Istanbul, Turkiye. **Tel:** +905064174573**, Email address**:drcanoner@gmail.com

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Introduction: Various reports have documented the psychological issues that affect the elderly. According to estimates, approximately 20% of the geriatric population experiences at least one psychological symptom or disorder. The aim of this study is to establish the frequency of psychological symptoms in the elderly population in İstanbul, Turkey.

Methods: This cross-sectional study was conducted with 350 participants aged 65 and over, between 01.02.2019 and 19.07.2019. The psychiatric symptoms of the participants were evaluated with the Symptom Check List-90 Revised (SCL-90-R) test.

Results: Psychological symptoms are present in 32.9% of the elderly population. The prevalence of depressive symptoms is 32.9% and the rate of obsessions is 26.6%. Somatization is present in 13.4% of cases, while interpersonal sensitivity is observed in 8.9% of cases. The paranoid symptom rate is 10.6%. While 6.9% of the participants have possible anger disorder symptoms, the rate of participants with anxiety symptoms is 6.6%. The rate of participants with probable phobic symptoms is 5.4%, and the rate of those with psychotic symptoms is 4.0%.

Conclusion: Psychiatric problems encountered in old age negatively affect the quality of life. Because the most common psychological symptoms were depression, obsession, and somatization, family physicians should conduct screenings for possible mental problems in elderly individuals registered with them, regardless of the reason.

Keywords: Aged, Psychological Symptoms, Depression, Obsession, Somatization

Introduction

With the increase in life expectancy, elderly health has gained more importance. Many studies have revealed that in addition to chronic diseases in the elderly, psychiatric disorders are also very common. Studies have reported that one quarter to one third of elderly people have a mental disorder (1).

According to various studies, the prevalence of major depression in the elderly population is estimated to be between 1-4%, while the rate of those affected by anxiety disorders is approximately 17% (2, 3). Psychotic disorders commonly seen in adults are also common in the elderly population. In community-based studies, the prevalence of schizophrenia in the elderly varies between 0.1% and 0.5%, while this rate increases up to 10% in nursing homes. According to recent studies, it has been found that anxiety, depression and emotional disorders are more common and severe in the elderly population (4).

The number of epidemiological studies investigating the frequency of psychological symptoms in the elderly is limited. Studies have mainly focused on the frequency of some specific symptoms and illnesses. The Symptom

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Checklist-90 (SCL-90) is a good tool to assess the presence of 9 different psychological symptoms. This study aims to determine the frequency of psychiatric symptoms in the elderly in İstanbul Turkey.

Methods

Study design and participants

This cross-sectional study was conducted in Istanbul between March and December 2019. The sample size was calculated with a 95% confidence interval and a 5% margin of error. Three hundred fifty people were included in the study. Participants were randomly entered into the study. Patients were identified using a random number table from the list of patients over 65 years of age registered on the family medicine information system. Home visits were made by going to the residence addresses of the patients on the system. The data were collected through the home visit and face-to-face interview. Health records of the patients were analysed. Patients with dementia, delirium, or a disease that causes limitation of mental abilities, those diagnosed with any psychiatric disease, patients currently using any psychiatric medication, and bedridden patients were excluded from the study.

*Instrument*s

A two-part data collection form was arranged by the researchers applied to the elderly. In the first part of this form, questions about the participant's sociodemographic, economic, and health status were asked. The second part of the form, "Symptom Check List-90 Revised" (SCL 90 R), developed by Leonard Derogatis in 1970 and whose Turkish reliability and validity studies were conducted in 1991, was applied (5, 6). The SCL-90 R test is a non-invasive tool that contains 90 questions and is used to identify psychiatric symptoms and distress in the individual. It is suitable for application in patients and society. The SCL-90 R test determines the frequency of psychological symptoms of individuals over nine dimensions and three total scores. These nine dimensions are somatization, obsession and compulsion, interpersonal sensitivity, depression, anxiety, anger, phobic anxiety, paranoid thought, and psychosis, respectively. The three global scores obtained are the global severity index, the positive symptom distress index, and the positive symptom total score. The participant is expected to score between 0-4 for each item on the 5-point Likert-style scale. Then, ten subscales, each of which includes 6-13 items, are calculated, and all three index scores are calculated by proportioning the subscale scores to the cumulative total obtained from each items. The mean value of the subscales obtained gives the global symptom index. A score above one is pathological.

Statistical analysis

The obtained data was analyzed with the SPSS 21 program. The categorical data were compared with the chi-square test. Descriptive values are expressed using numbers, percentages, mean ± standard deviations, and median (maximum-minimum). The significance level was accepted as $p < 0.05$.

