



## Original Article

### Prevalence of Elder Abuse and its Related Factors among Elderly Referring to Social Security Outpatient Clinic in Yasouj, Iran

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## ABSTRACT

### Article history

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**Introduction:** Elder abuse is a major public health concern worldwide. Considering the high prevalence of misbehavior towards the elderly, this study investigated the prevalence of elder abuse and its related factors among the elderly people in Yasouj, Iran in 2021.

**Methods:** Using a convenience sampling method, this cross-sectional study included 299 older adults aged over 60 years referring to the Social Security Outpatient Clinic in Yasouj. To collect data, we used the Domestic Elder Abuse Questionnaire. To analyze the data, chi-square and multiple logistic regression statistical tests were used.

**Results:** Of the participants, 55.2 % reported at least one type of misbehavior. While psychological misbehavior had the highest prevalence (41.8 %), rejection had the lowest prevalence (10.7 %). Multiple regression analysis showed that elder abuse was statistically associated with higher educational status ( $p = 0.002$ ), lower economic status ( $p = 0.002$ ), and single people reported a higher rate of elder abuse ( $p = 0.001$ ).

**Conclusion:** According to our results, more than half of the participants reported at least one type of elder abuse, and psychological abuse was the most common type of abuse experienced by the elderly. Since elder abuse can have serious effects on the health and well-being of the elderly, it is critical to identify the related risk factors. Furthermore, it is essential to implement screening programs to increase the awareness of the elderly and caregivers.

**Keywords:** Aging, Elder Abuse, Misbehavior, Yasouj

### Introduction

Older adults are a vulnerable group in society; they are exposed to various diseases and disabilities and need medical care and social support (1). The probability of elder abuse increases in long-term care. It can lead to an increase in mortality and a decrease in

the social and psychological functioning of the elderly, leading to a decrease in their quality of life (2). Elder abuse has a significant relationship with increasing the hospitalization rate, visits to the emergency department, and transfer to nursing homes and care centers (2-4).

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Therefore, considering the need to maintain health and ensure their comfort and well-being, knowing the prevalence of elder abuse and its risk factors in every society is of particular importance (5).

According to the definition by the World Health Organization (WHO), elder abuse is doing or not doing a single or consecutive behavior that causes annoyance, distress or harm to the person, causes anxiety or deprives her/his of comfort. It can be done by trusted people such as family and children or other people and occur in the form of physical, psychological, and sexual abuse, financial exploitation, and neglect (6).

Elder abuse is a common phenomenon in many countries. In a review of 44 studies around the world, the average prevalence of elder abuse was 15.7% (ranging from 3.2% to 27.5%) (7). In another study, the average prevalence of elder abuse in 28 countries was 14.1% in 2017 (8). In an Iranian study, while the highest rate of elder abuse was related to caregiver neglect (38.4%), the lowest rate was related to physical abuse (11.6%) (9). According to a report from the United States Department of Justice, harassment and inappropriate behavior with the elderly is significantly more than the actual amount. Only one out of every 23 cases are reported to the responsible organizations (10). Studies have shown that the highest amount of elder abuse happens by family members and caregivers of the elderly (11). A cross-sectional study conducted in 2013 on 200 elderlies over 65 years of age hospitalized in Meybod Hospital showed a significant relationship between misbehavior and physical and economic dependence of the elderly, especially when the financial burden is on the caregivers. The findings of the study showed that perhaps older women are more economically dependent on their caregivers and are more exposed to abuse (12).

One study investigated the prevalence of elder abuse in Iran from 2005 to 2015 and reported that the elder abuse rate in Iran was much higher than in other countries. The overall prevalence of elder abuse in Iran in this study was 56.4%. Moreover, emotional abuse (30.7%), psychological abuse (25.4%), neglect (25.1%), financial abuse (19.7%), physical abuse (13.1%), and rejection (11.7%) were the most common types of elder abuse in Iran (13). The results of another Iranian study conducted in Maragheh showed that among the participants, 45.8% reported abuse, including physical abuse (64.9%), psychological abuse (76.3%), neglect (42%), rejection (16.8%), and financial abuse (29.7%). There was a significant association between elder abuse and age. In fact, elder abuse was less common in those aged 60-70 years old ( $p < 0.001$ ). No significant association was found between elder abuse and body mass index ( $p = 0.582$ ) and gender ( $p = 0.258$ ). (14).

