

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/362129193>

# An Examination of Conditions Exposing Older Adults to Economic Abuse: Logistic Regression Analysis

Article in *Journal of Applied Gerontology* · July 2022

DOI: 10.1177/07334648221116159

CITATIONS

0

READS

38

4 authors, including:



**Derya Ünlü**

Istanbul Sabahattin Zaim University

2 PUBLICATIONS 1 CITATION

SEE PROFILE



**Taner Artan**

Istanbul University-Cerrahpaşa

62 PUBLICATIONS 179 CITATIONS

SEE PROFILE




**Hatice Selin Irmak**

İstanbul University-Cerrahpaşa

25 PUBLICATIONS 53 CITATIONS

SEE PROFILE

# An Examination of Conditions Exposing Older Adults to Economic Abuse: Logistic Regression Analysis

Journal of Applied Gerontology  
2022, Vol. 0(0) 1–10  
© The Author(s) 2022  
Article reuse guidelines:  
[sagepub.com/journals-permissions](https://sagepub.com/journals-permissions)  
DOI: 10.1177/07334648221116159  
[journals.sagepub.com/home/jag](https://journals.sagepub.com/home/jag)  


Derya Ünlü<sup>1</sup>, Emel Yurtsever<sup>1</sup>, Taner Artan<sup>2</sup>, and Hatice Selin Irmak<sup>2,3</sup> 

## Abstract

The aim of this study was to determine factors affecting the economic abuse status of older adults. The study was conducted with 385 individuals aged 65 years and above, living in the Bahçelievler district of Istanbul. Data were collected using a Sociodemographic Form, and a Determination of Economic Abuse of Older Adults Form. Logistic regression analysis was applied to determine the factors affecting the economic abuse status of the older adults. The study participants comprised 51.4% males and 48.6% females with a mean age of  $70.44 \pm 6.73$  years. It was determined that 9.4% of the older adults were exposed to economic abuse. As a result of the logistic regression analysis, the factors found to affect the situations of exposure to economic abuse of the older adults were age, income status, number of children, exposure to emotional abuse, and exposure to physical abuse.

## Keywords

Older adults abuse, financial issues, social work

### *What this paper adds to existing literature?*

- It is the most comprehensive study on only the economic abuse of older adults in Turkey.
- Considering the economic abuse studies for older adults, it is the first community-based study conducted directly with older adults themselves.
- It is the first comprehensive study to use logistic regression analysis in the field of economic exploitation.

### *Applications of study findings*

- Research: It will lead to community-based and institution-based comparative studies on the economic abuse of older adults.
- Practice: It will contribute to the increase of the awareness of the professional staff about economic abuse during the social studies of older adults.
- Policy: Economic abuse often leaves no marks and is therefore taken less seriously by authorities and communities than physical and sexual abuse. Therefore, similar to child abuse and domestic violence, public awareness campaigns emphasizing the economic abuse of the older adults will be carried out and awareness will be raised to create a preventive and protective approach towards the protection of the older adults' assets.

## Introduction

Abuse of older adults, which has psychosocial dimensions, has become one of the most important topics that has been discussed in recent years. In almost all the countries of the world, abuse of older adults is a social problem (Yon et al., 2017). The concept of abuse of older adults was first described as “granny battering” by Baker and Burston in England in 1975 (Baker, 1975; Burston, 1977). In the

**Manuscript received:** October 29, 2021; **final revision received:** July 6, 2022; **accepted:** July 7, 2022.

<sup>1</sup>Department of Social Work, Istanbul Sabahattin Zaim University, Turkey

<sup>2</sup>Department of Social Work, Istanbul University-Cerrahpasa, Turkey

<sup>3</sup>Department of Gerontology, Istanbul University-Cerrahpasa, Turkey

### Corresponding Author:

Hatice Selin Irmak, Department of Gerontology, Istanbul University-Cerrahpasa, Zuhuratbaba Mahallesi Dr. Tevfik Sağlam Caddesi, No:25 Ruh ve Sinir Hastalıkları Hastanesi Bahçesi, Istanbul 34320, Turkey.  
Email: [haticeselin.irmak@iuc.edu.tr](mailto:haticeselin.irmak@iuc.edu.tr)

International Elderly Abuse Prevention and World Health Organization Toronto Declaration, abuse of older adults was defined as harming older adults in any relationship which needs to be safely established, behaving in a way that causes distress to older adults, a single or repeated incidents of this behavior, or behaving inappropriately towards older adults (World Health Organization, 2002).

Generally, abuse of older adults is defined as “any behavior that threatens or harms the health or well-being” of an older adult. Abuse of older adults can take different forms of physical, sexual, psychological, or economic abuse (Lai, 2011, p. 327). These can be perpetrated in isolation or can co-occur, a dynamic known as poly-victimization (Hamby et al., 2016).

Despite its prevalence and impact, financial abuse is one of the lesser studied forms of elder abuse (Acierno et al., 2020; Chan & Stum, 2021; Fraga Dominguez et al., 2021; Lichtenberg, 2016; Peterson et al., 2014). Nonetheless, available research indicates that there may be specific characteristics in its presentation and unique intervention challenges as a result (Burnett et al., 2020), suggesting the need to respond to and manage it differently than other elder abuse types.

