The Effect of Sociodemographic Factors and Medical Status on Depressive Symptoms of the Inhabitants of Nursing Home and Community-Dwelling Elders in Trabzon-Turkey

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ABSTRACT:

The effect of sociodemographic factors and medical status on depressive symptoms of the inhabitants of nursing home and community-dwelling elders in Trabzon-Turkey

Aim: The rate of depression is increasing among the elderly population of Turkey. The aim of the study was to evaluate the effect of living in a nursing home on depressive symptoms.

Methods: The study was conducted in May 2001 among 97 elders, who live in a nursing home (NH), and 97 community-dwelling (CD) elders. The individuals who were enrolled in the study were matched according to age and sex and did not suffer from dementia. All of the elderly completed a questionnaire concerning their medical and social status and history. Each individual received a rating on the Geriatric Depression Screening Scale. Data were analysed using the chi-square test and enter-method logistic regression.

Results: Seventy-eight (80.4%) of the NH group and 46 (47.4%) of the CD elders had depressive symptoms and the difference between two groups was statistically significant (x^2=34.60, df=1, p<0.0005). The depressive symptoms were higher in elders living in NH (OR=2.93; 95% CI: 1.20-7.20), elders with no hobby (OR=2.70; 95% CI: 1.20- 6.10), uneducated elders (OR=2.64; 95% CI: 1.16-5.99), in the women (OR=2.45; 95% CI: 1.04-5.76), and elderly individuals who have more diseases (OR=1.64; 95% CI: 1.11-2.41).

Conclusion: Besides other risk factors, dwelling in a nursing home seems to be an important risk factor for depressive symptoms in the elderly.

Key words: elderly, depressive symptom, nursing home, community-dwelling.

INTRODUCTION

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Depression negatively influences the quality of life of the elderly (1,2). The frequency of major depression in the elderly has been reported to be between 1 to 3%, dysthymic disorder around 2%, and clinical depression between 8 to 15% (3). In Turkey, life expectancy at birth is getting longer, and, as a result, the elderly population is increasing like some other developing countries (4,5). The prevalence of physical and psychological problems in the elderly of Turkey has increased over the last decades (6).

Depression is a common disorder associated with suffering, morbidity, and mortality in the elderly inhabitants of nursing home (NH) (7). For example, fifteen (34.3%) of the community-dwelling (CD) elderly and 25 (48.1%) of the elderly living in a NH had been reported to have depressive symptoms in a study in Turkey (8). However, it was reported that despite the high rate of psychiatric disorders in NH, psychiatric consultation was requested infrequently (9).

The aim of this study is to investigate the possible impact of sociodemographic factors and medical status of NH residence and CD on depressive symptoms in the elderly in Trabzon, a city in the Northern East of Turkey.

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57

METHODS

This study was conducted in May 2001 among 97 elders who live in a NH, and 97 elders, who are CD. The elderly individuals enrolled in this study were matched according to age and sex and did not suffer from dementia as diagnosed by Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (10). The CD elders were randomly identified from the annual population records of Primary Care Centres of Trabzon, and were matched accordingly with the NH elders. The authors evaluated each elderly by face-to face interviews and rated according to the Geriatric Depression Screening Scale (GDSS) (11). Geriatric Depression Screening Scale is composed of 30 items investigating the symptoms of depressive disorder. In addition, the researchers established the current medical and social status and history of the elderly using a questionnaire, which contained the following information: age, sex, education level, marital status, health insurance, hobbies, psychological trauma history, chronic diseases, and the drugs used.

There were 117 elderly who has lived in NH and 20 (17.1%) of them were eliminated because of dementia. The CD elderly enrolled in this study were matched according to age and sex of the NH ones. Ninety-seven elders, who live in a NH, and 97 elders, who are CD (32 females and 65 males in each group), were enrolled in the study. The age ranges were as follows: 24 (24.7%) were 65-69 years old, 19 (19.6%) were 70-74 years old, 29 (29.9%) were 75-79 years old, and 25 (or 25.8%) were 80 or more years old and the age distribution was equal in the two groups.

Validity and reliability tests of the GDSS scoring in the Turkish population were made by Ertan et. al., and was found to be valid and reliable (12). A cut-off score of 11 was taken to indicate the depressive as is recommended (11).

The study was approved by the Ethical Committee of Karadeniz Technical University, Faculty of Medicine. Data were analyzed using the chi-square test and enter-method logistic regression. In logistic regression, dependent variable was a score of 0-10 points, which indicated non-depressive, and a score of 11-30 points, which indicated possibly depressive. To be educated, sex, to have a hobby (e.g., flowers, painting), number of chronic disease that the individual had, number of the drugs that are used for the therapy of the diseases, age, to live in NH or community and psychological trauma (e.g., loss of a spouse or child, economical hardship, earthquake etc.) were independent variables. Logistic regression model was statistically significant and overall predictive value of the model was 76.41% (x^2= 53.119, df= 8, p<0.001). Odds ratios (OR) were calculated with 95% confidence intervals (CI). Interval data were reported as mean values with a ± standard deviation (SD), and nominal data were reported as frequency and percentage.

RESULTS

Of the elderly living in NH, 75 (77.3%) were illiterate, 16 (16.5%) were graduated of primary school and 6 (6.2%) were graduated of high school or university, whereas these frequencies were 40 (41.2%), 44 (45.4%) and 13 (13.4%), respectively in CD elderly. The educational level was found in CD elderly statistically higher than in NH elderly (x^2=26.30, df=2, p<0.001).