Functional disability and dependence, low income and financial dependence, cognitive and mental disorders, the caregiver's mental health, drug abuse by the caregiver, and dependence on the elderly are among the causes of the elderly misbehavior (15). With the increased age of the elderly, their physical, psychological, and cognitive performance decreases,

and these factors may expose them to caregiver abuse (15, 16).

There are limited studies conducted on elder abuse in Iran with contradictory results. However, no study has evaluated the prevalence and factors affecting elder abuse in Yasouj. Therefore, this study investigated the prevalence of elder abuse and its related factors in Social Security Insurance Clinic in Kohgiluyeh and Boyer Ahmad province.

## Methods

### Study design

This cross-sectional study was conducted in 2021 on older adults referred to the outpatient clinic of the social security organization in Yasouj, Kohgiluyeh and Boyer Ahmad province, Iran.

Yasouj is one of the cities of southwestern Iran and the center of Kohgiluyeh and Boyer Ahmad province. According to the population and housing census of 2010, the population of Yasouj was 108,505 people (50.52% males vs. 49.48% females). Life expectancy in this city was 68.4 years in 1996, and 70.3 years in 2006 (17).

All older adults aged over 60 years referred to Yasouj Social Security Outpatient Clinic who were capable to communicate and answer the questions verbally were included. Based on a score of 7 or above on the Abbreviated Mental Test, the participants had the appropriate physical and mental ability to give informed consent and they were fully aware of time and place (18).

### Participants

Sampling was done in a convenient method based on the list of patients aged over 60 referred to the Social Security Clinic of Yasouj. Using the available sampling method and based on the prevalence of 56.4% (19), confidence interval of 95%, and the error of 5%, the sample size was calculated as 272 individuals, which increased to 299 after considering 10% attrition rate. The interviews and completing the questionnaires were performed in a safe and private environment. The questionnaire was completed for those who could not read for any reason via interview. Due to the COVID-19 pandemic, the participants filled out the questionnaires according to the related health protocols.

### Instruments

Two questionnaires were used to collect data, including a demographic questionnaire and the Domestic Elder Abuse Questionnaire.

1) Demographic Information Questionnaire: included personal information such as age, marital status, education, place of residence, perceived socioeconomic status, and underlying disease.

2) Domestic Elder Abuse Questionnaire: This questionnaire include 42-items and has eight subscales, including care neglect (11 questions), psychological abuse (8 questions), physical abuse (4 questions), financial abuse (6 questions), deprivation of choice (10 questions), rejection (4 questions), financial neglect (4

questions), and emotional abuse (2 questions). This questionnaire was developed and validated by Heravi et al., (2008) in Iran. The items of the mentioned tool have the options of yes and no. The scores obtained in this questionnaire are in the range of 1-100, and a higher score indicates the presence of more severe symptoms of misbehavior (20).

#### Data analysis

The collected data were analyzed in the Statistical Package for the Social Sciences (SPSS V.23) software. Chi-square test was used to check the relationship between each of the variables and types of elder abuse. Multiple logistic regression was used to investigate the statistical relationship between demographic and individual variables.

#### Ethical considerations

The study protocol was approved by the Ethics Committee of the University of Rehabilitation Sciences and Social Health, Tehran, Iran (code: IR.USWR.REC.2017.129). The study aims were explained to all participants and they were advised that they could withdraw from the study at any stage. All participants signed a written informed consent.

#### Results

Out of 299 participants, 162 (54.2%) were female and 137 (45.8%) were male. While most participants (56.9%) were in the age range of 60-75 years, 18.4% were in the age range of 75-85 years. Most participants (54.8%) were married and 21.7% were illiterate. (Table 1)

As Table 2 shows, 165 (55.2%) participants stated that they had experienced one type of misbehavior. While the highest prevalence was related to psychological abuse (41.8%), the lowest prevalence was related to rejection (10.7%).

There was no statistically significant relationship between gender and any type of abuse. However, females experienced more types of misbehavior than males. There was a statistically significant relationship between educational status and psychological abuse and rejection in the elderly. Also, we observed a significant relationship between the place of residence, marital status (except financial negligence), and perceived economic status with misbehavior. As for the perceived economic situation, all types of misbehavior were significantly lower for older adults with better financial situation. There was no significant relationship between such factors as the age groups, number of children, and occupation with any type of misbehavior. Table 3 summarizes the details of the chi-square test.