In the scope of this study, situations in which older adults are exposed to economic abuse were considered. Economic abuse is defined as “the illegal or inappropriate use of money or other financial resources for one’s own outcomes” (Sayan & Durat, 2004, p. 99). Signs of economic abuse of older adults include a reduction in wealth for unknown reasons, irregular bank withdrawals, suspicious purchases on a credit card statement, the loss of valuable jewelry or other possessions, mental or medical diseases that cannot be treated, experiencing situations where expenses cannot be met for unknown reasons, and a disproportionate amount of income or assets spent on the care of the older adult (Anonymized for Review #1).

The person perpetrating economic abuse of the older adult may be any person in a position of authority, a child, spouse, relative, neighbor, friend, voluntary assistant, healthcare worker, domestic staff, or any other person with a duty in their environment (Akdemir et al., 2008, p. 71). The reasons for economic abuse may be that the perpetrator has insufficient income, wants to guarantee their own desires, a wish for control and power over the older adult, or they think that the older adult does not have the capability to manage their own affairs (Kalaycı et al., 2015, p. 24).

It is extremely difficult to determine the extent and level of economic abuse to which older adults are exposed. This remains hidden as economic abuse cases in particular are not identified and the vast majority of cases are not reported by older adults (Malks et al., 2002; Timmermann, 2009, p. 25). According to a 2017 WHO report, the number of reports related to abuse reflects only 1 in 24 cases.

When studies of abuse of older adults in Turkey are examined, they are generally seen to be theoretical studies that have considered all types of abuse together (Akdemir et al., 2008). Only one study could be found on the subject of economic abuse alone (Anonymized for Review #1).

Therefore, the aim of this study was to determine the factors affecting the conditions of exposure of older adults (community-dwelling) to economic abuse in Turkey.

## Materials and Methods

This study was designed as a descriptive study with a screening model with the aim of revealing the situations of exposure to economic abuse of older adults (community-dwelling). The screening model is a research approach that aims to describe a past or present situation (Karasar, 2009, p. 77).

### Population and Sampling

The study population was formed of individuals aged 65 years and over who were living in the Bahçelievler district of Istanbul. According to TÜİK (Turkish Institute of Statistics) data, the population in the district of Bahçelievler was 39,332 in 2018. The study sample comprised 385 individuals aged 65 years and over, with healthy mental capacity, not receiving any institutional care and who lived in the district of Bahçelievler in Istanbul. The reason for selecting the study sample from individuals living in the district of Bahçelievler was that this district has a cosmopolitan population in terms of the population structure of Turkey and Istanbul. Another reason was that from a socioeconomic perspective, middle and upper classes can be found together in the district of Bahçelievler. Finally, as Istanbul has experienced the most intense urbanization in Turkey, it was considered important to show the transition between traditional and modern values in the population. The sample number determined was representative of the population and can be generalized to all populations. The sample size was determined using a formula from probability sampling methods to give a 95% significance level and 0.05 error margin (Gürbüz & Şahin, 2015). Convenience sampling technique from non-probable sampling techniques was used in the selection of the sample. Convenience sampling is a non-random sampling method in which the sample to be selected from the main mass is determined by the judgment of the researcher.

### Data Collection Technique

Data were collected using a questionnaire between 15.11.2018 and 25.03.2019. The participants were contacted in places with a high density of older adults, such as cafes, public libraries, parks and gardens, and areas around mosques. Participation was on a voluntary basis. Taking into consideration the cultural perception of abuse of older adults, the participants were first informed that a study was being conducted in the field of geriatrics and they were invited to participate. After establishing a suitable environment for individual interviews with the older adults who volunteered

to participate in the study, detailed information was given about the aim of the study in the scope of a social services interview and interview techniques.

The data collection tool was the Determination of Economic Abuse of Older Adults Form, which was developed by the researchers from their own screening of literature and the views of three social services academicians who were specialists in the field of older adult abuse (Artan, 2016; Ünlü, 2019). Data were collected in face-to-face interviews with each subject lasting an average of 30 minutes.

The form used as the data collection tool comprised 34 questions, 14 of which were to determine sociodemographic characteristics and 20 were to evaluate situations of exposure to economic abuse of the older adults. These questions aimed to define economic abuse as specified in literature and at the same time in the context of values consistent with Turkish cultural structure (Artan, 2016; Ünlü, 2019). Therefore, questions were phrased such as “has anything belonging to you ever been taken without your permission?”, “have you ever been forced to sell any asset or property?”, and “has anybody close to you ever obtained a loan against your pension?” with the aim of determining economic abuse. At this point, even if it is not considered a problem culturally in many societies for the older adults to take out a loan or provide financial support for children or relatives, if it is done unwillingly or under force, it can be defined as economic abuse. In the scope of this study, the basic criteria of whether or not this situation was an element of economic abuse was to determine whether the older adult had acted “not of their own free will” or “was compelled to do so.”

### Analysis Technique

The aim of this study was to determine factors affecting the economic abuse status of older adults (community-dwelling). For this purpose, two-way logistic regression analysis was applied. It was aimed to establish a generally acceptable model with logistic regression analysis which could determine the relationship between independent and dependent variables which would have the best fit using the fewest variables. In the logistic regression analysis, it was aimed to estimate the probability of each of the values that could be taken of the dependent variables. In this study, gender, marital status, level of education, level of income, physical abuse status, and emotional abuse status were taken at the categorical level as factors which could have an effect on the economic abuse status, and age was in the model established as an independent variable at the interval level. The first level was accepted as the reference category for categorical variables in the analysis. A value of  $p < .05$  was accepted as statistically significant in the analyses.

