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Evaluation of elder abuse in elderly patients presenting to an emergency department

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Abstract

With the increase in the elderly population worldwide, elder abuse and neglect cases are not increasing gradually. Elder abuse is not only physical abuse but also sexual, psychological, and economic. This study aimed to evaluate the findings of elderly individuals admitted to an emergency department for abuse and neglect. This study was performed on patients aged 65 years and older who were admitted to the emergency department of a tertiary care hospital. Between January 1, 2019 and January 4, 2019, a presurvey and the Hwalek-Sengstock Elder Abuse Screening Test (H-S/EAST) were administered. Among the elderly included in this study, 48.8% (n=240) were female and 51.2% (n=252) were male. The total scores of the general test were found to be statistically significantly higher ($p<0.05$) in the elderly who were living alone, widowed, illiterate, unemployed, did not have children, came to the emergency department with trauma findings, had a history of more than one previous trauma, or who felt that they had recently been subjected to violence or physically, psychologically, or economically abused. It should be kept in mind that elderly patients admitted to an emergency department may suffer from elder abuse and neglect. Providing the right communication and appropriate environment to detect elder abuse is important for diagnosis, treatment, and rehabilitation.

Keywords: Elder abuse, emergency department, elder mistreatment, elder neglect

Introduction

Although elder abuse and neglect have been discussed in the literature since the 1970s, with the term "granny battering," there is no consensus on its definition. According to the Toronto Declaration of the International Organization for the Prevention of Elder Abuse and the World Health Organization (WHO), elder abuse is "single or repeated inappropriate behaviors that harm or stress the elderly in any relationship where there is an expectation of trust" [1-3]. When we look at the components of elder abuse, a. there is a single or more than one act or omission, b. it occurs within a relationship of trust, and c. it causes distress or harm to an elderly person [4,5].

Studies on elder abuse may focus on the characteristics of abused elderly, perpetrators' characteristics, the social environment conditions in which the elderly live, and family characteristics [6]. In studies on elder abuse, it has been emphasized that there are higher mortality rates in the elderly who have been abused [7]. Considering that cultural conditions, traditions, beliefs,

migration, etc. affect this violence against the elderly, it is understood that elder abuse is an area where multidisciplinary studies are needed.

This study aimed to evaluate the findings of abuse and neglect in elderly individuals admitted to an emergency department and to draw attention to situations for the detection of elder abuse and neglect.

Material and Methods

Patients aged 65 years and older admitted to the emergency department of a tertiary state hospital between January 1, 2019 and January 4, 2019 were included in this study. The study was initiated after the approval of the Local Ethics Committee, with decision number 2018/109. After consent was obtained, a preliminary questionnaire and the Hwalek-Sengstock Elder Abuse Screening Test (H-S/EAST) were administered face-to-face by health personnel. Cases with incomplete study forms and hospital data and patients who themselves or their relatives did not give consent were excluded from this study. The presurvey

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questions included sociodemographic characteristics and questions describing the health status of the elderly.

The elder abuse screening test is a scale consisting of three conceptual categories (factors): 1) a violation of personal rights, and direct abuse, 2) A vulnerable older person's characteristics, and 3) identification of potential abuse. The highest score that can be obtained from the test is 15, and the lowest score is 0. A higher score indicates an increased risk of abuse. Hwalek and Sengstock (H-S) stated that scores of 3 or above on the test should be interpreted as abuse [8-11].

A statistical data analysis was performed using a statistical data program. In addition to descriptive statistics, a Chi-squared test was used to classify categorical data. An independent t-test was used to compare paired groups. In the comparison of two or more groups, a one-way analysis of variance was applied when the variances were homogeneous, and the Kruskal–Wallis test was applied when the variances were not homogeneous. Turkey's test in variance analysis and Tamhane's T2 test in the Kruskal-Wallis test were used as post hoc tests. Statistical significance was taken as $p<0.05$.

Results

Among the elderly who presented to the emergency department for various reasons, 48.8% (n=240) were female and 51.2% (n=252) were male. The patients' mean age was 73.48 ± 7.43 years; the youngest was 65 years old, and the oldest was 98 years old. The mean height was 166.43 ± 8.74 , the mean weight was 73.28 ± 14.19 , and the mean body mass index was 26.44 ± 4.79 . A total of 70.3% (n=346) were married, 25.8% (n=127) were widowed, and 3.9% (n=19) were single. When we looked at their educational status, 39.8% (n=196) were illiterate. Of the

patients, 46.7% (n=230) did not have an occupation, and 31.5% (n=155) stated that they were retired. In the group that stated they were currently employed (21.8%, n=107), the most common occupations were self-employment (6.9%), followed by farming (5.5%) and fishing (2.8%). Of the patients, 96.1% (n=478) had children.

