

Examination of the Relationship Between Elder Abuse Risk, Dependence in Activities of Daily Living, and Depression Level

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RESEARCH ARTICLE ABSTRACT

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

Author contribution
NA designed the study. HS, FYB collected the data. HS, FYB analyzed the data. HS, FYB prepared the manuscript. All authors approved the final version for submission.

Data Availability
Data supporting the findings of this study are available upon reasonable request can be obtained from the corresponding author.

This cross-sectional study aimed to determine the risk of elder abuse among older adults and to examine the relationship between abuse risk and sociodemographic characteristics, dependence in activities of daily living, and depression. Data were collected using a Sociodemographic Questionnaire, the Mini-Cog Test, the Hwalek-Sengstock Elder Abuse Screening Test, the Katz Index of Activities of Daily Living, the Lawton & Brody Instrumental Activities of Daily Living Scale, and the 15-item Geriatric Depression Scale. Appropriate comparative statistical tests were applied ($p < 0.05$).

A total of 150 older adults (50% female; mean age 75.35 ± 6.95 years) participated. Elder abuse risk (Hwalek-Sengstock Elder Abuse Screening Test ≥ 3) was present in 17.3% of participants. Women and single individuals had significantly higher scores in the “vulnerable elder characteristics” subscale. Lower income was associated with higher scores in the “potentially abusive situation” subscale. Lack of social security was linked to higher “personal rights violation and direct abuse” scores. A positive and weak correlation existed between the Hwalek-Sengstock Elder Abuse Screening Test and depression ($r = 0.339$, $p < 0.001$). Logistic regression showed that each 1-point increase in the Geriatric Depression Scale score increased abuse risk by 1.37 times (OR = 1.37; $p < 0.001$). Higher Katz Index of Activities of Daily Living independence decreased abuse risk (OR = 0.30; $p = 0.02$).

Elder abuse remains a significant problem across all sociodemographic groups. Depression and dependence in daily activities are important predictors of abuse risk. Regular screening in primary care, close monitoring of high-risk groups, improving awareness among healthcare workers, and strengthening geriatric care services may contribute to preventing elder abuse.

Key Words: Elder abuse, depression, daily activities, geriatric health

INTRODUCTION

The World Health Organization (WHO) defines aging as a period in which individuals experience reduced adaptation to their environment, classifying those aged ≥ 65 years as “elderly” and those ≥ 85 years as “oldest old” (WHO, 1984). According to United Nations data, approximately 727 million people worldwide were aged ≥ 65 years in 2020, and this number is expected to more than double over the next 30 years (report U. World population ageing. United Nations New York). In Turkey, older adults constitute 9.5% of the total population, and this proportion is projected to exceed 11% in the coming years, placing the country among nations with a rapidly aging population (Kurumu Tİ,2020). Aging is associated with physical and social functional decline, often resulting in increased dependence on others for daily needs (Artan, 2013).

One of the major concerns in aging populations is the increased risk of elder abuse. Although child abuse and intimate partner violence receive greater public attention, elder abuse remains underrecognized and underreported. Elder abuse is defined as any act or omission occurring within a relationship of trust that results in harm or distress to an older person (WHO, 2002). It is both a preventable public health problem and a violation of fundamental human rights. A 2017 meta-analysis estimated that one in six older adults worldwide experiences some form of abuse (Yon, Mikton, Gassoumis, & Wilber, 2017).

The detection of elder abuse is frequently overlooked due to insufficient awareness among healthcare and social service professionals, limited knowledge of risk factors, uncertainty

regarding appropriate screening methods, and reluctance to report suspected cases (Akdemir, 2008; Gülen et al., 2013). Therefore, contemporary studies are needed to enhance recognition, prevention, and early intervention strategies. This study aimed to assess the risk of elder abuse among older adults living in Isparta and to examine its relationship with sociodemographic characteristics, depression, and dependence in activities of daily living.

MATERIALS AND METHODS

Study Design and Setting

This descriptive cross-sectional study was conducted between October 1, 2021, and April 1, 2022, in three Family Health Centers selected by random sampling among units with similar demographic and sociocultural characteristics.

Participants were individuals aged ≥ 65 years who voluntarily agreed to participate. Exclusion criteria included diagnosed psychiatric illness, hearing or speech impairment preventing communication, and cognitive impairment (Mini-Cog positive).