In the logistic regression analysis, when the occurrence probability of an item was shown as  $P_i$ , and the non-occurrence probability as  $1-P_i$ , the logistic distribution function was defined as  $P_i = \frac{1}{1+e^{-z}}$ . When the logistic regression equation of  $Z = \beta_0 + \beta_1 X_1 + \dots + \beta_k X_k$  was used, the odds ratio (OR) was defined as  $OR = \frac{P_i}{1-P_i} = e^z = e^{\beta_0 + \beta_1 X_1 + \dots + \beta_k X_k}$ . The Exp ( $\beta$ ) value of each

parameter was taken as the OR, and this value defined how many times more or at what percentage more there was the probability with the effect of the  $X_k$  variable of the dependent variable.

### Ethical Approval

Approval for the study was granted by the Social and Human Sciences Ethics Committee of Istanbul University-Cerrahpasa (decision no.: 2018/06, dated: 11.10.2018). Verbal and written informed consent was provided by all the participants.

## Results

### Sociodemographic Characteristics of the Participants

The sociodemographic characteristics of the older adults are presented in this section. The numbers and percentages of the categorical variables are shown in Table 1.

As seen in Table 1, the 385 participants comprised 51.4% males and 48.6% females, with a mean age of  $70.44 \pm 6.73$  years (range, 65–105 years). In the evaluation of the level of education, 12.2% were illiterate, 9.4% were literate, 38.7% had been to primary school, 12.5% middle school,

**Table 1.** Distribution of the Sociodemographic Characteristics of the Older Adults in the Study.

Variables	N	%
Gender		
Female	187	48.6
Male	198	51.4
Education level		
Illiterate	47	12.2
Literate	36	9.4
Primary school	149	38.7
Middle school	48	12.5
High school	58	15.1
University graduate	47	12.2
Marital status		
Married	266	69.1
Widowed	91	23.6
Divorced	28	7.3
Income (per month)		
0–1500TL	153	39.7
1501–3000TL	152	39.5
3001TL+	77	20
No response	3	0.8
Number of children		
No children	24	6.2
1–2	132	34.3
3	105	27.3
4+	124	32.2
Age (years)	70.44 ± 6.73 (range: 65–105)	

Note. 1\$ = 5.19TL (Exchange Rate, 2019).

**Table 2.** Older Adults' Self-Reported Exposure to Various Types of Abuse.

Type of Abuse	Yes		No	
	N	%	N	%
Economic abuse	36	9.4	349	90.6
Emotional abuse	51	13.2	334	86.8
Physical abuse	12	3.1	373	96.9

15.1% high school, and 12.2% were university graduates. When the marital status of the older adult participants was examined, it was seen that 69.1% were married, 23.6% were widowed, and 7.3% were single or divorced.

### Abuse Status of the Older Adults Participants

As seen in Table 2, 9.4% of the participants reported that they had been exposed to economic abuse, 13.2% to emotional abuse and 3.1% to physical abuse.

Taking the traditional and cultural values of Turkey into account, it was preferred not to ask questions directly related to whether or not the participants had been exposed to any abuse as it was thought that this could be offensive and violate their personal rights. A certain number of questions were directed to the participants to determine each situation of abuse to which the older adults were exposed. According to the authors, a response of "yes" to at least three of these questions was evaluated as the older adult having been exposed to abuse. The reason why answering "yes" to more than half (3/4) of the total number of questions is counted as a criterion to show that they are exposed to economic abuse; more than half (3/4) of the total number of questions.

The situations of exposure of the older adults to economic abuse are shown in Table 3. Of the respondents, 17.4% ( $n=69$ ) stated that money, goods, or items of value such as jewelry had been taken without permission, and 13.6% ( $n=52$ ) stated that they had been forced by another person to sell assets or property.

Of the respondents, 55.7% ( $n=211$ ) reported that others had requested financial support from them, which was stated to be a son by 27.3% ( $n=105$ ), daughter by 17.9% ( $n=69$ ), spouse by 4.4% ( $n=17$ ), and son-in-law by 4.4% ( $n=17$ ). The reason that financial support was requested was reported to be to meet household expenses by 21.8% ( $n=84$ ), to repay a loan by 16.1% ( $n=62$ ), and to pay medical expenses by 1.6% ( $n=6$ ).

It was reported by 36.6% ( $n=129$ ) of the respondents that a family member was still requesting financial support, stated to be a son by 17.4% ( $n=64$ ), daughter by 14% ( $n=54$ ), grandchildren by 3.1% ( $n=12$ ), and son-in-law by 2.3% ( $n=9$ ).

A loan had been taken out against their own salary or pension for a relative by 18.6% ( $n=71$ ) of the older adult

respondents. This was stated to be for a son by 9.9% ( $n=38$ ) of the respondents, for a daughter by 6% ( $n=23$ ), for a spouse by 2.9% ( $n=11$ ), for a son-in-law by 1.6% ( $n=6$ ), and for a daughter-in-law by 0.8% ( $n=3$ ). Loans were stated to have been taken out once by 48.6%, twice by 21.4%, and 3 or more times by 30% of the respondents. The loan repayments were said to have been repaid by the older adult taking out the loan in 75.4% of cases and by the person who had requested the loan in 24.6% of cases.

