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Evaluation of the Relationship Between Suspicion of Abuse/Neglect and Depression in Individuals Over 65 Years of Age: Self-Awareness Study

65 Yaş Üstü Bireylerde İstismar/İhmal Şüphesi ile Depresyon Arasındaki İlişkinin Değerlendirilmesi: Öz Farkındalık Çalışması

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ABSTRACT

Objective: This study aims to evaluate abuse and neglect in the elderly, its relationship with depression, and insight in those suspected of abuse and neglect.

Methods: The population of the study consisted of 307 elderly individuals who applied to the outpatient clinics of Ondokuz Mayıs University Hospital, who could read, write and had no speech or comprehension problems. In addition to questions on sociodemographic characteristics; the Yesavage Geriatric Depression scale, Elder Abuse Suspicion index and a question about patients' self-awareness of individual abuse-neglect were used as data collection tools.

Results: The possibility of depression was higher in primary school graduates, those who lived with family members or caregivers, and those with chronic illness. Suspicion of abuse was higher in primary school graduates, those who lived with family members or caregivers, those who had no income of their own, those with chronic illness and those who were taking psychiatric medication. Among the cases with suspicion of abuse, 58.8% were of the opinion that they had not been abused ($p<0.05$ for each). When the relationship between cases with suspected abuse and suspected depression was analyzed, a statistically moderate positive correlation between them ($r=0.529$, $p<0.001$) was found.

Conclusion: In our study, the low rate of cases with self-awareness and suspicion of abuse indicates the importance of informing the elderly about abuse and neglect, teaching which behaviors should be considered as abuse and neglect. The elderly who are aware of being abused and neglected will be more willing and courageous to seek help.

Keywords: Elder abuse, geriatric depression, self-awareness, senility



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ÖZ

Amaç: Bu çalışma yaşlılarda istismar ve ihmali, depresyonla ilişkisini, istismar ve ihmal şüphesi olanlarda içgörüyü değerlendirmeyi amaçlamaktadır.

Yöntem: Araştırmanın evrenini Ondokuz Mayıs Üniversitesi Hastanesi polikliniklerine başvuran, okuma yazma bilen, konuşma ve anlama sorunu olmayan 307 yaşlı birey oluşturmuştur. Sosyodemografik özelliklere ilişkin soruların yanı sıra; veri toplama aracı olarak Yesavage Geriatrik Depresyon ölçeği, Yaşlı İstismarı Şüphesi indeksi ve hastaların bireysel istismar ve ihmal konusundaki öz farkındalığına ilişkin sorular kullanıldı.

Bulgular: İlkokul mezunlarında, aile üyeleri veya bakıcılarıyla birlikte yaşayanlarda ve kronik hastalığı olanlarda depresyon görülme olasılığı daha yüksekti. İlkokul mezunlarında, aile bireyleri veya bakıcılarıyla birlikte yaşayanlarda, kendine ait geliri olmayanlarda, kronik hastalığı olanlarda ve psikiyatrik ilaç kullananlarda istismar şüphesi daha fazlaydı. İstismar şüphesi olan olguların %58,8'i istismara uğramadığını düşünüyordu (her biri için $p<0,05$). İstismar şüphesi olan olgular ile depresyon şüphesi olan olgular arasındaki ilişki incelendiğinde aralarında istatistiksel olarak orta düzeyde pozitif korelasyon ($r=0,529$, $p<0,001$) bulunmuştur.

Sonuç: Çalışmamızda istismar şüphesi olan olguların oranının düşük olması, yaşlıların istismar ve ihmal konusunda bilgilendirilmesinin, hangi davranışların istismar ve ihmal olarak değerlendirilmesi gerektiğinin öğretilmesinin önemini göstermektedir. İstismar ve ihmale uğradığının bilincinde olan yaşlılar, yardım arama konusunda daha istekli ve cesur olacaklardır.

Anahtar Kelimeler: Yaşlı istismarı, geriatrik depresyon, öz farkındalık, yaşlılık

INTRODUCTION

Elder abuse is a form of violence that involves the violation of human rights. According to the World Health Organization, elder abuse and neglect is defined as a single or repeated action or lack of appropriate action that harms an older person in any relationship where there is an expectation of trust. This type of abuse includes physical, sexual, psychological and emotional abuse, financial and material abuse, abandonment, neglect, serious loss of dignity and respect (1). As a result of neglect and abuse suffered by elderly individuals, their quality of life is seriously jeopardized due to reasons such as deteriorating functional status, progressive dependency status, poorly evaluated self-health, feelings of helplessness, social isolation and stress (2).