Sample Size Consideration: Although an a priori power analysis was not performed, a post-hoc power analysis based on the primary logistic regression model (OR = 1.37, $\alpha = 0.05$, $n = 150$) indicated approximately 80% statistical power to detect a moderate association between depression and elder abuse risk. Data collection instruments included validated and culturally adapted scales.

Data collection instruments included: a Self-Developed Sociodemographic Information Form (literature-based), Mini-Cog Test, Hwalek-Sengstock Elder Abuse Screening Test (H-SEAST), Katz Index of Independence in Activities of Daily Living (Katz ADL), Lawton & Brody Instrumental Activities of Daily Living Scale (LBIADL), and the Geriatric Depression Scale Short Form (GDS-SF).

Sociodemographic Information Form collected: age, sex, education, marital status, employment status, income level, health insurance, chronic disease, regular medication use, smoking, alcohol use, living situation, caregiver presence and relationship, etc.

Mini-Cog: A valid screening method for cognitive function in geriatric populations in Turkey, combining the clock drawing test with three-word recall; a negative Mini-Cog helps exclude dementia (Trongsakul, Lambert, Clark, Wongpakaran, & Cross, 2015).

Hwalek-Sengstock Elder Abuse Screening Test (H-SEAST): A 15-item screening tool developed to screen individuals at high risk for elder abuse. The Turkish version was published in 2016 with 14 items. It comprises three subdomains: vulnerable elder characteristics, identification of potential abuse, and violation of personal rights and direct abuse. Higher scores indicate higher risk of elder abuse (Özmete, 2016).

Katz Index of Activities of Daily Living (ADL): Assesses dependency in basic activities of daily living including bathing, toileting, transferring, continence, dressing, and feeding. Scores range from 0 to 6; higher scores reflect greater independence, with 6 indicating full independence (Arik et al., 2015).

Lawton & Brody Instrumental ADL Scale (LBIADL):

Assesses disability and dependency in older adults living in the community. Includes eight items: use of telephone, cooking, shopping, doing laundry, handling daily housework, taking medications, traveling, and financial management. Each item scores 0 (unable or partially able) or 1 (able). Total scores range from 0 (low function, dependent) to 8 (high function, independent) (Lawton & Brody, 1969).

Geriatric Depression Scale Short Form (GDS-SF): 15-item yes/no scale with 0 or 1 points per item; includes five reverse-scored items. A cut-off of ≥ 5 indicates depression. Scores: 0–4 normal, 5–8 mild depression, 9–11 moderate, 12–15 severe (Durmaz, Soysal, Ellidokuz, & Isik, 2018).

Data were analyzed using IBM SPSS Statistics for Windows, Version 23.0. Normality was assessed with Kolmogorov-Smirnov; homogeneity of variances with Levene's test. Independent samples t-test or Mann-Whitney U test were used for two-group comparisons; Kruskal-Wallis H test or ANOVA for three or more groups. Spearman's rho was used for correlation analyses. Logistic regression examined predictors of elder abuse risk. Significance level was set at $p < 0.05$. Questionnaires with incomplete key scale items were excluded from the final analysis. No imputation method was applied, and analyses were conducted using complete-case data.

Ethical approval was obtained from Süleyman Demirel University Faculty of Medicine Clinical Research Ethics Committee (Approval No. 72867572-050.01.04-125639 dated 29.09.2021). Research permission to apply the survey at Family Medicine Units of the Isparta Provincial Public Health Directorate was granted (Date: 25.10.2021; No: E-16657963-799).

RESULTS

A total of 150 participants (75 female, 75 male) with a mean age of 75.35 ± 6.95 years participated. The distribution by sociodemographic characteristics is shown in Table 1.

When the total H-SEAST scores of the elderly were examined, 124 (82.67%) had a score below 3, while 26 (17.33%) had a score of 3 or higher. The mean scores for the subscales were: first subscale 0.59 ± 0.64 , second subscale 0.26 ± 0.50 , third subscale 0.40 ± 0.85 .

Table 2 presents the comparison of the features of vulnerable elder characteristics, direct abuse, and potential abuse states with sociodemographic characteristics using the HSYATT scale.