### Factors Affecting the Exposure of Older Adults to Economic Abuse

**Significance of Coefficients.** In the logistic regression analysis, the Enter Method was applied at the stage of measuring the exposure to economic abuse of the older adults, which is a dependent variable. The  $\beta$  parameters and Wald statistics, degree of freedom, importance levels, and Exp ( $\beta$ ) values associated with these parameters are shown in Table 5. From 8 independent variables, the specific categories of 5 are seen to be statistically significant at the level of 0.05. According to these data, the factors affecting exposure of the older adults to economic abuse were found to be age, income level, number of children, physical abuse status, and emotional abuse status.

**General Significance of the Model.** It is necessary to examine the  $p$  value of the Chi-square ( $\chi^2$ ) statistic for the general significance of the model (Oğuzlar, 2005). The logistic regression model formed in the scope of this study to reveal the factors affecting exposure of the older adults was found to be statistically significant ( $\chi^2 = 64.422$ ;  $p = .0001$ ).

**Goodness of Fit of the Model.** The goodness of fit of the model shows a measurement of the efficacy of the best model formed to explain the dependent variables (Oğuzlar, 2005).

**Hosmer–Lemeshow Test.** With this analysis, the compatibility of the logistic model formed to these data is tested (Lim et al., 2006). For this purpose, the zero hypothesis of "the logistic model formed is suitable" and the alternative hypothesis of "the logistic model formed is not suitable" were formulated. According to the Hosmer–Lemeshow test,  $\chi^2 = 9.828$  and  $p = .277$  were determined and the model formed was found to be a suitable model for the data.

**Classification Table.** The Classification Table was obtained with cross-classification of the dependent variables. As seen in Table 4, the logistic function formed considering 8 independent variables was found to have the power of correct classification at the rate of 69.6%.

**Interpretation of the Odds Ratio.** According to the results of the logistic regression analysis, income level (number of children

**Table 3.** Some Situations of Exposure to Economic Abuse of Older Adults.

	Yes		No	
	N	%	N	%
Has anything belonging to you ever been taken without permission?	69	17.9	316	82.1
*What was taken?				
Money	39	10.1	—	—
Possessions	27	7	—	—
Jewelry with financial value	14	3.6	—	—
Other	9	2.3	—	—
Have you been forced to sell any asset or property?	52	13.6	329	86.4
Has anybody asked you for financial support?	211	55.7	168	44.3
*Who requested help?				
Son	105	27.3	—	—
Daughter	69	17.9	—	—
Spouse	17	4.4	—	—
Son-in-law	17	4.4	—	—
Grandchild	14	3.6	—	—
Daughter-in-law	9	2.3	—	—
Other	62	6.1	—	—
*For what purpose was this help requested?				
To meet household expenses	84	21.8	—	—
To make loan payments	62	16.1	—	—
For medical expenses	6	1.6	—	—
Other	94	24.4	—	—
Is anybody in the family still asking for financial support from you?	129	36.6	223	63.4
*Who requested help?				
Son	67	17.4	—	—
Daughter	54	14	—	—
Grandchild	12	3.1	—	—
Son-in-law	9	2.3	—	—
Spouse	8	2.1	—	—
Daughter-in-law	4	1	—	—
Other	19	4.9	—	—
Have you ever taken out a loan against your salary (or pension) for a relative?	71	18.6	310	81.45
*For whom did you take out the loan?				
Son	38	9.9	347	90.1
Daughter	23	6	362	94
Spouse	11	2.9	374	97.1
Son-in-law	6	1.6	379	98.4
Daughter-in-law	3	0.8	382	99.2
Other	15	3.9	370	96.1
*How many times have you taken out such a loan?				
Once	34	48.6	—	—
Twice	15	21.4	—	—
3 times or more	21	30	—	—
*Who made the loan repayments?				
Myself	52	75.4	—	—
The person who needed the loan	17	24.6	—	—

The calculations were made according to the number of participants who responded. Therefore, differences can be seen in the total numbers. Questions marked “\*” could be answered with more than one option.

(1 or more children vs. no children), physical abuse status (exposed or not exposed to physical abuse), and emotional abuse status (exposed or not exposed to emotional abuse) were found to be factors increasing the probability of exposure to economic abuse, and age was a factor reducing the probability (Table 5).

- Age: An increase of one unit in the variable of age was found to increase the probability of exposure to economic abuse at the rate of 4.2%.
- Income Level: The reference category for this variable was “0–1500 TL.” Those who responded to this

question with “3001TL+” were at a 4.748-fold higher probability of exposure to economic abuse compared to those with income of 0–1500TL.

- Number of Children: The reference category for this variable was “0.” Those who responded to this question with “1–2” were at a 4.893-fold higher probability of exposure to economic abuse, those with 3 children were at 5.793-fold greater risk, and those with 4+ children were at 4.324-fold greater risk compared to those with no children.
- Physical Abuse Status: The reference category for this variable was “exposure to physical abuse.” Those who



**Table 4.** Classification Table.

		Estimated		Accuracy percentage
		There is economic abuse	There is no economic abuse	
Observed	There is economic abuse	206	37	84.8
	There is no economic abuse	79	60	43.2
				69.6

Note. This table compares observed abuse status (as defined by direct responses to survey questions) to estimated abuse status (as defined by the regression model) and shows that the model has an accuracy rate of 69.6% in correctly classifying economic abuse.