Of the elderly individuals, 84.1% (n=414) lived in their own home, 9.8% (n=48) lived in their son's home, 4.7% (n=23) lived in a nursing home, 1.4% in the other group, three people lived in nursing homes, two lived in rented accommodation, one lived with his/her sibling, and one lived with his/her parents. Of the cases, 23.6% (n=116) had caregivers. The elderly stated that 10.2% (n=50) were cared for by their son, 9.1% (n=45) by their daughter, 2.4% (n=12) by a private caregiver, and 1.4% (n=7) by their daughter-in-law. The remaining three cases in the other group were cared for by their neighbors, mothers, or siblings.

The reason for presenting to the emergency department was trauma in 9.8% (n=48) of the cases and nontrauma in 90.2% (n=444). Of the patients, 5.3% (n=26) were admitted due to falls, 2.4% (n=12) due to falls on stairs, 1.4% (n=7) due to nonvehicle traffic accidents, one fell from a tree, and two patients fell from a roof. Of the patients, 14.8% (n=73) described more than one traumatic event in their history. Of the patients, 87% (n=428) reported regular medication use, 3% (n=15) stated that they had been recently subjected to violence, and 13.4% (n=66) reported recent physical, psychological, or economic abuse.

The results of the H-S/EAST were found to be statistically significant in the presence of widowhood, illiteracy, having a caregiver, identifying more than one traumatic event in his or her history, expressing recent violence, and feeling physically, psychologically, or economically abused recently ($p<0.05$, Table 1).

Table 1. Comparison of the preliminary survey results of cases with and without elder abuse detected

		Patients with detected elder abuse*		Patients with no detected elder abuse**		X ²	P value
		n	%	n	%		
Marital status	Married	110	22.35	236	47.96	7.95	0.01
	Widow	58	11.78	69	14.02		
	Single	6	1.21	13	2.64		
Educational status	Illiterate	82	16.66	114	23.17	14.73	0.01
	Lettered	24	4.87	89	18.08		
	Primary school graduate	42	8.53	69	14.02		
	Secondary school graduate	17	3.45	25	5.08		
	High school graduate	7	1.42	15	3.04		
	Graduated from a university	2	0.40	6	1.21		
Caregiver status	Having caregiver	50	10.16	66	13.41	3.97	0.04
	No careviger	124	25.20	252	51.21		
Status of multiple trauma cases in history	Having in this situation	45	9.14	28	5.69	25.89	<0.01
	No people in this situation	129	26.21	290	58.94		
Status of violence recently	Having in this situation	11	2.23	4	0.81	9.75	<0.01
	No people in this situation	163	33.13	314	63.82		
Status of feeling physically, psychologically or economically abused recently	Having in this situation	51	10.36	15	3.04	58.56	<0.01
	No people in this situation	123	25.00	303	61.58		

* Patients diagnosed with elder abuse according to the results of the H-S/EAST, ** Patients in whom elder abuse was not detected according to the H-S/EAST

In the H-S/EAST evaluation according to the educational statuses of the cases, statistically significant differences were found between groups in the subcategories of violation of personal rights and direct abuse and vulnerable elderly characteristics and total mean scores ($p=0.01$, $p=0.01$, and $p<0.01$, respectively).

The Tamhane's T2 test for all three tests showed that the mean scores of illiterates were statistically significantly higher than

the mean scores of literates ($p=0.01$, $p=0.01$, and $p<0.01$, respectively) (Table 2). According to the subjects' employment statuses, a statistically significant difference was found between the mean scores in the subcategories of violation of personal rights and direct abuse ($p<0.01$). The Tamhane's T2 test showed that the mean scores of the unemployed were statistically significantly higher than the mean scores of the employed ($p<0.01$) (Table 2).

Table 2. According to the preliminary survey results of the cases, the distribution of the total score and subdimensions of the Hwalek-Sengstock Elder Abuse Screening Test