There was no statistically significant difference between gender or marital status and the mean scores of the H-SEAST subdimensions "personal rights violation and direct abuse" and "potentially abusive situations." However, the mean scores of the "vulnerable elder characteristics" subdimension were significantly higher among women and unmarried participants ($p = 0.013$ and $p = 0.020$, respectively). No statistically significant differences were found between participants' education level, income status, or social security status and the mean scores of the H-SEAST subdimensions "vulnerable elder characteristics," "personal rights violation and direct abuse," and "potentially abusive situations." However, the mean score of the "potentially abusive situations" subdimension was significantly higher among participants whose income was lower than their expenses compared with those whose income equaled their expenses ($p = 0.028$). Participants without social security had significantly higher "personal rights violation and direct abuse" scores compared with those with social security ($p = 0.008$). No statistically significant differences were detected between the H-SEAST subdimension scores and the presence of chronic

disease, regular medication use, smoking status, living in their own home or someone else's home, or living arrangement. However, the mean "vulnerable elder

Table 1. Distribution of Participants by Sociodemographic Characteristics

Characteristic	Mean \pm SD	Median (Min-Max)
Age	75.35 \pm 6,95	75(65-89)
	n=150	%
Gender		
Female	75	50
Male	75	50
Education		
Illiterate	34	2,7
Primary school	96	64
Secondary school	9	6
University and higher	11	7.3
Marital Status		
Married	115	76.7
Single	35	23.3
Working Status		
Working	4	2.7
Retired/Not working	146	97.3
Income Level		
Less than expenses	26	17.3
About equal	118	78.7
More than expenses	6	4
Social Security		
Yes	146	97.3
No	4	2.7
Chronic Disease		
Yes	125	83.3
No	25	16.7
Regular Medication Use		
Yes	119	79.3
No	31	20.7
Smoking		
Yes	138	92
No	12	8
Alcohol Use		
Yes	1	0.7
No	149	99.3
Residence		
In own home	146	97.3
Relative's home	4	2.7
Nursing home	0	0
Living Situation		
Alone	23	15.3
With spouse	94	62.7
With spouse and other family members	18	12
With other family members	15	10

characteristics" score was significantly higher among individuals living alone compared with those living with other family members ($p = 0.019$). No statistically significant differences were found between the H-SEAST subdimensions and whether the participants had a caregiver or the identity of the caregiver. Based on the GDS-SF scores of all patients, 96 (64%) had no depression, 37 (24.6%) had mild depression, 13 (8.7%) had moderate depression, and 4 (2.7%) had severe

depression. According to the ADL scores, 100 patients (66.7%) were identified as fully independent. Based on the IADL scores, 58 patients (38.7%) were fully independent.

A positive and weak correlation was found between the H-SEAST and GDS-SF scales ($r = 0.339$, $p < 0.001$) and a negative weak correlation between the H-SEAST and the ADL scores ($r = -0.266$, $p = 0.001$). A weak negative correlation was found between the GDS-SF and both ADL and IADL scores [($r = -0.233$, $p = 0.004$); ($r = -0.308$, $p < 0.001$)]. A weak positive correlation was found between the GDS-SF and the "vulnerable elder characteristics" subdimension ($r = 0.339$, $p < 0.001$), a weak positive correlation with the "personal rights violation and direct abuse" subdimension ($r = 0.365$, $p < 0.001$), and a very weak positive correlation with the "potentially abusive situations" subdimension ($r = 0.170$, $p = 0.038$). A weak negative correlation was found between ADL scores and the "vulnerable elder characteristics" subdimension ($r = -0.266$, $p < 0.001$) and between ADL and the "personal rights violation and direct abuse" subdimension ($r = -0.267$, $p < 0.001$) (Table 3).

Logistic regression analysis was performed to examine the effect of patients' GDS-SF scores and ADL scores on H-SEAST outcomes. (Table 4), (Table 5) Each 1-point increase in GDS-SF score increased the likelihood of elder abuse by approximately 1,3 times (OR = 1.373; $p < 0.001$). It was determined that higher ADL scores reduced the risk of elder abuse by 0.3 times (OR = 0.305; $p = 0.02$).

DISCUSSION AND CONCLUSION

Aging is defined as a period that gains physiological, psychological, social, and sociological dimensions chronologically as age (Beğen & Yavuzer, 2012). Demographic changes are emerging, and the proportion of the elderly population is gradually increasing all over the world due to the decline in fertility rates, the extension of average life expectancy, advancements in the fields of medicine and science, and the increase in treatment (Kinsella & He, 2009). It is known that the rates of individuals being exposed to abuse also increase with aging. In this study, 150 elderly individuals aged 65 and over in the province of Isparta were evaluated in terms of abuse risk, and the factors that could affect the existing risk were revealed.