**Table 5.** Variables in the Logistic Regression Model.

Variables	$\beta$	SD	Wald	df	$p$	Exp ( $\beta p$ ) (OR)
Fixed	0.332	1.625	0.042	1	.838	1.394
Gender ( $X_1$ )	-0.049	0.267	0.033	1	.855	0.952
Age ( $X_2$ )	0.042	0.020	3.930	1	<b>.024</b>	1.043
Education level (illiterate)			0.498	4	.974	
Education level (literate) ( $X_3$ )	0.163	0.491	0.110	1	.740	1.177
Education level (primary school) ( $X_4$ )	0.103	0.400	0.066	1	.797	1.108
Education level (middle school and high school) ( $X_5$ )	-0.057	0.455	0.016	1	.901	0.945
Education level (university graduate) ( $X_6$ )	-0.106	0.594	0.032	1	.859	0.900
Marital status (married)			0.745	2	.689	
Marital status (widowed) ( $X_7$ )	-0.151	0.321	0.222	1	.638	0.860
Marital status (single/separated) ( $X_8$ )	0.363	0.585	0.385	1	.535	1.437
Income level (0-1500TL)			14.024	2	<b>.001</b>	
Income level (1501TL-3000TL) ( $X_9$ )	0.315	0.283	1.240	1	.265	1.370
Income level (3001TL+) ( $X_{10}$ )	1.558	0.422	13.646	1	<b>.001</b>	4.748
Number of children (0)			8.067	3	<b>.045</b>	
Number of children (1-2) ( $X_{11}$ )	1.588	0.611	6.758	1	<b>.009</b>	4.893
Number of children (3) ( $X_{12}$ )	1.757	0.625	7.889	1	<b>.005</b>	5.793
Number of children (4+) ( $X_{13}$ )	1.464	0.613	5.707	1	<b>.017</b>	4.324
Exposure to physical abuse ( $X_{14}$ )	0.960	0.294	10.699	1	<b>.001</b>	2.612
Exposure to emotional abuse ( $X_{15}$ )	1.192	0.277	18.487	1	<b>.0001</b>	3.294
Nagelkerge $R^2 = 0.212$						
-2LL = 436.468						
Cox & Snell R Square = 0.155. $p < .05$ .						

replied "yes" were at a 2.612-fold greater probability of exposure to economic abuse than those who replied "no."

- Emotional Abuse Status: The reference category for this variable was "exposure to emotional abuse." Those who replied "yes" were at a 3.294-fold greater probability of exposure to economic abuse than those who replied "no."

**Estimated Probability.** When different probability calculations were made from the estimated model, the probability of exposure to economic abuse was classified as  $z = 1$  when  $\geq 0.5$  of the value of  $P_i = \frac{1}{1+e^{-z}}$  found with the logistic regression equation of  $Z = \beta_0 + \beta_1 X_1 + \dots + \beta_k X_k$  when defined as  $1 - P_i$  with  $P_i$  as the probability of exposure to economic abuse, and  $z = 0$  when  $< 0.5$  (Aktaş & Yılmaz, 2001, p. 253). Therefore,

the equation used for the classification in this study was;  $Z = 0.332 - 0.039 * X_2 + 1.558 * X_{10} + 1.588 * X_{11} + 1.757 * X_{12} + 1.464 * X_{13} + 0.960 * X_{14} + 1.192 * X_{15}$ .

## Discussion

The older adults in this study comprised 51.4% males and 48.6% females with a mean age of  $70.44 \pm 6.73$  years (range, 65-105 years), the vast majority was married and 93.8% had at least one child.

It was determined that 9.4% of the participants had been exposed to economic abuse. Among elder abuse types, the second most common, albeit under-studied, is financial abuse. Financial abuse has a prevalence of 6.8% for adults 60 or older worldwide, and between 0.7% and 1.0% for UK

adults aged 66 or older (O’Keeffe et al., 2007; Yon et al., 2017). In addition, Fraga Dominguez et al. (2021), the rate of those who were exposed to financial abuse was reported as 47.4% in the UK. The National Elder Mistreatment Study (NEMS) found that 5.2% of community older adults experienced financial abuse in U.S. population (Acierno et al., 2010). In some studies in literature related to the incidence of economic abuse, it has been reported to be the most common form of abuse experienced by older adults (Boldy et al., 2005; Choi & Mayer, 2008) and it has been reported that the vast majority of cases of economic abuse are hidden as they are not reported by older adults (Timmermann, 2009). Older adults are generally embarrassed to talk about such a situation related to a family member, or they do not wish to speak about the situation as they are not fully aware that their money has been taken (Payne & Strasser, 2012).

Of the older adults in this study, 17.9% ( $n:69$ ) reported that there had been times when money, goods or other items of value such as jewelry had been taken without permission, 13.6% ( $n:52$ ) stated that they had been forced by another person to sell assets or property, 55.7% ( $n:211$ ) stated that there were people who had requested financial support from them, 6.6% ( $n:129$ ) reported that there was currently a family member requesting financial support, and 18.6% ( $n:71$ ) reported that they had taken out a loan against their own salary or pension for another person.

In some studies (Choi & Mayer, 2008), the most common situations of economic abuse have been reported to be a family member spending the money (pension) of the older adults, stealing their money or the disappearance of financial assets. In a study of older adult immigrants in Korea, emotional pressure applied to the older adults related to finances was also defined by the older adults as economic abuse (Lee et al., 2012). This raises the question of “can every request for financial support be evaluated as economic abuse?” When this question is considered within the cultural structure of Turkey, even if it is perceived as an indicator of intergenerational support, from the answers given to the questions in this study there is seen to be a situation based on a significant degree of force and demand.