Regarding chronic diseases, the highest prevalence of misbehavior was related to patients with cardiovascular disease (59.7%), followed by joint pain (56.1%), gastrointestinal disease (53.2%), blood lipid (51.8%), and diabetes (48.1%). In the elderly with no chronic

disease, the misbehavior was 50.7%, 69.2% with people with a chronic disease, and 58.1% with people with two or more chronic diseases. Moreover, there was no significant relationship between the type of chronic diseases and misbehavior.

As Table 4 shows, the results of multiple regression analysis indicated a statistically significant relationship between educational status and elder abuse ( $p = 0.002$ ). Moreover, with one grade of increase in the education level, elder abuse increased by 1.2 times in secondary education and two times in diploma education compared to illiterate individuals.

Elder abuse had a significant relationship with the perceived economic status of the elderly ( $p = 0.002$ ); in other words, with one unit of increase in the perceived economic status, elder abuse decreased by 0.8. There was a significant relationship between the residence place of the elderly and elder abuse ( $p = 0.002$ ), so that the prevalence of elder abuse was higher among the elderly living in the city. Moreover, we witnessed a statistically significant relationship between elder abuse and marital status ( $P = 0.001$ ), so that unmarried individuals were at a higher risk of elder abuse.

#### Discussion

The present study investigated the prevalence of elder abuse and its related factors in the elderly referred to the Social Security Outpatient Clinic in Yasouj. Based on the obtained results, 55.2% of the elderly experienced misbehavior.

According to official statistics in 2017, the average rate of elder abuse in 28 countries was 14.1% (8). In a meta-analysis study conducted in 2019, the average prevalence of elder abuse in Iran was 48.3% (9). In another Iranian study conducted in Yazd in 2013, it was reported that 79.6% of the elderly had experienced at least one type of elder abuse (21). In 2016, a structured review and meta-analysis study investigated the prevalence of elder abuse in Iran from 2005 to 2015. According to its results, the overall prevalence of elder abuse in Iran was 56.4% (13). In a cross-sectional study, the prevalence of misbehavior towards the elderly in Tehran was generally 87.8% (22). Another study compared the misbehavior among Fars and Turk elderly people in Chaharmahal and Bakhtiari province. The results showed that 17.14% of the participants experienced misbehavior (23). In another study on older women in Sabzevar, 49.39% of the participants reported the experience of misbehavior (24). The findings of Nassiri et al., showed that 63.3% of the study participants experienced at least one type of misbehavior (25). The prevalence of elder abuse was 52.6% in the study conducted by Setodan et al., and the most common type of abuse was emotional neglect by family members (26). Similar to the results of our study, Kisal (27), Amstadter (28), Perez-Carcelles (29), and Oh (30) demonstrated that psychological misbehavior was the most prevalent type of elder abuse.

Table 1. The demographic information and underlying variables in the participants