Geriatric depression (GD), also known as late-life depression, refers to depression that starts after the age of 60 (3). According to DSM 5, the cardinal symptoms of major depressive disorder are anhedonia and a depressed mood for most of the day. An episode of major depression is present in the elderly if there is at least one cardinal symptom and four or more of the following symptoms for at least 2 weeks marked decrease or increase in weight or appetite, insomnia or hypersomnia, fatigue, psychomotor agitation or retardation, decreased ability to concentrate or make decisions, feelings of worthlessness or inappropriate guilt, recurrent thoughts of death or suicidal ideation (4). The prominent risk factors of GD include being female, being single or widowed, being a smoker, drug use and especially multiple drugs, low educational status, low income or unemployment, lack of health insurance, poor physical health (comorbidities, disabilities), frailty (decreased grip strength, slowness, low physical activity, etc.), loneliness,

lack of social support, stressful life events, poverty, nutritional deficiencies, cognitive impairment and neurodegenerative diseases (5). Studies show that elder abuse is positively correlated with depressive symptoms (6).

The population aged 65 and over, which is considered as the elderly population in Turkey, increased by 22.6% in the last five years and reached 8 million 451 thousand 669 people (nearly 8 million and 500 thousand) in 2022. The proportion of the elderly population in the total population increased to 9.9% in 2022. According to future population projections, the proportion of elderly population is expected to be 12.9% in 2030, 16.3% in 2040, 22.6% in 2060 and 25.6% in 2080 (7). Due to the physiological and psychological changes that come with increasing age, it will become even more important in the coming years for the elderly to receive regular and quality healthcare services, to facilitate their access to healthcare services, to expand home care services, to train specialized healthcare personnel who know the characteristics and needs of the elderly, to increase the number and quality of institutions such as nursing homes, rehabilitation centers and hospitals, and to allocate adequate budgets for all these (8).

Primary prevention of elder abuse aims to provide individuals with more effective coping methods against various life difficulties so that if a risk factor is identified, attempts can be made to eliminate this factor before abuse occurs. Therefore, it is important to raise awareness of the elderly individual and especially the community caring for the elderly about elder abuse and to create self-awareness for the elderly individual (9). This study aims to evaluate abuse and neglect in the elderly, its relationship with depression and self-insight in those suspected of abuse and neglect.

MATERIALS AND METHODS

Data Collection

The population of the study consisted of 307 elderly individuals who applied to the outpatient clinics of Ondokuz Mayıs University Research and Application Hospital and that could read and write, and had no speech or comprehension problems. The data consisted of questions about sociodemographic characteristics, Yesavage Geriatric Depression scale (short form), Elder Abuse Suspicion index (EASI), and a question about individual abuse-neglect self-awareness.

Questions Identifying Sociodemographic Characteristics

These questions were prepared by the researchers and include introductory information about the elderly person. It includes the following 10 questions. Age, gender, marital status, place of residence, educational status, income, cohabitants, presence of chronic diseases, whether there is a psychiatric medication used continuously and if so, the duration.

Elder Abuse Suspicion Index (EASI)

This index was developed by Yaffe, Wolfson, Lithwick, Weiss to predict the suspicion of abuse and neglect in elderly patients and consists of six questions. A “yes” answer to one or more of the questions 2-6 raises suspicion of maltreatment. Questions 1-5 are answered by asking the patient and question 6 is answered by the physician (10). This index was adapted into Turkish by İzbirak and Karakuş (11) and the validity and reliability study of the Turkish version in the elderly (Cronbach's $\alpha=0.711$) was conducted by Yurdakul et al. (12). After obtaining the necessary permissions, question 6 was removed and the index was applied to the patients as a questionnaire form. The sixth question in the EASI was omitted due to the inability to reach the family physicians in an office setting. With this omission, we are aware that there is a risk that some possible past observation might be missed.