According to the results of the current study, income level, the number of children (having one or more children compared to no children), physical abuse status (exposed or not exposed to physical abuse), and emotional abuse status (exposed or not exposed to emotional abuse) were found to be factors increasing the probability of exposure to economic abuse, and age was found to be a factor reducing the probability of exposure to economic abuse. However, the variables of gender, marital status and level of education were not found to affect the economic abuse status.

The gender of the older adults was not found to be a factor affecting economic abuse. In studies by Özer (2013), Aslan (2012, p. 31), there was also found to be no statistically significant difference between economic abuse statuses according to gender. However, there are some studies in

literature that have reported that females are more vulnerable to economic abuse than males (Choi & Mayer, 2008), while a study by Daşbaşı (2014, p. 65) reported that males had been exposed to economic abuse more than females, although not to a statistically significant level.

The age of the older adults in the current study was found to be a factor increasing the probability of exposure to economic abuse. In a study by Özer et al. (2013, p. 49), no statistically significant difference was determined between economic abuse statuses according to age. In contrast, Daşbaşı (2014, p. 115) and Aslan (2012) reported a positive relationship between age and economic abuse. Previous studies in literature have shown that the individuals most exposed to economic abuse are aged 75 years and older (Bernatz et al., 2001). In the current study, the rate of exposure to economic abuse was seen to be higher in the 65–74 years and the 75–84 years age groups, and this was seen to be consistent with findings in literature. However, the results of the current study showed that individuals aged 85 years and older were exposed to economic abuse at lower rates. This could be due to the older adults in this age group having already had to transfer legal power of attorney to children or close relatives because of age-related diminished capabilities.

The level of education of the older adults in the current study was not determined as a factor affecting economic abuse. Similarly, Özer (2013, p. 49) reported that there was no statistically significant difference between economic abuse statuses according to the level of education. However, according to the studies by Daşbaşı (2014, p. 17) and Aslan (2012, p. 33), a statistically significant difference was found between economic abuse statuses according to the level of education. As education increases both money management skills and other life skills, it can be said that as older adults who have not been included in any education system have not developed these skills sufficiently, they are exposed to more economic abuse than older adults with a high level of education (Daşbaşı, 2014, p. 117).

The marital status of the older adults in the current study was not determined as a factor affecting economic abuse. Similarly, Özer (2013, p. 49) and Aslan (2012, p. 32) reported that there was no statistically significant difference between economic abuse statuses according to the marital status. In contrast, reported that being married could increase economic abuse, whereas according to studies by Daşbaşı (2014, p. 116) and Podnieks (1992), older adults who are divorced, live alone, have never been married or are separated from their spouse are exposed to economic abuse at higher rates than those who are married.

The income level of the older adults in the current study was found to be a factor increasing the probability of exposure to economic abuse. In the study by Özer (2013, p. 49), there was a statistically significant difference in economic abuse statuses according to the income level of older adults and a higher level of economic abuse was reported in older adults with income lower than expenses compared to those



with equal income and outgoings, and those with a higher income than expenses.

The number of children of the older adults in the current study was found to be a factor increasing the probability of exposure to economic abuse. Aslan (2012, p. 30) reported a positive correlation between the number of children and economic abuse. In addition considering the traditional family structure in Turkey, it is seen that the older adults mostly prefer to live with their boys (TÜİK, 2016). In this context, it has been observed that the older adults generally exhibit the behavior of both demanding more financial support and being exposed to economic abuse by their male children with whom they share the same house. This finding is compatible with similar studies in the literature. This situation explains the high rate of male children in the rate of exposure to abuse (Artan, 2016).

Exposure to physical and emotional abuse, in the current study was found to be a factor increasing the probability of exposure to economic abuse. This situation is explained by the concept of poly-victimization in the literature. As evidence suggests that older adults often experience poly-victimization, that is, more than one type of abuse simultaneously (Hamby et al., 2016; Williams et al., 2020). Thus, victims of financial abuse are also frequently victimized in other ways, and research by Jackson and Hafemeister (2011) found unique risk factors (i.e., codependency) associated with financial abuse co-occurring with other types.

## Conclusion and Recommendations

Older adult population is increasing rapidly throughout the world in general and this has led to several problems. Abuse of older adults is a social problem involving almost all the countries in the world. Therefore, it is of the greatest importance to determine and evaluate the factors that increase the risk of older adults being exposed to abuse.

Determination of the factors increasing the risk of exposure of older adults to economic abuse provides the opportunity for protective and preventative studies to be conducted. As a result of the current study, which was conducted with the aim of determining the factors affecting economic abuse of older adults, age, income level, the number of children, and exposure to physical or emotional abuse were found to be factors with an effect on the risk of exposure to economic abuse.

Researchers and clinicians who have worked in the field of elder abuse for many years, aware of the urgent need for effective interventions (Lachs et al., 2021). Millions of older adults are abused each year, with an annual prevalence rate of elder abuse in all its forms approaching or exceeding 10% (Yon et al., 2017). The costs of elder mistreatment are enormous, including not only unnecessary human suffering but also strains placed on health and social service systems that work to prevent and treat these complex cases.

There is no valid and reliable measurement tool in the literature for the determination of economic abuse in older adults. This situation also makes it difficult to detect the abuse situation. In this respect, it is also important to develop measurement tools to determine economic abuse in older adults.