| Variable                         | Status                        | Frequency | Percentage | Elder abuse |
|----------------------------------|-------------------------------|-----------|------------|-------------|
| <b>Gender</b>                    | Male                          | 137       | 45.8       | 89 (53.9)   |
|                                  | Female                        | 162       | 54.2       | 76 (46.1)   |
| <b>Marital status</b>            | Unmarried                     | 164       | 54.8       | 82 (47.4)   |
|                                  | Married                       | 135       | 45.2       | 83 (65.9)   |
| <b>Educational level</b>         | Illiterate                    | 65        | 21.7       | 24 (14.5)   |
|                                  | Elementary                    | 89        | 29.8       | 63 (38.2)   |
|                                  | High school                   | 26        | 8.7        | 20 (12.1)   |
|                                  | Diploma                       | 61        | 20.4       | 29 (17.6)   |
|                                  | University                    | 58        | 19.4       | 29 (17.6)   |
| <b>Age</b>                       | Youngest-old (60-74 years)    | 170       | 56.9       | 93 (56.4)   |
|                                  | Middle-old (aged 75-85 years) | 55        | 18.4       | 33 (20.0)   |
|                                  | Oldest-old (Over 85 years)    | 74        | 24.7       | 39 (23.6)   |
| <b>Place of residence</b>        | Village                       | 146       | 48.8       | 94 (57.0)   |
|                                  | City                          | 153       | 51.2       | 71 (43.0)   |
| <b>Number of children</b>        | 1 to 3                        | 102       | 34.1       | 16 (28.1)   |
|                                  | 4 to 6                        | 114       | 48.2       | 31 (54.3)   |
|                                  | More than 6                   | 53        | 17.7       | 53 (17.7)   |
| <b>Perceived economic status</b> | Good                          | 84        | 28.1       | 71 (23.7)   |
|                                  | Moderate                      | 118       | 39.5       | 120 (40.1)  |
|                                  | Weak                          | 97        | 32.4       | 108 (36.1)  |
| <b>Occupation status</b>         | Housewife                     | 69        | 23.1       | 43 (26.1)   |
|                                  | Disabled                      | 55        | 18.4       | 70 (42.4)   |
|                                  | Employed                      | 123       | 41.1       | 29 (17.6)   |
|                                  | Retired                       | 52        | 17.4       | 23 (13.9)   |
| <b>Underlying disease</b>        | No                            | 138       | 46.2       | 70 (50.7)   |
|                                  | 1 disease                     | 13        | 4.3        | 9 (69.2)    |
|                                  | 2 types of disease or more    | 148       | 49.5       | 86 (58.1)   |
| <b>Cardiovascular disease</b>    | Yes                           | 72        | 24.1       | 43 (59.7)   |
|                                  | No                            | 227       | 75.9       | 122 (53.7)  |
| <b>High blood fat</b>            | Yes                           | 85        | 24.4       | 44 (51.8)   |
|                                  | No                            | 214       | 71.6       | 121 (56.5)  |
| <b>Diabetes</b>                  | Yes                           | 54        | 18.1       | 26 (48.1)   |
|                                  | No                            | 245       | 81.9       | 139 (56.7)  |
| <b>Digestive disease</b>         | Yes                           | 47        | 15.7       | 25 (53.2)   |
|                                  | No                            | 252       | 84.3       | 140 (56.6)  |
| <b>Joint pain</b>                | Yes                           | 47        | 52.5       | 88 (56.1)   |
|                                  | No                            | 142       | 47.5       | 77 (54.2)   |

Table 2. Frequency distribution of types of misbehavior in the participants

| Types of misbehavior     | Number (percentage) |
|--------------------------|---------------------|
| Psychological            | 125 (41.8)          |
| Physical                 | 38 (12.7)           |
| Financial                | 35 (11.7)           |
| Rejection                | 32 (10.7)           |
| Neglect of care          | 76 (25.4)           |
| Emotional neglect        | 57 (19.1)           |
| Financial neglect        | 43 (14.4)           |
| Deprivation of authority | 83 (27.8)           |
| Total                    | 165 (55.2)          |