			H-S Direct abuse score		H-S Vulnerability score		H-S Potentially score		H-S Total score	
			n	Mean±SD	P value	Mean±SD	P value	Mean±SD	P value	Mean±SD
Gender	Women	240	1.24±1.02	0.41	0.52±0.84	0.58	0.69±1.06	0.26	2.43±2.20	0.99
	Men	252	1.17±1.02		0.47±0.95		0.80±1.20		2.43±2.46	
Age	65-74 age	306	1.21±1.00	0.96	0.47±0.86	0.17	0.66±1.06	0.10	2.34±2.23	0.10
	75-84 age	130	1.30±1.07		0.60±1.02		0.91±1.30		2.79±2.52	
	85 age and up	56	0.94±1.01		0.35±0.79		0.83±1.09		2.12±2.39	
BMI	BMI≤18.49	11	1.00±1.18	0.62	1.00±1.34	0.17	1.09±1.22	0.43	3.09±2.66	0.45
	18.50<BMI≤24.99	177	1.16±0.99		0.47±0.87		0.68±1.07		2.30±2.19	
	BMI≥25	304	1.23±1.04		0.49±0.89		0.77±1.17		2.49±2.40	
Marital Status	Married	346	1.04±0.94	<0.01	0.43±0.82	0.78	0.64±1.00	0.02	2.09±1.99	0.01
	Single	19	1.15±1.06		0.73±1.24		1.10±1.55		2.89±3.46	
	Widow	127	1.66±1.09		0.64±1.01		1.00±1.34		3.30±2.75	
Educational status	Illiterate	196	1.40±1.08	0.01	0.63±1.00	0.01	0.81±1.18	0.06	2.83±2.56	<0.01
	Lettered	113	1.01±0.87		0.30±0.76		0.50±0.94		1.77±1.89	
	Primary school graduate	111	1.13±1.04		0.51±0.85		0.90±1.21		2.54±2.29	
	Secondary school graduate	42	1.11±0.96		0.38±0.79		0.85±1.31		2.35±2.10	
	High school graduate	22	1.09±0.97		0.54±1.01		0.59±0.85		2.22±2.36	
	Graduated from a university	8	0.75±1.16		0.25±0.70		0.50±0.75		1.50±2.07	
Occupational status	Unemployed	230	1.32±1.01	<0.01	0.56±0.91	0.01	0.73±1.12	0.71	2.60±2.27	0.13
	Retired	155	1.20±1.04		0.56±1.01		0.81±1.23		2.55±2.61	
	Employee	107	0.95±1.00		0.25±0.64		0.70±1.02		1.89±1.94	
Child status	Having children	473	1.19±1.02	0.25	0.49±0.90	0.90	0.74±1.11	0.33	2.41±2.31	0.38
	No children	19	1.47±1.12		0.47±0.90		1.00±1.56		2.89±2.78	
Living place	Owned by home	414	1.15±1.00	0.11	0.43±0.84	<0.01	0.71±1.10	0.10	2.28±2.21	0.03
	Son's house	48	1.45±1.12		0.87±1.24		1.10±1.43		3.43±3.03	
	Daughter's house	23	1.47±1.03		0.86±1.01		0.60±0.89		2.95±2.28	
	Others	7	1.57±1.27		0.28±0.48		1.14±1.34		3.00±2.51	
Caregiver status	Having caregiver	116	1.43±1.03	<0.01	0.74±1.03	<0.01	0.81±1.22	0.48	2.97±2.48	<0.01
	No careviger	376	1.13±1.01		0.42±0.84		0.73±1.11		2.27±2.26	
Reason for applying to the emergency department	Traumatic	48	1.47±1.12	0.05	0.72±1.14	0.06	0.97±1.34	0.15	3.18±3.01	<0.01
	No trauma	444	1.17±1.01		0.47±0.87		0.72±1.11		2.35±2.24	
Status of multiple trauma cases in history	Having in this situation	73	1.63±1.12	<0.01	1.02±1.34	<0.01	1.60±1.56	<0.01	4.24±3.08	<0.01
	No people in this situation	419	1.13±0.99		0.40±0.76		0.60±0.97		2.12±2.02	
Status of violence recently	Having in this situation	15	2.26±1.03	<0.01	1.73±1.38	<0.01	2.20±1.89	<0.01	6.20±3.09	<0.01
	No people in this situation	477	1.17±1.01		0.45±0.85		0.70±1.07		2.31±2.21	
Status of feeling physically, psychologically or economically abused recently	Having in this situation	66	1.98±1.14	<0.01	1.28±1.29	<0.01	1.90±1.56	<0.01	5.13±3.08	<0.01
	No people in this situation	426	1.08±0.95		0.37±0.75		0.57±0.94		2.01±1.88	
H-S: Hwalek-Sengstock. SD: standart deviation										

H-S: Hwalek-Sengstock, SD: standart deviation

A statistically significant difference was observed between the groups in the potential abuse subcategory ($p=0.01$). In the post hoc test, as shown in Table 3, there was a statistically significant difference between the mean scores of the employed and both the unemployed and the retired.

Table 3. The comparison of cases in which elder abuse cases were detected according to their occupational status

Occupation status	Mean difference	S.E.	p value	95% confidence interval	
				Lower bound	Upper bound
Employee/unemployed	-0.312*	0.08	<0.01	-0.52	-0.10
Employee/retired	-0.315*	0.10	<0.01	-0.56	-0.06

S.E.: standart error

In the statistical evaluation made in terms of the places where the subjects lived, it was seen that the elderly living in their own homes or other places had statistically significantly lower scores in the vulnerable elderly characteristics subgroup of the test compared to the elderly living with their sons or daughters ($p<0.01$). Also, when the total score of the test was analyzed, it was observed that individuals living with their sons had statistically significantly higher scores than all other groups ($p<0.01$).