While the scars of economic abuse may not be apparent, reporting these instances is essential to victims, as it often represents the first and fundamental step in accessing victim services and justice. However, such reporting is unlikely in a society so accepting of violence against older adults, particularly in the form of economic abuse. Public awareness campaigns highlighting and condemning elder economic abuse, much like those for child abuse and domestic violence, are needed.

In addition, investigating the social, economic, and cultural reasons that cause financial abuse in older adults; it is thought that it can contribute to the development of protective and preventive services for the prevention of financial abuse.

## Limitations

The data of the study is limited to the measurements of the data collection tools and the sample group. The sample group is limited to older adults living in the community-dwelling adults, and it is recommended that similar studies be conducted on an institution-based basis.

Considering that the types of abuse are related to each other, in this study, only economic abuse is focused on just to raise awareness. Studying each abuse type separately does have limitations. Research has rarely addressed poly-victimization, so there is limited updated knowledge about these potential differences.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

## Ethical Approval

Ethical approval was received from the Social and Human Sciences Ethics Committee of Istanbul University-Cerrahpasa (2018/06).

## ORCID iD

Hatice Selin Irmak  <https://orcid.org/0000-0001-5032-1767>

## References

- Acierno, R., Hernandez-Tejada, M. A., Amstadter, A. B., Resnick, H. S., Steve, K., Muzzy, W., & Kilpatrick, D. G. (2010). Prevalence and correlates of emotional, physical, sexual, and financial abuse and potential neglect in the United States: The

- national elder mistreatment study. *American Journal of Public Health*, 100(2), 292–297. <https://doi.org/10.2105/AJPH.2009.163089>
- Acierno, R., Steedley, M., Hernandez-Tejada, M. A., Froom, G., Watkins, J., & Muzzy, W. (2020). Relevance of perpetrator identity to reporting elder financial and emotional mistreatment. *Journal of Applied Gerontology*, 39(2), 221–225. <https://doi.org/10.1177/0733464818771208>
- Akdemir, N., Görgülü, Ü., & Çınar, F. İ. (2008). Elder abuse and neglect. *Hacettepe University Faculty of Health Sciences Nursing Journal*, 15(1), 68–75. <https://doi.org/10.4274/atfm.08208>
- Aktaş, C., & Yılmaz, V. (2001). *Logistic regression analysis in the classification of private vehicle drivers using lpg in Eskisehir* (pp. 251–256). In İstanbul Kent İçi Ulaşım Sempozyumu, İstanbul, Turkey, June 28–30, 2001.
- Artan, T. (2016). Huzurevinde kalmakta olan yaşlılarda yaşlı istismarının bir türü olarak ekonomik istismar. *Sağlık Bilimleri ve Meslekleri Dergisi*, 3(1), 48–56. <https://doi.org/10.17681/hsp.78913>
- Aslan, H. (2012). *The elders? Exposure to abuse and negligence situations and effective factors* [Master's thesis], ProQuest Dissertations and Theses database. UMI No. 324126]. University of Inonu, Health Sciences Institute.
- Baker, A. A. (1975). Granny battering. *Modern Geriatrics*, 144(8), 20–24. <https://doi.org/10.1136/bmj.3.5983.592-a>
- Bernatz, S. I., Aziz, S. J., & Mosqueda, L. (2001). Financial abuse. In M. D. Mezey (Ed.), *The Encyclopedia of elder care*. Springer Publishing Co.
- Boldy, D., Horner, B., Crouchley, K., Davey, M., & Boylen, S., et al. (2005). Addressing elder abuse: Western Australian case study. *Australasian Journal on Aging*, 24(1). <https://doi.org/10.1111/j.1741-6612.2005.00058.x>
- Burnett, J., Suchting, R., Green, C. E., Cannell, M. B., & Dyer, C. B., et al. (2020). Socioecological indicators of senior financial exploitation: An application of data science to 8,800 substantiated mistreatment cases. *Journal of Elder Abuse & Neglect*, 32(2).
- Burston, G. (1977). Do your elderly parents live in fear of being battered? *Modern Geriatrics*, 7(5), 54–55.
- Chan, A. C., & Stum, M. S. (2021). A family systems perspective of elder family financial exploitation: Examining family context profiles. *Journal of Applied Gerontology*, 41(4), 945–951. <https://doi.org/10.1177/07334648211056927>
- Choi, N., & Mayer, J. (2008). Elder Abuse, Neglect, and Exploitation. *Journal of Gerontological Social Work*, 33(2).
- Daşbaş, S. (2014). *Reviews of people who are 65 and older about domestic elder abuse* [Doctoral dissertation, YOK Theses database UMI No. 354726]. University of Hacettepe, Social Sciences Institute.
- Fraga Dominguez, S., Ozguler, B., Storey, J. E., & Rogers, M. (2021). Elder abuse vulnerability and risk factors: Is financial abuse different from other subtypes? *Journal of Applied Gerontology*, 41(4), 928–939. <https://doi.org/10.1177/07334648211036402>
- Gürbüz, S., & Şahin, F. (2015). *Sosyal bilimlerde araştırma yöntemleri*. Seçkin Yayıncılık.
- Hamby, S., Smith, A., Mitchell, K., & Turner, H. (2016). Polyvictimization and resilience portfolios: Trends in violence research that can enhance the understanding and prevention of elder abuse. *Journal of Elder Abuse & Neglect*, 28(4–5), 217–234. <https://doi.org/10.1080/08946566.2016.1232182>
- Jackson, S. L., & Hafemeister, T. L. (2011). Risk factors associated with elder abuse: The importance of differentiating by type of elder maltreatment. *Violence and Victims*, 26(6), 738–757. <https://doi.org/10.1891/0886-6708.26.6.738>
- Kalaycı, I., Yazıcı, S. Ö., & Şenkaynağı, A. (2015). Violence perception of the old people's attendants: Sample of Suleyman Demirel University Hospital. *Elderly Issues Research Journal*, 8(1), 22–33.
- Karasar, N. (2009). *Bilimsel araştırma yöntemleri*. Nobel Yayın Dağıtım.
- Lachs, M., Mosqueda, L., Rosen, T., & Pillemer, K. (2021). Bringing advances in elder abuse research methodology and theory to evaluation of interventions. *Journal of Applied Gerontology*, 40(11), 1437–1446. <https://doi.org/10.1177/0733464821992182>
- Lai, W. L. D. (2011). Abuse and neglect experienced by aging Chinese in Canada. *Journal of Elder Abuse & Neglect*, 23(4), 326–347. <https://doi.org/10.1080/08946566.2011.584047>
- Lee, H. Y., Lee, S. E., & Eaton, C. K. (2012). Exploring definitions of financial abuse in elderly Korean immigrants: The contribution of traditional cultural values. *Journal of Elder Abuse & Neglect*, 24(4), 293–311. <https://doi.org/10.1080/08946566.2012.661672>
- Lichtenberg, P. A. (2016). Financial exploitation, financial capacity, and Alzheimer's disease. *American Psychologist*, 71(4).
- Lim, K. L., Jacobs, P., & Klarenbach, S. (2006). A population-based analysis of healthcare utilization of persons with back disorders: results from the Canadian Community Health Survey 2000-2001. *Spine*, 31(2), 212–218. <https://doi.org/10.1097/01.brs.0000194773.10461.9f>
- Malks, B., Schmidt, C. M., & Austin, M. J. (2002). Elder abuse prevention: A case study of the Santa Clara County Financial Abuse Specialist Team (FAST) Program. *Journal of Gerontological Social Work*, 39(3), 23–40. [https://doi.org/10.1300/j083v39n03\\_03](https://doi.org/10.1300/j083v39n03_03)
- Oğuzlar, A. (2005). Lojistik regresyon analizi yardımıyla suçlu profilinin belirlenmesi. *Atatürk ÜİİB Dergisi*, 19(1), 25–26.
- O'Keefe, M., Hills, A., Doyle, M., McCreadie, C., Scholes, S., Constantine, R., Tinker, A., Manthorpe, J., Biggs, S., & Erens, B. (2007). *UK study of abuse and neglect of older people: Prevalence survey report*. National Center for Social Research.
- Özer, N. (2013). *Determining depression, abuse and neglect in elderly individuals* [Master's thesis, YOK theses database UMI No. 329100]. University of Gaziantep, Health Sciences Institute.
- Payne, B., & Strasser, S. (2012). Financial exploitation of older persons in adult care settings: Comparisons to physical abuse and the