Eighty-nine (91.8%) elders, who live in NH, and 76 (78.4%) CD elders had at least one chronic disease. Fifty-

Table 1. Factors influencing depressive symptoms of the elderly

Factor	OR	% 95 CI	p
Living in nursing home	2.93	1.20 - 7.20	0.0192
Having no hobby	2.70	1.20 - 6.10	0.0172
Being uneducated	2.64	1.16 – 5.99	0.0205
Female sex	2.45	1.04 – 5.76	0.0401
Number of diseases	1.64	1.11 – 2.41	0.0134
Psychological trauma	1.13	0.55 – 2.33	0.7355
Age	0.98	0.93 – 1.03	0.3946
Number of drugs	0.71	0.55 – 0.92	0.0079

five (56.7%) of the NH and 38 (39.2%) of the CD elderly group have multiple chronic diseases and that difference was statistically significant (x^2=5.97, df=1, p=0.015). Seventy-six (85.4%) of the NH group and 65 (85.5%) of the CD group with chronic diseases had been using drugs on a regular basis. The difference in drug usage was not statistically significant (x^2=2.10, df=1, p=0.147).

Sixteen (16.5%) of the NH elderly group and 38 (39.2%) of the CD group had hobbies. This difference was statistically significant (x^2=12.42, df=1, p<0.001). Fifty (51.5%) of the NH group and 39 (40.2%) of the CD group had had a history of psychological trauma. There was no statistically significant difference between the two groups (x^2=2.512, df=1, p=0.113).

Seventy-eight (80.4%) of the NH group and 46 (47.4%) of the CD elders had frequency of depressive symptoms according to the cut-off score of 11. The difference was statistically significant (x^2=34.60, df=1, p<0.001).

The results of logistic regression analyses were shown in table 1. Depressive symptoms were 2.93 times (95% CI: 1.20-7.20) more common in the NH group and 2.70 times (95% CI: 1.20-6.10) more common in the elders with no hobby. Depressive symptoms were more common in uneducated elders (OR=2.64; 95% CI: 1.16-5.99) and in women (OR=2.45, 95% CI: 1.04-5.76). Also, the risk of the depressive symptoms was increasing with the increasing number of the medical ailments (OR=1.64; 95% CI: 1.11-2.41). Age and past psychological traumas were found not to be influencing depressive symptoms. Depressive symptoms were significantly lower in the elderly who were using more drugs (OR=0.71; 95% CI:0.55-0.92).

DISCUSSION

Depression is common in the elderly (13-16). Within primary care medicine, there is no agreement on the most effective screening method for late life depression. One of the screening methods is the GDSS (11,17,18). In our study, the frequencies of the depressive symptoms were higher in the NH group than in the CD.

In this study, living in a nursing home, having no hobby, being uneducated, being a female, and having more medical ailments were found to be associated with depressive symptoms. However, the numbers of the drugs used daily were found to have a negative correlation with depressive symptoms. This might be due to a better health perception with poly-pharmacy. We frequently observe that elderly patients perceive their health better as they use more drugs. Drugs might provide a sense of security and control over the unexpected consequences of being elder. Psychological trauma history and age were found not to be associated with depression. In a study carried out with 173 elderly people, the following factors were found to influence symptoms of depression: being female, over 75 years old, being uneducated, using 3 or more drugs, and social isolation (19). Bekaroglu et al. reported that institutional care was associated with depression at 1991 (16). In a study carried out in Ankara, Turkey, nursing-home residents who did not have social health insurance and who had a chronic physical disease were at greater risk of developing depression (8). Symptoms of depression in the NH group may be attributed to their sense of social isolation, bearing in mind that they had lived in traditional crowded families before. CD elders may have been protected from depression because of the multi-generational households.

In 93.8% of the elderly, a chronic disease was identified, and 62.6% had multiple chronic diseases in our study. In another study conducted in Turkey, 71% of the elderly of a NH were found to have a chronic disease, and the mean of the chronic diseases was 2.44 (20). Multiple chronic diseases were reported to be effective on depression (14). It was reported that, depressive primary care patients present with somatic symptoms, which include gastrointestinal, skeletal muscle and cardiovascular complaints, as opposed to describing non-somatic criteria for depression (21). Depression was found in 57.6% of the elderly who have chronic disease (22), and in our study it was 80%. Chronic diseases were thought to be effective on the depression of the elderly. Depressive symptoms were fewer in the elderly using more drugs in our study and this may be attributable to the relief of the physical symptoms.

Losses were reported to be influence depression in the elderly (14). Depression was reported in 58% of the elderly women a month after the death of their

husband. The frequencies were 23% and 17% for six months and one year, respectively (22). Losses in the past were found not to be an effective factor in our study.

CONCLUSION

As a conclusion, besides other risk factors, dwelling in a nursing home seems to be an important risk factor for depressive symptoms in the Turkish elderly. However, in this screening method, grief and depression are easily confused, which is the major limitation in our study. The number of the elderly is another limitation of the study, but that was the total number of the elderly available in NH, and the CD ones were matched according to them. In our study, more frequent symptoms of depression in the NH group may be attributed to their sense of social isolation, because in the past, they had lived in traditional crowded families. It may be because of our cultural tradition of multi-generational households.

In Turkey elderly population is increasing. To handle this increasing population, Turkey has to change health policies, and this study may be a guide to those who are involved in the preparation of health policies and health education.

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