Ethical considerations

Permission was obtained from the Ethics Committee of Lütfi Kırdar Training and Research Hospital (Ethics Committee Date/No 31.10.2018-2018/514/140/14). Written informed consent was obtained from those who agreed to participate in the study. Patients with psychiatric symptoms were referred to their family physicians.

Results

A total of 350 elderly participants were included in the study. Overall, 53.4% (n = 187) of the participants were female, and 46.6% (n = 163) were male. The mean age of the participants was 72.4 ± 6.6 years. Most of the participants were married (57.4%; n = 201); primary school graduates (38.3%; n = 134), and lived in an apartment (55.4%; n = 194) with a spouse or children (65.1%; n = 228). The general characteristics of the participants are compiled in Table 1. There was a significant difference in terms of marital status of female and male participants. There were more women among the widowed participants and more men among the divorced participants. In terms of educational status, it was observed that the educational level of women was significantly lower than that of men. Living alone and with a carer is significantly higher in female participants than in male participants. There is a significant difference in terms of income.

Considering all the participants, the rate of the elderly with at least one psychological symptom was 32.9% (n = 115). Considering all participants, the rate of elderly with probable somatization symptom was 13.4% (n = 47); the proportion of the elderly with a probable anxiety symptoms was 6.6% (n = 23); The rate of elderly with obsession symptom was 26.6% (n = 93). Considering all participants, the rate of elderly with depressive symptoms was 32.9% (n = 115); the proportion of the elderly with interpersonal sensitivity symptoms was 8.9% (n = 31). The rate of elderly with psychosis symptom was 4.0% (n = 14) and the rate of elderly with the paranoid symptoms was 10.9% (n = 38). Considering all the participants, the rate of the elderly with hostility symptoms is 6.9% (n = 24). Considering all the participants, the rate of the elderly with the phobic symptom was found to be 5.4% (n = 19), and the rate of the elderly with the additional psychological symptoms was found to be 24.0% (n = 84). (Table 2)

Discussion

The study revealed that 32.9% of the elderly population exhibited at least one psychological symptom. There was no significant difference in the prevalence of psychological symptoms between men and women. The most common psychological symptom was depression, while the least common symptom was psychotic disorders.

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Table 1. General characteristic of participants

		Male %. (n = 163)	Female %. (n = 187)	Total %. (n = 350)	p
Age (year)(Mean ± SD)		72.4 ± 5.0	72.4 ± 7.7	72.4 ± 6.6	0.959*
Marital status	Married	59.2 (119)	40.8 (82)	57.4 (201)	
	Widow	22.1 (25)	77.9 (88)	32.3 (113)	0.000**
	Divorced	63.2 (12)	36.8 (7)	5.4 (19)	
	Single	41.2 (7)	58.8 (10)	4.9 (17)	
Education	5 year and below	40.4 (76)	59.6 (112)	53.7 (188)	0.013**
	6 year and above	53.7 (87)	46.3 (75)	46.3 (162)	
Living placei[1]	Apartment	49.0 (95)	51.0 (99)	56.4(194)	
	Private home	45.3 (67)	54.7 (81)	43.0 (148)	0.792**
	Nursing home	50.0 (1)	50.0 (1)	0.6 (2)	
Private room[2]	Yes	47.6 (152)	52.4 (167)	91.7 (319)	0.174**
	No	65.5 (19)	34.5 (10)	8.3 (29)	
Staying with[3]	Wife/Husband/children	53.1 (121)	46.9 (107)	65.3 (228)	
	Single	35.1 (34)	64.9 (63)	27.8 (97)	0.010**
	Caregiver	25.0 (3)	75.0 (9)	3.4 (12)	
	Other	41.7 (5)	58.3 (7)	3.4 (12)	
Income [4]	< Minimum wage	28.6 (10)	71.4 (25)	10.2 (35)	
	Minimum wage	43.9 (111)	56.1 (142)	73.5 (253)	0.000**
	> Minimum wage	73.2 (41)	26.8 (15)	16.3 (56)	

[1] 6 data missing.[2] 2 data missing.[3] 1 data missing.[4] 6 data missing * Student t test. **Chi-square test