It was determined that 17.3% of the elderly individuals participating in our study had a H-SEAST score of 3 or above, indicating a risk of abuse. In a meta-analysis conducted by Yon et al. in 2017, which examined 52 studies from 28 countries selected from different regions, the global prevalence of elder abuse was found to be 15.7%, while it was found to be 10% in another meta-analysis published by Ho et al. (Ho, Wong, Chiu, & Ho, 2017; Yon et al., 2017). The risk of abuse detected in a study conducted with individuals aged 60 and over presenting to the outpatient clinic of a tertiary hospital in Sri Lanka was 38.5% (Edirisinghe, Paranitharn, Perera, & Williams, 2014). In studies conducted in Turkey, the risk of abuse was found to be 23.2% and 28.3% (Baştuğ, 2020; Seyitoğlu & Güneş, 2019).

No significant relationship was observed between the ages of the individuals participating in our study and the risk of abuse. In recent studies regarding elder abuse risk conducted in primary care settings in Turkey, studies demonstrating no relationship between age and abuse risk are predominant (Baştuğ, 2020; Kissal & Beşer, 2009; Seyitoğlu & Güneş, 2019). However, when the literature is examined, there are also studies indicating that the risk of abuse increases with advancing age (Oh, Kim, Martins, & Kim, 2006; Saikia, ahanta, Mahanta, Deka, & Kakati, 2015).

Table 2. H-SEAST Subdomains, Sociodemographic Characteristics, and Elder Abuse Risk

Sociodemographic Characteristics	Vulnerable Elder	p	Direct Abuse	p	Potential Abuse	p	Total Score	P
Age								
65-75 years	0.57 ± 0.58	0.189	0.29 ± 0.40	0.253	0.33 ± 0.71	0.421	1.19 ± 1.13	0.089
75-85 years	0.68 ± 0.74		0.20 ± 0.51		0.59 ± 1.13		1.48 ± 1.65	
≥85 years	0		0		0		0	
Gender								
Male	0.47 ± 0.60	0.013*	0.24 ± 0.46	0.782	0.44 ± 0.84	0.240	1.15 ± 1.24	0.326
Female	0.72 ± 0.65		0.28 ± 0.53		0.36 ± 0.86		1.36 ± 1.37	
Marital status								
Married								
Single	0.52 ± 0.60	0.020*	0.29 ± 0.49	0.084	0.33 ± 0.77	0.132	1.14 ± 1.19	0.123
	1.63 ± 1.59		0.17 ± 0.51		0.63 ± 1.06		1.63 ± 1.59	
Education								
Illiterate	0.71 ± 0.76	0.153	0.29 ± 0.58	0.408	0.35 ± 0.85	0.770	1.35 ± 1.41	0.719
Primary school	0.61 ± 0.61		0.23 ± 0.45		0.45 ± 0.92		1.29 ± 1.35	
Secondary school	0.22 ± 0.44		0.56 ± 0.73		0.33 ± 0.50		1.11 ± 0.93	
University and higher	0.36 ± 0.51		0.18 ± 0.41		0.18 ± 0.41		0.73 ± 0.64	
Income Level								
Less than expenses	0.17 ± 0.41	0.221	0.17 ± 0.41	0.138	0.83 ± 1.17	0.028*	1.17 ± 1.33	0.259
About equal	0.60 ± 0.62		0.23 ± 0.48		0.42 ± 0.58		1.14 ± 1.19	
More than expenses	0.65 ± 0.75		0.42 ± 0.58		0.69 ± 1.0		1.77 ± 1.68	
Social Security								
Yes	0.58 ± 0.63	0.234	0.24 ± 0.47	0.008*	0.41 ± 0.86	0.270	1.23 ± 1.30	0.166
No	1.00 ± 0.82		1.00 ± 0.82		0 ± 0		2.00 ± 1.41	
Chronic Disease								
Yes	0.60 ± 0.64	0.746	0.26 ± 0.51	0.614	0.44 ± 0.90	0.289	1.30 ± 1.37	0.776
No	0.56 ± 0.65		0.28 ± 0.46		0.20 ± 0.0		1.04 ± 0.89	
Residence								
In own home	0.60 ± 0.64	0.268	0.25 ± 0.48	0.745	0.39 ± 0.83	0.777	1.25 ± 1.28	0.726
Relative's home	0.25 ± 0.50		0.50 ± 1.00		0.75 ± 1.50		1.50 ± 2.38	
Living Situation								
Alone	1.00±0.74		0.17±0.49		0.61±1.12		1.78±1.70	
With spouse	0.55±0.62	0.019*	0.28±0.50		0.35±0.74		1.18±1.21	0.443
With spouse and other family members	0.44±0.51		0.39±0.50	0.144	0.28±0.96	0.489	1.11±1.13	
With other family members	0.40±0.51		0.13±0.52		0.53±0.92		1.07±1.34	
Caregiver presence								
Yes	0.50 ± 0.62	0.508	0.33 ± 0.69	0.925	0.28 ± 0.75	0.467	1.11 ± 1.37	0.514
No	0.61 ± 0.64		0.25 ± 0.47		0.42 ± 0.87		1.27 ± 1.30	
Identity of caregiver								
Spouse	0.67±0.58		0.33±0.58		0±0		1.00±1.00	
Daughter	0.50±0.76	0.564	0.50±0.93	0.904	0.50±1.07	0.584	1.50±1.93	
Son	0.33±0.58		0.33±0.58		0±0		0.67±0.58	0.954
Daughter-in-law	0±0		0±0		0.50±0.71		0.50±0.71	
Caregiver	1.00		0±0		0±0		1.00	