Geriatric Depression Scale (Short Form)

The scale was prepared by Sheikh and Yesavage (13) and includes 15 questions in total. Five questions (1,5,7,11) are positive and the others are negative. In the evaluation of the scale, no answers to positive questions and yes answers to negative questions receive 1 point each. A total score of 6 and above on the scale is considered significant for the diagnosis of depression (13). The validity and reliability study of the Geriatric Depression scale (short form) for the Turkish elderly population (Cronbach's $\alpha=0.920$) was conducted by Durmaz et al. (14).

Self-Awareness Question in Terms of Being Neglected or Abused

Especially in patients with suspicion of abuse and neglect, patients were asked “Do you think you have been neglected

or abused by your relatives or others?” in order to determine whether they were self-aware of being neglected or abused. They were asked to answer yes or no.

After obtaining the necessary permissions, the questionnaires and scales were carried out face-to-face and one-on-one interviews, taking into account volunteerism and the ability to communicate.

Statistical Analysis

IBM SPSS Statistics V22.0 (IBM Corp. in Armonk, NY.) was used for statistical analysis of the data. Pearson chi-square and Fisher's exact probability tests were used to evaluate categorical variables. In correlation analyses, Pearson correlation analysis was applied to the data that fit the normal distribution and Spearman correlation analysis was applied to the data that did not fit the normal distribution. Statistical significance level was accepted as $p<0.05$ in all tests.

Ethical Approval

Prior to the study, ethics committee approval was obtained from Ondokuz Mayıs University Clinical Research Ethics Committee (date: 14.11.2023, approval number: B.30.2.ODM.0.20.08/40-546) and institutional permissions were obtained from the chief physician's office. Participants were informed about the purpose, process, and method of the study and that participation in the study was voluntary. Verbal consent was obtained from the participants. In this study the criteria of the Declaration of Helsinki were taken into account.

RESULTS

Of the participants, 167 (54.4%) were male, 171 (55.7%) were married and 133 (43.3%) lived in the city center. When the educational status of the participants was analyzed, 183 (59.6%) of the participants were primary school graduates. Of the participants, 231 (87.6%) had their own income and 168 (54.7%) lived with their spouse. The distribution of background information and demographic data of the participants is shown in Table 1.

When the cases suspected of being abused according to the EASI score were analyzed, a statistically significant relationship was found between the suspicion of being abused and the educational status of the patients ($p<0.001$). This statistical difference was between primary school graduates and other education groups. A statistically significant relationship was found between the suspicion of abuse and the patients' cohabitants ($p<0.001$). There was a statistically significant correlation between having their own income and suspicion of abuse ($p<0.001$). There was a statistically significant relationship between the presence of chronic diseases and suspicion of abuse ($p=0.002$). There was a statistically significant relationship between the use of psychiatric medication and

suspicion of abuse ($p=0.001$). Suspicion of abuse was higher in primary school graduates, those who lived with other family members and caregivers, those who had no income of their own, those with chronic diseases and those who used psychiatric medication. Among the patients with suspicion of abuse, 41.2% thought that they had been abused and 58.8% thought that they had not been abused (Table 2).

According to the Yesavage Geriatric Depression scale, cases with suspected depression were analyzed according to educational status, cohabitants, income and chronic diseases. There was a statistically significant correlation between the possibility of depression and educational status ($p<0.001$). This statistical difference was found to be between primary school graduates and high school and university graduates and between university graduates and people who had non-formal

education, primary school graduates. When the possibility of depression was evaluated with the cohabitants of the cases, a statistically significant relationship was observed ($p=0.008$). No statistically significant difference was found when the relationship between the income status and possibility of depression was analyzed ($p>0.05$). A statistically significant relationship was found between chronic disease and possibility of depression ($p<0.001$) (Table 3). Possibility of depression was found to be higher in primary school graduates, those living with other family members or caregivers, and those with chronic diseases. When the relationship between cases with suspected abuse and cases with suspected depression in our study was examined, it was found that there was a statistically moderate positive correlation between these two groups ($r=0.529$, $p<0.001$). When the relationship between cases with suspicion of abuse and self-awareness of the cases was examined, it was found that there was a statistically weak positive correlation between the two groups ($r=0.463$, $p<0.001$).