Table 3. The status of types of misbehavior based on demographic variables

|                           |                | Care neglect | Psychological | Physical  | Financial  | Deprivation of choice | Rejection | Financial neglect | Emotional neglect | Types of misbehavior |
|---------------------------|----------------|--------------|---------------|-----------|------------|-----------------------|-----------|-------------------|-------------------|----------------------|
| <b>Gender</b>             | Female         | 42 (55.3)    | 7 (53.6)      | 24 (63.2) | 22 (62.9)  | 50 (60.2)             | 21 (65.6) | 28 (65.1)         | 29 (50.9)         | 89 (53.9)            |
|                           | Male           | 34 (44.7)    | 58 (46.4)     | 14 (36.8) | 13 (37.1)  | 33 (39.8)             | 11 (34.4) | 15 (34.9)         | 28 (49.1)         | 76 (46.1)            |
| <b>Educational level</b>  | Illiterate     | 11 (14.5)    | 20 (46.4)     | 6 (15.8)  | 7 (20.0)   | 10 (12.0)             | 7 (21.9)  | 6 (14.0)          | 10 (17.5)         | 24 (14.5)            |
|                           | Elementary     | 22 (28.9)    | 47 (37.6)     | 8 (21.1)  | 13 (37.1)  | 29 (34.9)             | 3 (9.4)   | 8 (18.6)          | 23 (40.4)         | 63 (38.2)            |
|                           | High school    | 9 (11.8)     | 14 (11.2)     | 6 (15.8)  | 2 (5.7)    | 9 (10.8)              | 2 (6.3)   | 5 (11.6)          | 4 (7.0)           | 20 (12.1)            |
|                           | Diploma        | 16 (21.1)    | 23 (18.4)     | 6 (15.8)  | 6 (17.1)   | 15 (18.1)             | 10 (31.3) | 12 (27.9)         | 12 (21.1)         | 29 (17.6)            |
|                           | University     | 18 (23.7)    | 21 (16.8)     | 12 (31.6) | 7 (20.0)   | 20 (24.1)             | 10 (31.3) | 12 (27.9)         | 8 (14.0)          | 29 (17.6)            |
| <b>Age groups</b>         | 60-74 years    | 39 (51.3)    | 75 (60.0)     | 16 (42.1) | 18 (51.4)  | 45 (54.2)             | 17 (53.1) | 23 (53.5)         | 36 (63.2)         | 93 (56.4)            |
|                           | 75-85 years    | 16 (21.1)    | 24 (19.2)     | 11 (28.9) | 9 (25.7)   | 16 (19.3)             | 7 (21.9)  | 7 (16.3)          | 12 (21.1)         | 33 (20.0)            |
|                           | Above 85 years | 21 (27.6)    | 26 (20.8)     | 11 (28.9) | 8 (22.9)   | 22 (26.5)             | 8 (25.0)  | 13 (30.2)         | 9 (15.8)          | 39 (23.6)            |
| <b>Place of residence</b> | City           | 41 (53.9)    | 68 (54.4)     | 23 (60.5) | 18 (51.4)  | 48 (57.8)             | 15 (46.9) | 25 (58.1)         | 25 (43.9)         | 94 (57.0)            |
|                           | Village        | 35 (46.1)    | 57 (45.6)     | 15 (39.5) | 17 (48.6)  | 35 (42.2)             | 17 (53.1) | 18 (41.9)         | 32 (56.1)         | 71 (43.0)            |
| <b>Marital status</b>     | Married        | 34 (19.7)    | 63 (36.4)     | 16 (9.2)  | 106 (40.2) | 39 (22.5)             | 12 (6.9)  | 18 (10.4)         | 28 (16.2)         | 82 (47.4)            |
|                           | Unmarried      | 42 (33.3)    | 62 (49.2)     | 22 (17.5) | 20 (57.1)  | 44 (34.9)             | 20 (15.9) | 25 (19.8)         | 29 (23.0)         | 83 (65.9)            |
| <b>Economic status</b>    | Good           | 15 (19.7)    | 20 (16.0)     | 8 (21.1)  | 4 (11.4)   | 14 (16.9)             | 4 (12.5)  | 9 (20.9)          | 9 (15.8)          | 71 (23.7)            |
|                           | Moderate       | 37 (48.7)    | 57 (45.6)     | 19 (50.0) | 21 (60.0)  | 35 (42.2)             | 12 (37.5) | 18 (41.9)         | 24 (42.1)         | 120 (40.1)           |
|                           | Weak           | 24 (31.6)    | 48 (38.4)     | 11 (28.9) | 10 (28.6)  | 34 (41.0)             | 16 (50.0) | 16 (37.2)         | 24 (42.1)         | 108 (36.1)           |
| <b>Number of children</b> | 1 to 3         | 22 (28.9)    | 39 (31.2)     | 17 (44.7) | 8 (22.9)   | 24 (28.9)             | 24 (28.9) | 11 (34.4)         | 17 (39.5)         | 16 (28.1)            |
|                           | 4 to 6         | 38 (50.0)    | 64 (51.2)     | 13 (34.2) | 20 (57.1)  | 43 (51.8)             | 43 (51.8) | 13 (40.6)         | 16 (37.2)         | 31 (54.3)            |
|                           | More than 6    | 16 (21.1)    | 22 (17.6)     | 8 (21.1)  | 7 (20.0)   | 16 (19.3)             | 16 (19.3) | 8 (25.0)          | 10 (23.3)         | 53 (17.7)            |
| <b>Occupation status</b>  | Housewife      | 16 (21.1)    | 32 (25.6)     | 10 (26.3) | 8 (22.9)   | 25 (30.1)             | 12 (37.5) | 14 (32.6)         | 13 (22.8)         | 43 (26.1)            |
|                           | Employed       | 33 (43.4)    | 52 (41.6)     | 12 (31.6) | 10 (28.6)  | 31 (37.3)             | 10 (31.3) | 14 (32.6)         | 23 (40.4)         | 70 (42.4)            |
|                           | Disabled       | 15 (19.7)    | 24 (19.2)     | 9 (23.7)  | 12 (34.3)  | 15 (18.1)             | 6 (18.8)  | 9 (20.9)          | 14 (24.6)         | 29 (17.6)            |
|                           | Retired        | 12 (15.8)    | 17 (13.6)     | 7 (18.4)  | 5 (14.3)   | 12 (14.5)             | 4 (12.5)  | 6 (14.0)          | 7 (12.3)          | 23 (13.9)            |