Table 2. Frequencies of symptoms

	Male %. (n = 163)	Female %. (n = 187)	Total %. (n = 350)	p*
General symptoms	4.2 (7)	5.8 (11)	5.1 (18)	0.082
Somatization symptoms	11.0 (18)	15.5 (29)	13.4 (47)	0.411
Anxiety	6.1 (10)	6.9 (13)	6.5 (23)	0.807
Obsessive symptoms	20.8 (34)	31.5 (59)	26.5 (93)	0.846
Depressive symptoms	31.9 (52)	33.6 (63)	32.8 (115)	0.846
Interpersonal sensitivity	5.5 (9)	11.7 (22)	8.8 (31)	0.097
Psycotic symptoms	3.7 (6)	4.3 (8)	4.0 (14)	0.960
Paranoid symptoms	9.2 (15)	12.3 (23)	10.8 (38)	0.469
Hostility	6.7 (11)	6.9 (13)	6.8 (24)	0.925
Fobic symptoms	4.2 (7)	6.4 (12)	5.4 (19)	0.469
Additional symptoms	23.3 (38)	24.5 (46)	24.0 (84)	0.700

* Chi-square test

Depression and anxiety are widespread disorders among older individuals. According to a meta-analysis study, the prevalence of major depression among elderly individuals is approximately 13.3% (7). The prevalence of depressive symptoms is higher among elderly individuals. In a recent study carried out in China, the reported prevalence of depressive symptoms among the elderly was 20.1% (8). Regarding anxiety, it is estimated to affect 8% of the elderly population (9). According to a national study, 18.9% of older adults were diagnosed with anxiety, while 17.9% were diagnosed with depression (9). Despite our study's higher rate of depression compared to the literature and lower rate of anxiety, failure to standardize environmental and social factors and screening methods may have influenced these findings. Although there is evidence suggesting a strong association between being female and experiencing depression/anxiety, there are also scholarly articles, including our own research, that present findings indicating no substantial correlation between these two factors (10-13).

Upon examining the literature, it becomes apparent that existing research shows a continual decrease in obsessions as individuals age (14, 15). A study conducted in 2017 revealed that the incidence stood at 5.7% among individuals aged 65 and above (16). In our study, the prevalence of obsessive symptoms among elderly individuals was found to be 26.6%. Because our study is focused solely on investigating the frequency of symptoms and is not intended as a diagnostic study, it is reasonable to expect a higher rate.

In the study, 8.9% of elderly individuals exhibited symptoms of interpersonal sensitivity, while 6.9% exhibited symptoms of hostility. There were no significant differences between men and women in terms of either symptom. Upon closer examination of the literature, it becomes apparent that there is a dearth of studies that delve into the frequency of interpersonal sensitivity. Studies on this subject primarily concentrate

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on the theoretical analysis of the correlation between personality traits, psychiatric complaints, past life events, and interpersonal sensitivity. The correlation between age and symptoms of hostility is clear in the literature. There are reports indicating a decline in incidence among older adults population and complete absence in individuals aged 80 and above. It has been reported in multiple publications that being male is correlated with a greater prevalence of hostility. Other studies show that there is no substantial correlation between gender and symptoms of hostility (10, 17).

The study revealed that the prevalence of phobic symptoms among the elderly was 5.4%. There is no significant difference between men and women in the presence of phobic symptoms. When reviewing the literature, it becomes apparent that a higher prevalence of phobic symptoms is observed among females (15, 18). Some publications have also showed no correlation between gender and phobic symptoms (10). The literature reveals a significant link between age and there are variations observed across different phobia types and assessment scales (15).

The study revealed that the prevalence of paranoid symptoms among the elderly was 10.9%. These rates, discovered in our study, diverge from the literature (19). Gender did not show a significant difference in the presence of paranoid symptoms. While the literature suggests that being female increases the risk of paranoid disorder, some publications indicate it may not make a significant difference (10, 19, 20).

As a result, the rate of elderly with somatization symptoms was 13.4%. No significant difference was found between men and women in terms of somatization symptom. Most studies have shown that somatization disorder is more prevalent among women (21). Our study aligns with other publications that have failed to detect a significant difference between the sexes, albeit to a lesser degree (10, 21, 22). One explanation for this variation could be attributed to the fact that the individuals in our sample had higher levels of education and socioeconomic status.

Conclusion

When considering all participants, it was observed that one in every three elderly individuals exhibited psychological symptoms. Among older adults, the most prevalent mental problems are depression, obsession, and somatization disorders. Given this context, it would prove beneficial if family physicians perform screenings for these issues.

Study limitations

There are some limitations to the study. The area where the study was conducted is a region where the elderly population is more dense than the normal population. Also, the parameters of the study group, such as education and income, differ from the general country data. In this respect, caution is recommended when generalizing the results. That the measurement tool does not make a diagnosis and the diagnoses are not confirmed.

Conflict of interest

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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Authors' contribution

Concept & design: AO,CO,EES
Methodology: CO,EES,HC
Investigation: AO,CO,HC,EES
Writing: AO,CO,HC,EES
Supervision:CO

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