Table 1. Demographic data and background information

	n	%
Gender		
Male	167	54.4
Female	140	45.6
Marital status		
Married	171	55.7
Widow	132	43.0
Never married	4	1.3
Place of living		
Provincial center	133	43.3
District center	127	41.4
Village/town	47	15.3
Education status		
Non-formal education	69	22.5
Primary school	183	59.6
High school	38	12.4
University	17	5.5
Own income		
Yes	231	75.2
No	76	24.8
Chronic disease		
Yes	269	87.6
No	38	12.4
Continuous use of psychiatric medication		
Yes	43	14.0
No	264	86.0
The person with whom one lives		
Spouse	168	54.7
Other family members	81	26.4
Caregiver	6	2.0
Alone	52	16.9

DISCUSSION

In general, depression in the elderly occurs as a result of complex interactions of social, psychological and biological factors (15,16). In our study, it was aimed to determine the relationship between neglect and abuse experienced by elderly individuals and depression, and to determine whether they have self-awareness of neglect or abuse if they are suspected of being neglected or abused.

In a meta-analysis study, the average prevalence of depression in the elderly was 31.74%, and the cumulative prevalence of depression in the elderly population was 40.78% in developing countries and 17.05% in developed countries. The mean prevalence of depression was found to be 40.60% in studies using the GDS-30 (Geriatric Depression scale) and 35.72% in studies using the GDS-15 (Geriatric Depression scale short form) (17). The GDS-15 was used in the elderly individuals who participated in our study and the presence of depression in the elderly was found to be 57.0%. In our study, depression rates were found to be higher than the literature. The reason for this is thought to be the limited size of the selected sample, the fact that the population of the study consisted only of individuals with current health problems who applied to the hospital, the increasing economic problems in the elderly recently, limitations in public health services and the shrinkage of families, and isolation due to migration to big cities.

Disu et al. (5) in their study, they thought that depression was lower in elderly people with chronic diseases and that this was because individuals learned to live with their chronic diseases and accept this situation. Many literature studies have shown that there is a strong and positive relationship between depression and the presence of chronic cognitive and physical diseases such as diabetes, heart diseases, and stroke (18-20).

Table 2. Distribution of the relationship between suspicion of abuse-neglect and demographic data and background information

	Suspicion of abuse		Test statistics	p-value
	Yes	No		
Education status			21.778	<0.001*
Non-formal education	28 (18.9%) ^{a,b}	41 (25.8%) ^{a,b}		
Primary school	106 (71.6%) ^b	77 (48.4%) ^b		
High school	12 (8.1%) ^a	26 (16.4%) ^a		
University	2 (1.4%) ^a	15 (9.4%) ^a		
The person with whom one lives			21.476	<0.001*
Spouse	69 (46.6%) ^a	99 (62.3%) ^a		
Other family members	53 (35.8%) ^b	28 (17.6%) ^b		
Caregiver	6 (4.1%) ^b	0 (0.0%) ^b		
Alone	20 (13.5%) ^a	32 (20.1%) ^a		
Own income			29.037	<0.001**
Yes	91 (61.5%)	140 (88.1%)		
No	57 (38.5%)	19 (11.9%)		
Chronic disease			9.356	0.002**
Yes	139 (93.9%)	130 (81.8%)		
No	9 (6.1%)	29 (18.2%)		
Continuous use of psychiatric medication			10.340	0.001**
Yes	31 (20.9%)	12 (7.5%)		
No	117 (79.1%)	147 (92.5%)		
Self-awareness			65.832	<0.001**
Yes	61 (41.2%)	5 (3.1%)		
No	87 (58.8%)	154 (96.9%)		

For each variable, there is no significant difference between categories with the same header (letter).
*Pearson chi square test, **Fisher's exact probability test, p<0.05 was considered significant for all tests.

Table 3. Distribution of the relationship between suspicion of the presence of depression and demographic data and background information

	Suspicion of depression		Test statistics	p-value
	Yes	No		
Education status			19.282	<0.001*
Non-formal education	41 (23.3%) ^{a,b}	28 (21.4%) ^{a,b}		
Primary school	117 (66.5%) ^b	66 (50.4%) ^b		
High school	15 (8.5%) ^{a,c}	23 (17.6%) ^{a,c}		
University	3 (1.7%) ^c	14 (10.7%) ^c		
The person with whom one lives			11.905	0.008*
Spouse	88 (50.0%) ^a	80 (61.1%) ^a		
Other family members	56 (31.8%) ^b	25 (19.1%) ^b		
Caregiver	6 (3.4%) ^b	0 (0.0%) ^b		
Alone	26 (14.8%) ^a	26 (19.8%) ^a		
Own income			2.955	0.086**
Yes	126 (71.6%)	105 (80.2%)		
No	50 (28.4%)	26 (19.8%)		
Chronic disease			28.683	<0.001**
Yes	170 (96.6%)	99 (75.6%)		
No	6 (3.4%)	32 (24.4%)		