Table 4. Predictors of misbehavior based on multiple logistic regression model

| Covariates                | Level                      | Coefficient | p-value |
|---------------------------|----------------------------|-------------|---------|
| Age                       | -                          | -0.018      | 0.25    |
| Gender                    | Male                       | -           | -       |
|                           | Female                     | -0.250      | 0.32    |
| Place of residence        | Village                    | -           | -       |
|                           | City                       | 0.595       | 0.015   |
| Educational level         | Illiterate                 | -           | -       |
|                           | Elementary                 | -0.43       | 0.31    |
|                           | High school                | 1.23        | 0.002   |
|                           | Diploma                    | 2.06        | 0.002   |
| Perceived economic status | University                 | 0.334       | 0.41    |
|                           | Weak                       | -           | -       |
|                           | Moderate                   | 0.115       | 0.68    |
|                           | Good                       | -0.819      | 0.01    |
| Occupation status         | Employed                   | -           | -       |
|                           | Housewife                  | 0.65        | 0.15    |
|                           | Retired                    | 0.27        | 0.59    |
|                           | Disabled                   | 0.39        | 0.44    |
| Marital status            | Unmarried                  | -           | -       |
|                           | Married                    | -1.53       | 0.001   |
| Having a chronic disease  | 1 disease                  | -           | -       |
|                           | No                         | -0.347      | 0.65    |
|                           | 2 types of disease or more | -0.284      | 0.69    |
| Cardiovascular diseases   | No                         | -           | -       |
|                           | Yes                        | -0.33       | -0.24   |
| High blood fat            | No                         | -           | -       |
|                           | Yes                        | 0.079       | 0.77    |
| Diabetes                  | No                         | -           | -       |
|                           | Yes                        | 0.366       | 0.26    |
| Digestive disease         | No                         | -           | -       |
|                           | Yes                        | 0.084       | 0.8     |
| Joint pain                | No                         | -           | -       |
|                           | Yes                        | 0.09        | 0.71    |

According to the disengagement theory, the elderly people are almost socially isolated and receive less attention. Their needs are sometimes neglected, while they still can play a role (31). One of the main reasons for the high prevalence of elder abuse in Iran is the passive and indifferent view towards the elderly, which has removed them from the natural cycle of social activities. As stated, the percentage of elder abuse in Yasouj was about three times the world average and even more than the national average. This can be due to differences in lifestyle, age, gender, marital status, children's financial status, society's general culture, and society's view of the elderly. There was no significant relationship between gender and any type of misbehavior. However, females experienced more types of misbehavior compared to males. The results of this study regarding the absence of a significant difference between the two genders were consistent with the studies carried out by Morowati et al., in Yazd (21) and Manoochehri et al., in Tehran (22). This may be due to cultural issues. A housewife with no source of income expects someone (father, husband, family members) to take care of her and is financially

dependent on them; so, she is more vulnerable to misbehavior.

Based on the findings of our study, there was a significant relationship between educational status and the prevalence of misbehavior among the elderly. This is in line with the studies conducted by Haghighatian et al., (32), Karimi et al., (34), Achappa et al., (19), and Heravi-Karimooi et al., (33, 35). This indicates a meaningful relationship between education and misbehavior. However, the studies by Morowati et al., (21), Gil et al., (36), Manoochehri et al., (22), Saatlou et al., (37), Heravi Karimooi et al., (38), and Keyqobadi et al., (24), did not observe any significant relationship between misbehavior and education level.