- justice system's response. *Journal of Elder Abuse and Neglect*, 24(3), 231–250. <https://doi.org/10.1080/08946566.2011.653315>
- Peterson, J. C., Burnes, D., Caccamise, P. L., & Mason, A., et al. (2014). Financial exploitation of older adults: A population-based prevalence study. *Journal of General Internal Medicine*, 29(12).
- Podnieks, E. (1992). National survey on abuse of the elderly in Canada. *Journal of Elder Abuse and Neglect*, 4(1/2), 5–58. [https://doi.org/10.1300/j084v04n01\\_02](https://doi.org/10.1300/j084v04n01_02)
- Sayan, A., & Durat, G. (2004). Elder abuse and neglect: Preventive intervention. *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi*, 7(3), 47–54. <https://doi.org/10.17049/ataunihem.634775>
- Timmermann, S. (2009). Protecting the most vulnerable from financial abuse: What should we know? *Journal of Financial Service Professionals*, 63(3), 23–25.
- Türkiye İstatistik Kurumu (TÜİK). (2016). Aile Yapısı İstatistikleri 2016. <https://biruni.tuik.gov.tr/medas/?locale=tr>
- Ünlü, D. (2019). *Yaşlıların ekonomik istismara maruz kalma durumlarının incelenmesi: İstanbul Bahçelievler örneği* [Master's thesis, Sosyal Bilimler Enstitüsü].
- Williams, J. L., Racette, E. H., Hernandez-Tejada, M. A., & Aciermo, R. (2020). Prevalence of elder polyvictimization in the United States: Data from the national elder mistreatment study. *Journal of Interpersonal Violence*, 35(21–22), 4517–4532. <https://doi.org/10.1177/0886260517715604>
- World Health Organization. (2002). *The Toronto declaration on the global prevention of elder abuse*. World Health Organization.
- Yon, Y., Mikton, C. R., Gassoumis, Z. D., & Wilber, K. H. (2017). Elder abuse prevalence in community settings: A systematic review and meta-analysis. *Lancet*, 5(2), 147–156. [https://doi.org/10.1016/S2214-109X\(17\)30006-2](https://doi.org/10.1016/S2214-109X(17)30006-2)