For each variable, there is no significant difference between categories with the same header (letter).
*Pearson chi square test, **Fisher's exact probability test, p<0.05 was considered significant for all tests.

Similarly, in our study, a relationship was found between the presence of chronic diseases and depression. It is thought that this situation is due to the increase in chronic diseases, resulting in the elderly having difficulty participating in daily life activities and possibly becoming more dependent on others. İlhan et al. (15) showed in their study that not being at least a primary school graduate was positively associated with depression. Similarly, in a study conducted in Japan, the prevalence of depression was found to be higher in elderly people with less than 6 years of education (21). Similarly, in our study, it was observed that there was a relationship between education level and the presence of depression. The prevalence of depression was found to be higher in the non-formal education and primary school graduate group than in the high school and university graduate groups.

Some literature studies have shown that there is a relationship between GD and low-income level and poverty (20,22-24). In some studies, no significant relationship was found between income status and GD (25,26). In our study, no significant relationship was found between income or not and the presence of depression. In order to examine this situation, more detailed data investigating the economic situation of the elderly is needed. However, the data in our study are not sufficient to meet this.

Similar to our study; studies have found that there is a relationship between marital status and depression (19,27-29). In our study, those living with their spouse or alone; depression rates were lower than those living with other family members or caregivers. We think that living with an extended family may be a risk factor for depression, as the personal needs of the elderly cannot be met due to the number of people living in the extended family, and family dynamics may be involved. There are studies in the literature, similar to our findings, that find depression to be higher in unmarried individuals than in married individuals (19,30). Due to the traditional structure of Turkish society, unmarried individuals, especially in rural areas, are generally unable to participate in social environments, and while struggling with old age problems, they are deprived of the support they can receive from both the family and the social environment, thus experiencing the problem of depression more frequently.

In the study conducted by Şen and Meriç (29) to examine abuse and depression in old age; it was reported that there was a positive and significant relationship between the mean score of the GDS and the mean scores of all Hwalek-Sengstock Elder Abuse Screening test subscales, and as a result of the regression analysis of depression seen in elderly individuals, exposure to abuse contributed significantly to depression. In our study, we found that there was a moderate positive correlation between EASI scores and GDS scores.

There are many studies measuring the prevalence of elderly people being abused. In the study conducted by Artan (31) on the elderly living in nursing homes, it was observed that the rate of exposure to economic abuse by the relatives of the elderly participants in the research was 33% before they entered the nursing home. Patel et al. (32) reported that the experience of being exposed to abuse in the elderly was 24%. The rate of exposure to abuse or neglect among the elderly who participated in our study, calculated according to the EASI score, was 48.20%. The reason for the relatively high rate of exposure to abuse or neglect in our study is; it was thought that cases with severe disabilities, medical conditions that cause addiction, vision, hearing or speech difficulties, psychiatric diseases, and who were likely to be abused and neglected for these reasons, were also included in the study. In our study, there was a statistically significant relationship between the presence of chronic diseases and suspicion of abuse.

Dong et al. (33) reported that elderly individuals who live alone are more exposed to maltreatment. Lachs et al. (34) evaluates loneliness as a protective factor in his study; it states that the frequency of abuse is less among elderly individuals who live alone. It also found that the most common perpetrators of maltreatment were adult children (45%) and spouses (26%), while other perpetrators of maltreatment included grandchildren and paid caregivers. Similarly, in our study, it was observed that the abuse-neglect suspicion score was lower in elderly people living alone. A statistically significant relationship was found between the suspicion of abuse-neglect and the people with whom the cases lived. This difference was between the group living with their spouse or alone and the elderly living with other family members or caregivers.