Hwalek-Sengstock Elder Abuse Screening Test (H-SEAST)

Kruskal-Wallis H test

Mann-Whitney U test

Although no statistically significant relationship was determined between elder abuse and gender in our study, a significant relationship was found regarding the "characteristics of the vulnerable elderly" sub-dimension among females. While there are studies in the literature supporting our findings that demonstrate no relationship between abuse risk and gender (Seyitoğlu & Güneş, 2019; Yon et al., Bozdemir, 2017) there are also studies indicating that the risk of abuse is higher in women and identifying female gender as a risk factor (Oh et al., 2006; Saikia et al., 2015). This discrepancy can be explained by factors such as women having a longer average life expectancy, living alone, possessing lower education levels, and being more economically dependent compared to men.

Although no statistically significant relationship was determined between elder abuse and the marital status of

individuals in our study, a significant relationship was found regarding the "characteristics of the vulnerable elderly" sub-dimension among single participants. The literature reveals that single individuals (never married, divorced, widowed) are found to be at higher risk of abuse, and living alone or being widowed/divorced are cited as risk factors in some studies (X. Dong, 2005; Edirisinghe et al., 2014; Ergin et al., 2012; Yeşil, Taşçı, & Öztunç, 2016). Although rare, there are also studies similar to ours where no significant relationship was detected between marital status and abuse risk (Bozdemir, 2017.). Although not found to be statistically significant in our study, the mean score of the abuse screening test was higher in single individuals compared to married ones. The risk of abuse may appear higher in single individuals due to rising mortality rates with increasing age, the increased prevalence of being single and living alone, and the elderly becoming more vulnerable.

No significant relationship was detected between the educational status of the individuals participating in our study and the risk of elder abuse. While there are studies consistent with our findings where no significant relationship was detected between education level and abuse risk, our findings contradict the majority of studies in the literature. In many studies conducted on this subject, it is demonstrated that having a low level of education increases the risk of abuse (X. Dong, Simon, & Gorbien, 2007; Wu et al., 2012). Studies exist showing that the risk of abuse increases in illiterate elderly individuals (Aslan, 2012; Keskinoglu et al., 2007). A low level of education is considered a risk factor for exposure to abuse due to reasons such as social dependence stemming from educational insufficiency, elderly individuals not knowing the ways to seek help, and the decrease in the ability to express oneself comfortably as the education level decreases.