In the present study, apart from emotional neglect, we witnessed a significant relationship between marital status and misbehavior and its types in the elderly. This result is consistent with the studies conducted by Karimi et al., (34), and Papi et al., (16), on older adults; the participants in the mentioned studies mentioned that their spouses had died and they experienced elder abuse more than other older adults. While there was no significant difference between single and married people in terms of



harassment in the study by Saatlou et al., (38), the average harassment rate in single older adults was higher than that of married ones. In the study by Manoochehri et al., (22), there was no significant relationship between marital status and the prevalence of misbehavior. This could be due to the difference in the cultural origins and social structure of the participants.

Based on the findings of the present study, there was a significant relationship between the residence place and misbehavior, so that the prevalence of misbehavior in the elderly living in the city was higher than that in the elderly living in the village. In the studies by Cadmus et al., (39) and Nassiri et al., (25), the elderly living in the city suffered more from the risk of abuse than the elderly living in the village, which is consistent with the results of our study. This may be due to family workload, psychological pressures, and problems of urban life. Life in cities flows faster than in villages. An older adult with a low speed of moving and adapting and communicating skills experiences a higher rate of misbehavior in cities. In the study by Borji et al., although the overall prevalence of misbehavior was higher in the elderly living in rural areas, there was no significant difference in this regard (40).

Our results showed a significant relationship between misbehavior and the perceived economic status of the elderly. According to the current economic conditions in Iran, many people do not have enough income for their living expenses; this issue has created problems and tension in people's relationships. Meanwhile, it has caused misbehavior towards the elderly with a weaker economic status. This issue is consistent with the exchange theory because some people may expect financial support from the elderly. In contrast, the elderly who are financially weak do not have such ability and are exposed to more misbehavior.

Hosseini et al., (23) showed that neglect, rejection of the elderly, and financial misconduct had a significant relationship with income. The study by Haghighatian et al., also showed a significant relationship between the socioeconomic status of the family and the abuse rate of the elderly (32). The results of these studies are inconsistent with those reported by Belvis et al., and Lopes et al. (41, 42).

The results of several studies indicated a significant relationship between age and all cases of elder abuse (22, 40, 43). In some studies, a higher age was associated with a higher rate of elder abuse (12, 35, 37). But in another study, it was stated that suffering from a chronic disease can aggravate elder abuse; so, there was a significant relationship between the disease and elder abuse (44).

The awareness among the European elderly about regarding the examples of elder abuse and the existence of legal protections in this regard has caused them to be less exposed to misbehavior (45). In Iran, despite the religious beliefs, values, and culture of honoring the elderly, the life form and modernity have influenced the relationships between family members, and the care of the elderly has received less attention in the last few decades. The lack of accurate statistics and the lack of expression of many cases of elder abuse by the elderly

can be another reason for the difference between the results of some studies and the present study.

## Conclusion

The present study showed that more than half of the elderly were subjected to elder abuse. The most common type of misbehavior experienced by the elderly was psychological abuse. Likewise, perceived economic status, place of residence, marital status, and education level were among the factors affecting elder abuse. Such findings highlight the need for continuous and principled treatment of this social and health problem. Clarifying this phenomenon from its various aspects should be one of the primary priorities in this regard. This is possible only by adopting a comprehensive approach and requires the participation and cooperation of all organizations involved in social and health affairs, experts and specialists in social welfare, doctors, nurses, social workers, psychologists, and social members. Accordingly, it seems essential to pay special attention to preventing elder abuse among vulnerable older adults with cognitive problems and those reliant on others, living in homes and care centers. This physical and mental health problems of older adults make them more vulnerable.

This study was conducted in an urban area. So, it is not possible to generalize the results to other areas of the country. Disseminating information about the awareness of various social programs that target the elderly is necessary to reduce abusive behaviors. Further studies with more diverse and larger sample sizes are required to identify the factors affecting elder abuse.

## Study limitations

The present study was conducted only in one of the urban areas of the country, and it is not possible to generalize the results of this study to other areas of the country, both deprived and privileged.

## Conflict of interests

The authors declared no conflict of interest.

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## Authors' contributions

Zhale Zandieh, Shahab Papi; conceived of the presented idea.

Methodology: Nasibeh Zanjari;

Investigation, Writing – original draft, and Writing – review & editing: All authors;

Data collection, Samad Akbari, Amir Mohamad Moghadasi  
 Data analysis: Mahshid Foroughan  
 Funding acquisition and Resources: Zhale Zandieh  
 All authors have an equal share in this study, have read the manuscript, approved the final version and agreed to be accountable for all aspects of the work.

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