

## **Research Paper**

# Prevalence of Elder Abuse in Iran: A Systematic Review and Meta Analysis

#### \*Maziyar Molaei1, Korosh Etemad2, Parisa Taheri Tanjani3

- 1. Department of Epidemiology, School of Health, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
- 2. Environmental and Occupational Hazards Control Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
- 3. Department of Internal Medicine, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

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#### **ABSTRACT**

Objectives Abuse of older people is a major issue in societies that can reduce self-confidence, generate feelings of hopelessness and apathy, and cause psychological disability in the elderly. The purpose of this study is to determine the prevalence of elder abuse in Iran.

Methods & Materials This study is a systematic review and meta-analysis, in which all articles about elderly abuse in Iran since 2005-2014 were searched using online databases such as MEDLINE, Google Scholar, SID, Web of Science, and Magiran. Their data were collected and analyzed using the Comprehensive Meta-Analysis (V 2.0, Biostat) software.

Results The highest prevalence (87.8%) of elder abuse was found in Tehran (Manochehry et al, 2007), and the lowest prevalence (17.1%) was found in Shahrekord (Hoseinei et al, 2014). The overall elder abuse prevalence in Iran was 56.4% with confidence interval 95% (35.1-75.5%).

Conclusion The overall elder abuse prevalence in Iran is much more than that reported by foreign studies. This difference could be related to small sample size and culture variety in the various communities. The prevalence of elder abuse in Iran is much more than that in the world.

### **Keywords:**

Elderly Maltreatment, Prevalence, Meta-analysis, Iran

#### **Extended Abstract**

## 1. Objectives

ith the advancement of medical science, improvement in nutrition quality, and prevention of many diseases over the past few decades, the length of human life has

increased. Currently, a significant portion of the population of many countries constitutes the elderly. But, according to some sociologists and health professionals, societies are increasingly facing elderly maltreatment, which includes physical, sexual, psychological and emotional abuse; negligence; abandonment; and financial exploitation [1]. In Iran, according to the letter of approval of the Cabinet of Ministers No. 3478C527330 on 04.14.2004 concerning taking necessary measures to prevent the use of violence against the elderly in the family and society, no steps have been yet taken to determine the extent of this problem [2]. Therefore, the purpose of this study is integrating different studies conducted in Iran and achieving a common outcome from the breadth of the problem, i.e., the general prevalence of elderly maltreatment.

#### 2. Methods & Materials

This study was conducted using systematic review and meta-analysis in which 55 articles concerning elderly maltreatment in Iran from 2005 to 2015 in SID, Google scholar, Magiran, Iranmedex, Pubmed were gathered. Words such as elderly maltreatment or "mistreatment"

\* Corresponding Author:

Maziyar Molaei, MSc.

Address: Department of Epidemiology, School of Health, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

Tel: +98 (916) 5999513

E-mail: maziyarmollaea@yahoo.com



or "neglect" and the "prevalence" were considered as keywords for searching articles. Inclusion criteria for the study were articles that discuss the prevalence of the elderly maltreatment, studies on the prevalence of elderly maltreatment in people aged 60-65 or older than 65, studies in Persian or English, studies used cross-sectional method, articles that had the same definition of the elderly maltreatment, articles conducted from 2005 to 2015, as well as articles that earn at least 20% of the score of the STROBE checklist. For each study, the following information was extracted separately: name of the first author, year of study, year of publication, place of research, type of target population, type of study, total target population, and the overall prevalence of each study.

Ten articles related to the topic were selected. In the next step, these articles were evaluated by the STROBE checklist and then entered in the meta-analysis phase. Some articles did not consider a general prevalence and some did not consider all aspects of the prevalence; hence, fewer articles were entered into the meta-analysis. Analysis was done using the Comprehensive Meta-Analysis (V. 2, Biostat) software. The value of the index in each study and the estimated overall estimate (prevalence) were obtained with random model or fixed model with 95% confidence interval and a significant level of 0.05%, and they are displayed using the FORST PLOT accumulation chart. Heterogeneity between studies was examined using I2 test, and since the number of articles is less than 10, propagation does not apply and its charts are not drawn. This article is approved by the Ethics Committee of Shahid Beheshti University of Medical Sciences of Tehran.