Some studies in the literature have found a relationship between education, income level and exposure to abuse-neglect (29,32). Similarly, in our study, when patients suspected of being abused according to the EASI score were examined, there was a statistically significant relationship between the suspicion of being abused and the educational status of the patients and their own income and the suspicion of abuse. The prevalence of abuse-neglect was significantly higher in elderly patients who did not have their own income.

In our study, 41.2% of patients with suspected abuse thought they were abused, while 58.8% thought they were not abused. Kalaycı et al. (35) in their study on the perception of abuse by the elderly, found that the majority of the elderly who participated in the study; it was found that they interpreted the actions in the expressions created to describe and exemplify physical and economic abuse as abuse and accepted the abuse, but 26% of the elderly did not see the statement "family members yelling at the elderly when stressed" under the heading of psychological abuse as abuse, and under the

heading of neglect “bedridden, living alone”. The fact that 50.6% of the elderly do not see the statement “elderly people” as neglect shows that the awareness of the elderly about abuse and neglect still needs to be increased. Although there are no sufficient studies in the scanned literature regarding the perception and self-awareness of the elderly who are neglected and abused; we think that the elderly who are exposed to abuse and neglect tend to hide their situation because they are afraid of being exposed to repeated violence and losing their ties with their families. It has been thought that the fact that pension wages in our country are below the minimum living standard of the elderly and that the elderly who do not have an income depend on their family for care may cause tension between the individuals who take care of the elderly and the elderly. We think that this situation both facilitates the abuse of the elderly and contributes to the tendency of the elderly to hide their situation. The fact that the rate of suspicion of neglect-abuse is higher in the elderly who do not have an income in our study supports these thoughts. Kalaycı et al. (35) in their study, although they mostly held family members responsible for elderly abuse and neglect; the fact that 51.2% of them say they are against the legal punishment of family members who abuse the elderly also supports our ideas.

CONCLUSION

One of the most important problems regarding elder abuse is detecting abuse-neglect. One of the most important factors affecting the detection is whether the elderly person considers the ill-treatment applied to him/her as abuse. We think that our study is important in terms of examining insight into elderly abuse and neglect. Elderly people should be informed about abuse; it should be taught which behaviors should be considered abuse and the elderly person should be made to recognize abuse-neglect. The elderly who are aware that they have been abused and neglected will be more willing and courageous to get help.

Especially for the elderly who have an increased rate of abuse and neglect and who have no income or low income; at the same time, economic recovery programs should be created for both the elderly and those who for the them in order to alleviate the financial and moral burden on family members who are responsible for the care of the elderly.

Healthcare professionals also need to be made aware of elder abuse and be more sensitive in reporting abuse. Being aware of elderly abuse in different health institutions such as family health centers, community health centers and emergency services can play an important role in detecting and reducing the number of cases of elderly people who have frequent contact with the health system.

ETHICS

Ethics Committee Approval: The study was initiated with the approval of the ethics committee approval was obtained from Ondokuz Mayıs University Clinical Research Ethics Committee (decision number: B.30.2.ODM.0.20.08/40-546 date: 14.11.2023). In this study the criteria of the Declaration of Helsinki were taken into account.

Authorship Contributions

Concept: A.T., N.C.A., M.M.K., Design: A.T., N.C.A., M.M.K., Data Collection or Processing: A.T., N.C.A., M.M.K., Analysis or Interpretation: A.T., N.C.A., M.M.K., Literature Search: A.T., N.C.A., M.M.K., Writing: A.T., N.C.A., M.M.K.

Conflict of Interest: The authors declare that there is no conflict of interest.