Although no statistically significant association was found

between overall income level and elder abuse risk in our study, a statistically significant increase was observed in the “potentially abusive situations” subdimension among individuals whose income was lower than their expenses compared to those whose income was equal to their expenses. When studies on elder abuse are examined, poverty has been shown to increase the risk of abuse and to contribute to a higher incidence of crimes committed against older adults. (Daniş, 2009; X.-Q. Dong & Simon, 2008; X. Dong et al., 2007). It has been reported that economic hardship among individuals with low income may lead to deterioration in intra-family relationships, and that older adults are disproportionately and adversely affected by these conditions (Kalaycı & Özkul, 2018). In our study, the significant difference observed in the “potentially abusive situations” subdimension suggests that abuse may emerge over time among individuals with lower income levels. Although no statistically significant association was identified between social security status and overall elder abuse risk, participants with social security had significantly lower mean scores in the “violation of

Table 3. Relationship Between Abuse, Depression, and Dependency Levels in Activities of Daily Living

		H-SEAST)	GDS-SF	ADL	IADL	Vulnerable Elder	Direct Abuse	Potential Abuse
H-SEAST)	r	1	0,339	-0,266	-0,070	0,703	0,465	0,655
	p		<0,001*	0,001*	0,392	<0,001**	<0,001**	<0,001**
GDS-SF	r		1	-0,233	-0,308	0,339	0,365	0,170
	p			0,004*	<0,001*	<0,001*	<0,001*	0,038*
ADL	r			1	0,146	-0,266	-0,267	-0,045
	p				0,074	0,001*	0,001*	0,581
IADL	r				1	-0,070	-0,029	-0,108
	p					0,932	0,727	0,190
Vulnerable Elder	r					1	-0,021	0,206
	p						0,798	0,011**
Direct Abuse	r						1	0,104
	p							204
Potential Abuse	r							1
	p							

Hwalek–Sengstock Elder Abuse Screening Test (H-SEAST)

Geriatric Depression Scale – Short Form (GDS-SF)

Katz Index of Activities of Daily Living (ADL)

Lawton & Brody Instrumental Activities of Daily Living Scale (IADL)

Spearman's rho correlation test

*: $p < 0.05$

personal rights and direct abuse” subdimension compared to those without social security.

In a study conducted with elderly individuals presenting to

Table 4. Logistic Regression Model Between H-SEAST and GDS-SF

	B	SH	Wald	p	Exp(B)
GDS-SF	0.317	0.093	11.62	0.001*	1.373
Constant	-4.205	0.716	34.47	<0.001*	0.015

*, $p < 0.05$

Binary logistic regression

Geriatric Depression Scale – Short Form (GDS-SF)

primary care in Edirne, the risk of abuse was found to be significantly higher in individuals holding a Green Card and those without social security (Bozdemir, 2017.). In another study, the lack of social security was found to be associated with psychological abuse (Ergin et al., 2012). In a review conducted in Turkey examining the loneliness and poverty status of the elderly population and social service practices, it is emphasized that low-income elderly individuals who lack financial security and fall outside the scope of social security encounter care problems more frequently, and their families perceive caring for such elderly individuals as a burden (Danış, 2009). Possessing social security is an important factor for elderly individuals in terms of reducing the risk of abuse.

No statistically significant relationship was detected between the presence of chronic disease and regular medication use and the risk of abuse in some studies conducted and in our study (Bozdemir, 2017.; Baştuğ, 2020; Keskinoglu et al., 2007). There are also studies demonstrating that abuse increases in cases where the elderly individual has a chronic disease (X. Dong, 2005; Wu et al., 2012). The fact that the presence of chronic disease and regular medication use did not affect abuse in our study is attributed to the vast majority of patients presenting to primary care being functionally independent individuals and their chronic disease conditions not being at a level requiring assistance.

No statistically significant result was found regarding the relationship between the participants' place of residence and the people they live with, and the risk of abuse. It was determined that only the "characteristics of the vulnerable elderly" sub-dimension was significantly higher among those living alone. When the studies conducted on this subject are examined, studies indicating that the risk of abuse is high in elderly individuals living alone are predominant (Danış, 2009; X. Dong et al., 2007; Oh et al., 2006; Seyitoğlu & Güneş, 2019; Wu et al., 2012). In our study, the sub-dimension questioning the vulnerable characteristics of elderly individuals increased significantly with living alone. Living alone despite the presence of family members may cause the elderly individual to become isolated from society, feel excluded, and fall into a vulnerable state. This situation can also be evaluated as a form of neglect or emotional abuse.