Elderly people with caregivers had statistically significantly higher scores in all subtest groups except the potential abuse subtest group and in the total score compared to elderly people without caregivers ($p<0.01$). The elderly who had more than one trauma in their past, who reported recent exposure to violence, and who felt physically, economically, and psychologically abused scored statistically significantly higher in all subgroups and in the total score ($p<0.01$). However, a statistically significant increase was observed only in the total scores of patients whose reason for presentation to the emergency department was trauma compared to nontraumatized patients ($p<0.01$).

Discussion

Looking at the projection of Türkiye's elderly population, it is predicted that it will reach 27.7% by 2075 [11]. The prevalence of elder abuse shows a wide variation since there is no consensus on the definition of elder abuse, its subtypes, and methodological cultural differences [12]. In meta-analysis studies, elder abuse was reported to be between 14.3% and 15.7% in the general population [5,14]. In a study from the Netherlands in which one-year abuse rates were investigated, it was found that 5.6% of the elderly were exposed to abuse [14,15]. In another study conducted among elderly patients in Iran, the rate of elder abuse was reported to be 29.4% [16]. Elder abuse has been reported to range between 6.3-6.6% in Korea [12]. In a 2017 study conducted in an emergency department in the USA, the rate of physical abuse was reported to be 32.2% [17].

In a screening study conducted in a neighborhood with a dense elderly population in Türkiye's Balıkesir province, the abuse rate was found to be 19.5% [18]. A study by Keskinoglu et al. on physical and financial abuse and neglect involving 204 individuals aged 65 years and over in Izmir province found that 1.5% of the elderly encountered physical abuse, 2.5% encountered

financial abuse, 3.5% had definite neglect findings, and 28.9% had possible neglect findings [19]. In another study conducted in Türkiye's Kars province, the test results showed that 36% of the elderly people who participated in the study were abused [20]. As a result, studies have reported elder abuse rates between 13.6% and 32.5% [21-24]. In our study, 35.36% ($n=174$) of elder abuse cases were available according to the abuse screening test results. The fact that this study was conducted in the emergency departments where a first treatment attempt was made may be a reason for this high rate, but it should also be taken into consideration that this study was conducted in a province with a high elderly population. Stevens et al. reported that 7% of patients examined in an emergency department had a history of physical or psychological abuse in the previous year [25]. In our study, 13.4% of the patients stated that they had recently been physically, psychologically, or economically abused.

In this current study, the overall mean score on the H-S/EAST was 2.67. This score was reported as 2.46 in the study of Turkish adaptation of the test and 1.84 in the study of Sahin and Erkal [8,26]. Like our study, some studies have shown that age and gender do not have a statistically significant effect on the results of the H-S/EAST. However, studies showing that the female gender is a risk factor for elder abuse are also available in the literature [27].

Studies have shown that individuals who abuse the elderly are mostly spouses, adult children, and close relatives [11,28,29]. In a 2006 study conducted in Korea, it was reported that 75–80% of the elderly were abused by their children [30]. Dastan et al. stated that members of nuclear families and broken families were more exposed to abuse [20].

Ceylan et al. reported that the possible abuse subdimension scores of the test were statistically significantly higher in married couples [31]. In this current study, those who were widowed had statistically significantly higher total scores. This is because these people mostly lived with their children. In our study, it is noteworthy that those who lived with their sons or daughters had higher mean total scores. In studies conducted on this subject in Türkiye, it has been reported that abuse of the elderly is frequently perpetrated by spouses, children, and in-laws. Lok drew attention to the fact that the gradual increase in the elderly population and the widespread use of the nuclear family model push individuals

into relative loneliness in old age and that the loss of social status in parallel with old age worsens this situation [6].

Limitations

A limitation of our study is that although the economic, psychological, and physical aspects of elder abuse were partially evaluated, sexual abuse could not be adequately evaluated. It may be appropriate to carry out studies under conditions in which detailed assessments can be made. Another limitation of this study is that no assessment was made in terms of psychiatric disorders that may occur as a result of abuse.

Conclusion

This study's results revealed that exposure to abuse was higher among the elderly living alone and widowed, the illiterate, the unemployed, the elderly without children, those presenting to the emergency department with signs of trauma, those with a history of previous traumas, and those who felt that they had recently been subjected to violence or physically, psychologically, or economically abused. To detect elder abuse in emergency services, for accurate diagnosis, treatment, and rehabilitation, it is critical to conduct interviews in healthy environments and use correct communication methods that can evaluate the elderly and minimize a patient's changes in consciousness.

Conflict of Interests

The authors declare that there is no conflict of interest in the study.

Financial Disclosure

The authors declare that they have received no financial support for the study.

Ethical Approval

The study was initiated after the approval of the Ordu University Faculty of Medicine Clinical Research Ethics Committee, with decision number 2018/109.

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