## 3. Results

Total number of participants among all the articles entered into the meta-analysis was 3436. All studies were

conducted on both genders. Information on the prevalence of elderly maltreatment in each article were obtained through face-to-face interviews and completed questionnaires. Since the data collection method was the same for all articles, all articles have the same definition of elderly maltreatment and had various aspects. Sampling was also carried out randomly, indicating that these differences in prevalence rates seem to be real. As seen in Table 1, the most common temporal prevalence was maltreatment with the elderly (87.8%) in the study by Manouchehri et al. [3], which was conducted in 2008 on a population of over 60 years old people in Tehran parks, and the least one was related to the study by Hosseini et al. (17.1%) in 2015 in Shahrekord [9].

With a simple review, it seems that among the various aspects of elderly maltreatment, emotional abuse is the most frequent type of maltreatment and its value ranges from 9.6% [23] to 84% [7]. Other aspects of the elderly maltreatment also vary in various studies with highly extensive prevalence rates. The prevalence of physical abuse ranges from 2.8% [4] to 35.9% [9], financial malpractice is 5.8% [23] to 40% [7], and psychological misconduct is 12.4% [10] to 59.8% [11]. The prevalence rate of neglecting is between 4.5% [9] and 68% [7] and rejection rate is between 3.7% [20] up to 23% [9].

To combine an indicator of the prevalence of elderly maltreatment in the studies investigated, a fixed model was used due to the heterogeneity of studies (inhomogeneity index I2=98.97 for the overall prevalence of elderly maltreatment, physical, financial, emotional, psychological abuse, rejection and negligence were 91.98, 98, 99, 96, 96 and 98, respectively). For this reason, the random model was used to combine the indices.

Using the Random Effect model, the overall rate of prevalence in Iran in this study was 56.4% with a con-

Table 1. Results of the frequency elderly maltreatment prevalence and its subcategories

Row	Index	Number of Articles	Frequency of Prevalence (%)	Confidence Interval of 95% (%)
1	General prevalence of elderly maltreatment	8	56.4	35.1–75.5
2	Physical	9	13.1	7.8–21.2
3	Financial	8	19.7	12.9–28.9
4	Emotional	7	30.7	51.1–15.8
5	Psychological	7	25.4	14.5–40.6
6	Exclusion	7	11.7	8–16.8
7	Negligence	8	25.1	13.6–41.7

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fidence interval of 95% (35.1-75.5). In this model, the highest prevalence of the type of elderly maltreatment in Iran was related to emotional abuse (30.7%), followed by mental ill-treatment (25.45%). Temporal prevalences of other aspects of elderly maltreatment including physical and financial misconduct, negligence, and exclusion were 13.1%, 19.7%, 25.1%, and 11.7%, respectively (Table 1).

#### 4. Conclusion

The prevalence of maltreatment towards the elderly in Iran is more than that in the world, and perhaps the high prevalence of the maltreatment cannot be attributed only to the deterioration of this phenomenon. This is because it is one of the social problems which are undoubtedly influenced by various factors. Since the problem of maltreatment of the elderly addressed in the global community, especially in our society, is a new and unknown phenomenon and even we are sometimes faced with resistance in this area in form of denying or disregarding this phenomenon, therefore, conducting this study, expressing the extent of the problem and confirming the high prevalence of maltreatment in Iran, a turning point can be reached for further investigation and research concerning the elderly maltreatment and the various aspects of it including epidemiology, related factors, risk factors, prevention methods and intervention and so on. This research can act as a foundation for the next research. It is noteworthy that there are certainly more cases of maltreatment which have not been mentioned for various reasons and the items mentioned are just the tip of the iceberg as many cases remained to be investigated.

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## **Conflict of Interest**

All authors certify that this manuscript has neither been published in whole nor in part nor being considered for publication elsewhere. The authors have no conflicts of interest to declare.