Similar to the study by Çelik et al., no statistically significant relationship was detected in our research between the presence or absence of a caregiver and the risk of abuse. However, the risk of abuse was found to be significantly lower in cases where the caregiver of the elderly individual was the spouse, and statistically significantly higher in cases where it was the daughter (Seyitoğlu & Güneş, 2019). When the literature is examined, various risk factors related to the

caregiver become prominent. Factors such as alcohol and substance use, possessing tense and aggressive attitudes, the presence of mental illness, and having personality problems in the caregiver are cited among the risk factors for elder abuse (Gülen et al., 2013; Lachs & Pillemer, 2004; Pérez-Rojo, Izal, Montorio, & Penhale, 2009; Wu et al., 2012).

In our study, a weak positive significant relationship was detected between the participants' GDS-SF scores and H-SEAST scores. According to the logistic regression analysis, the presence of depression in elderly individuals increases the risk of abuse by approximately 1.3 times. When the existing studies are examined, a positive significant relationship was found between abuse risk and depression in a manner supporting our study, and it has been shown that depression is independently associated with elder abuse and (2017.; X.-Q. Dong & Simon, 2008; Seyitoğlu & Güneş, 2019; Şen & Meriç, 2020; Wu et al., 2012). It can be considered that depression renders the individual vulnerable to abuse and neglect due to reasons such as causing a decrease in functionality in the elderly, leading to social exclusion, resulting in a reduction in productivity, economic losses, and causing dependence on the environment. In our study, it was determined that the frequency of depression increased with female gender, being single, not working, low education level, lack of social security, having a chronic disease, regular medication use, living alone, and being dependent in activities of daily living and instrumental activities of daily living.

In our study, a weak negative statistically significant relationship was found between the participants' H-SEAST scale scores and the KGYA scale. As the score obtained on the KGYA scale increases, the elderly individual's level of dependency in basic activities of daily living decreases. As the level of dependency in basic activities of daily living increases in elderly individuals, the risk of elder abuse increases. According to the logistic regression analysis examined between the KGYA and H-SEAST scales, elderly individuals with low dependency according to KGYA are at approximately 0.3 times lower risk in terms of abuse risk compared to elderly individuals with high dependency. When Instrumental ADLs were examined, no significant relationship was detected between the H-SEAST and LBEGYA scales. When studies regarding elder abuse are examined, an increase in the dependency level in ADL is considered among the risk factors for abuse (Akdemir, 2008; Fadiloğlu, 2012; Gülen et al., 2013).

Table 5. Logistic Regression Model Between H-SEAST and ADL

	B	SH	Wald	p	Exp(B)
ADL	-1.187	0.521	5.186	0.023*	0.305
Constant	3.999	2.816	2.016	0.156	54.543

*, $p < 0.05$

Binary logistic regression

Katz Index of Activities of Daily Living (ADL)

While there are studies stating that the abuse rate of independent individuals is high, there are also studies reporting no significant relationship between the dependency level in ADL and instrumental ADL and abuse (Alexa et al., 2020; Sezer, Ataş, & Dağdeviren, 2021). However, studies showing that the risk of elder abuse increases with the increase in dependency level in ADL are in the (Amstadter et al., 2011; X. Dong, Simon, & Evans, 2014; İlhan, Aycan, İlhan, & Aksakal, 2006; Post et al., 2010). Restriction in activities of daily living and increased levels of dependency can be considered as triggering factors for abuse and neglect.

In conclusion, Elder abuse is a significant public health issue observed across sociocultural groups. Depression and reduced independence in activities of daily living were independently associated with increased abuse risk in this study.

Given the potential bidirectional relationship between mental health, functional dependence, and abuse risk, routine screening for depression and elder abuse in primary care settings is essential. Family physicians are strategically positioned to identify high-risk individuals, particularly those who are functionally dependent or socially isolated. Integrating structured screening tools into routine geriatric assessments and strengthening multidisciplinary geriatric services may contribute substantially to prevention efforts.

LIMITATIONS

This study has several strengths, including the simultaneous evaluation of psychosocial (depression), functional (ADL/IADL), and sociodemographic variables using validated instruments in a primary care population. However, some limitations should be noted. Due to the cross-sectional design, causal relationships cannot be established. The inclusion of only community-dwelling older adults attending Family Health Centers, along with the exclusion of cognitively impaired individuals, may have limited generalizability and led to underestimation of abuse prevalence. Additionally, reliance on self-reported measures may have introduced reporting bias, and subgroup analyses may have been underpowered despite an overall adequate sample size.

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