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REFERENCES

1. World Health Organization. Abuse of older people [Available from: <https://www.who.int/news-room/fact-sheets/detail/abuse-of-older-people>]
2. Dong X. Medical implications of elder abuse and neglect. *Clin Geriatr Med.* 2005;21(2):293-313. <https://doi.org/10.1016/j.cger.2004.10.006>
3. Van Damme A, Declercq T, Lemey L, Tandt H, Petrovic M. Late-life depression: issues for the general practitioner. *Int J Gen Med.* 2018;11:113-120. <https://doi.org/10.2147/IJGM.S154876>
4. Amerikan Psikiyatri Birliği, Mental Bozuklukların Tanısal ve Sayımsal El Kitabı, Dördüncü Baskı (DSM-5) (Çev. ed.: E Köroğlu). Ankara, Hekimler Yayın Birliği, 2013
5. Disu TR, Anne NJ, Griffiths MD, Mamun MA. Risk factors of geriatric depression among elderly Bangladeshi people: a pilot interview study. *Asian J Psychiatr.* 2019;44:163-169. <https://doi.org/10.1016/j.ajp.2019.07.050>
6. Nisha C, Manjaly S, Kiran P, Mathew B, Kasturi A. Study on elder abuse and neglect among patients in a medical college hospital, Bangalore, India. *J Elder Abuse Negl.* 2016;28(1):34-40. <https://doi.org/10.1080/08946566.2015.1113599>
7. Türkiye İstatistik Kurumu İstatistiklerle Yaşlılar [Turkish Statistical Insitutie, Elderly People With Statistics] Turkish2022. Available from: <https://data.tuik.gov.tr/Bulten/Index?p=İstatistiklerle-Yaşlılar-2022-49667>.
8. Tekin ÇS, Fatih K. Dünyada ve Türkiye’de yaşlılık. *Uluslararası Bilimsel Araştırmalar Dergisi (IBAD).* 2018;3(1):219-229. <https://doi.org/10.21733/ibad.370584>
9. Arpacı F, Bakır B. Yaşlı İstismarı ve İhmali. *Türkiye Sosyal Araştırmalar Dergisi.* 2017;21(3):691-703.
10. Yaffe MJ, Wolfson C, Lithwick M, Weiss D. Development and validation of a tool to improve physician identification of elder abuse: The Elder Abuse Suspicion Index (EASI). *J Elder Abuse Negl.* 2008;20(3):276-300. <https://doi.org/10.1080/08946560801973168>
11. İzbrak G, Karakuş S. The Elder Abuse Suspicion Index © (EASI). EASI - Turkish version. Available from: https://www.mcgill.ca/familymed/files/familymed/easi_turkish_jan_2020.pdf.
12. Yurdakul ES, Veizi BGY, Avcı C, Yazır HT, Avaner E, Naharcı MI, et al. Reliability and validity of the Turkish version of the elder abuse suspicion index in community-dwelling older adults. *Turk J Med Sci.* 2023;53(1):432-438. <https://doi.org/10.55730/1300-0144.5600>
13. Sheikh JI, Yesavage JA. Geriatric Depression Scale (GDS): Recent evidence and development of a shorter version. *Clinical Gerontologist: The Journal of Aging and Mental Health.* 1986;5(1-2):165-173. https://doi.org/10.1300/J018v05n01_09

14. Durmaz B, Soysal P, Ellidokuz H, Isik AT. Validity and reliability of geriatric depression scale-15 (short form) in Turkish older adults. *North Clin Istanbul*. 2018;5(3):216-220. <https://doi.org/10.14744/nci.2017.85047>
15. İlhan MN, Maral I, Kitapçı M, Aslan S, Çakır N, Bumin MA. Yaşlılarda depresif belirtiler ve bilişsel bozukluğu etkileyebilecek etkenler. *Klinik Psikiyatri*. 2006;9(4):177-184.
16. Suwanmanee S, Nanthamongkolchai S, Munsawaengsub C, Taechaboonsersak P. Factors influencing the mental health of the elderly in Songkhla, Thailand. *J Med Assoc Thai*. 2012;95(Suppl 6):8-15.
17. Zenebe Y, Akele B, W/Selassie M, Necho M. Prevalence and determinants of depression among old age: a systematic review and meta-analysis. *Ann Gen Psychiatry*. 2021;20(1):55. <https://doi.org/10.1186/s12991-021-00375-x>
18. Feng L, Li P, Lu C, Tang W, Mahapatra T, Wang Y, et al. Burden and correlates of geriatric depression in the Uyghur elderly population, observation from Xinjiang, China. *Plos One*. 2014;9(12):e114139. <https://doi.org/10.1371/journal.pone.0114139>
19. Arslantas D, Ünsal A, Ozbabalık D. Prevalence of depression and associated risk factors among the elderly in Middle Anatolia, Turkey. *Geriatr Gerontol Int*. 2014;14(1):100-108. <https://doi.org/10.1111/ggi.12065>
20. Assil SM, Zeidan ZA. Prevalence of depression and associated factors among elderly sudanese: a household survey in Khartoum State. *East Mediterr Health J*. 2013;19(5):435-440. <https://doi.org/10.26719/2013.19.5.435>
21. Murata C, Kondo K, Hirai H, Ichida Y, Ojima T. Association between depression and socio-economic status among community-dwelling elderly in Japan: the Aichi Gerontological Evaluation Study (AGES). *Health Place*. 2008;14(3):406-414. <https://doi.org/10.1016/j.healthplace.2007.08.007>
22. Boman E, Gustafson Y, Häggblom A, Santamäki Fischer R, Nygren B. Inner strength—associated with reduced prevalence of depression among older women. *Aging Ment Health*. 2015;19(12):1078-1083. <https://doi.org/10.1080/13607863.2014.977775>
23. Fernández-Niño JA, Manrique-Espinoza BS, Bojorquez-Chapela I, Salinas-Rodríguez A. Income inequality, socioeconomic deprivation and depressive symptoms among older adults in Mexico. *Plos One*. 2014;9(9):e108127. <https://doi.org/10.1371/journal.pone.0108127>
24. Balcı E, Şenol V, Eşel E, Günay O, Elmalı F. 65 Yaş ve Üzeri Bireylerin Depresyon ve Malnutrisyon Durumları Arasındaki İlişki. *Turkish Journal of Public Health*. 2012;10(1):37-43.
25. Bahar A, Tutkun H, Sertbaş G. Huzurevinde yaşayan yaşlıların anksiyete ve depresyon düzeylerinin belirlenmesi. *Anadolu Psikiyatri Dergisi*. 2005;6(4):227-239.
26. Altay B, Avcı İA. Samsun Alanlı Köyünde Yaşayan Yaşlılarda Aileden Alınan Sosyal Destek ile Depresif Belirti Yaşama Sıklığı Arasındaki İlişki. *TAF Prev Med Bull*. 2009;8(2):139-146.
27. Yaka E, Keskinoglu P, Ucku R, Yener GG, Tunca Z. Prevalence and risk factors of depression among community dwelling elderly. *Arch Gerontol Geriatr*. 2014;59(1):150-154. <https://doi.org/10.1016/j.archger.2014.03.014>
28. Helvik AS, Skancke RH, Selbaek G. Screening for depression in elderly medical inpatients from rural area of Norway: prevalence and associated factors. *Int J Geriatr Psychiatry*. 2010;25(2):150-159. <https://doi.org/10.1002/gps.2312>
29. Şen F, Meriç M. Determination of abuse and depression in the elderly. *J Elder Abuse Negl*. 2020;32(1):60-71. <https://doi.org/10.1080/08946566.2019.1691697>
30. Yan XY, Huang SM, Huang CQ, Wu WH, Qin Y. Marital status and risk for late life depression: a meta-analysis of the published literature. *J Int Med Res*. 2011;39(4):1142-1154. <https://doi.org/10.1177/147323001103900402>
31. Artan T. Huzurevinde kalmakta olan yaşlılarda yaşlı istismarının bir türü olarak ekonomik istismar. *Sağlık Bilimleri ve Meslekleri Dergisi*. 2016;3(1):48-56. <https://doi.org/10.17681/hsp.78913>
32. Patel VK, Tiwari DS, Shah VR, Patel MG, Raja HH, Patel DS. Prevalence and predictors of abuse in elderly patients with depression at a tertiary care centre in Saurashtra, India. *Indian J Psychol Med*. 2018;40(6):528-533. https://doi.org/10.4103/IJPSYM.IJPSYM_18_18
33. Dong X, Simon MA, Gorbien M, Percak J, Golden R. Loneliness in older Chinese adults: a risk factor for elder mistreatment. *J Am Geriatr Soc*. 2007;55(11):1831-1835. <https://doi.org/10.1111/j.1532-5415.2007.01429.x>
34. Lachs MS, Williams C, O'Brien S, Hurst L, Horwitz R. Risk factors for reported elder abuse and neglect: A nine-year observational cohort study. *The Gerontologist*. 1997;37(4):469-474. <https://doi.org/10.1093/geront/37.4.469>
35. Kalaycı I, Yazıcı SÖ, Özkul M, Küpeli A. Perceptions of the elderly on elderly abuse. *Turkish Journal of Geriatrics/Türk Geriatri Dergisi*. 2016;19(4):232-237.