

Original article

## Prevalence of elderly abuse and its associated risk factors in Anakaputhur, Chengalpattu district: A cross-sectional study

Gayathri Baskaran\*<sup>1</sup>, Stephen.T<sup>2</sup>, Hariharan.S<sup>3</sup>, Subhashini Viswanath<sup>4</sup>

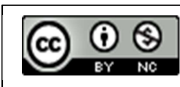
<sup>1</sup> Post Graduate, Department of Community Medicine, Sree Balaji Medical college and Hospital, Bharath Institute of Higher Education and Research, Chennai, Tamil Nadu, India.

<sup>2</sup> Professor, Department of Community Medicine, Sree Balaji Medical college and Hospital, Bharath Institute of Higher Education and Research Chennai, Tamil Nadu, India.

<sup>3</sup> Associate Professor, Department of Community Medicine, Sree Balaji Medical college and Hospital, Bharath Institute of Higher Education and Research Chennai, Tamil Nadu, India.

<sup>4</sup> Post Graduate, Department of Community Medicine, Sree Balaji Medical college and Hospital, Bharath Institute of Higher Education and Research, Chennai, Tamil Nadu, India.

Corresponding author: Dr. Gayathri Baskaran



### ABSTRACT:

**BACKGROUND:** Elder abuse refers to any act causing harm or distress to an elderly person in a relationship. This can include physical, sexual, psychological, or emotional abuse. About one in six people aged 60 and above report experiencing such abuse. Cases have increased post-COVID. This study aims to estimate the prevalence of elder abuse in Anakaputhur, Chengalpattu district, and assess the associated risk factors.

**METHODOLOGY:** Cross sectional study was done among 294 elderly population 60 years and above. Systematic random sampling was employed. Socio-demographic data and validated questionnaire to assess the elderly abuse using Vulnerability to Abuse Screening Scale (VASS). Data analyzed using SPSS version 22.

**RESULTS:** The study included 294 participants. Among them, 231 (78.6%) were aged above 70 years, 150 (51%) were female, 114 (38.8%) were illiterate, and 204 (69.4%) lived in nuclear families. These groups showed a higher probability of experiencing abuse. The overall prevalence of elder abuse was 30.6%. These demographic factors were statistically significant in relation to elder abuse.

**CONCLUSION:** Elder abuse is common in urban Chennai and is underreported. Appropriate interventions are required to ameliorate the problem.

**KEYWORDS:** Geriatrics, Violence, Suburban, Neglect, Mistreatment.

### Introduction:

In the post-COVID era, India became the world's most populous country, surpassing China. (1). The proportion of the elderly population over 60 years is approximately 10% of the total population, compared to 8.6% in the decade before. This indicates that the population is ageing faster (2). India is becoming a more of grey nation as a result of its tremendous population growth. Based on the National Census of India, the percentage of people aged 60 and beyond was 7.7% in 2001, and 10% in 2023. It is estimated that the percentage of elderly will rise to almost 19% by the year 2050 (3). Goal 3 of the 17 Sustainable Development Goals is to "Ensure healthy lives and promote well-being for all at all ages, which includes elderly people" (4).

The term "Elderly abuse" refers to intentional conduct that causes damage or hurt an older adult at danger of harm. An elderly is defined as one who is sixty years or older (5). Among the elderly the classification will be the

very old or oldest old (80 years and above), the middle-old (70–79 years) and the young old (60–69 years) (6) is referred to as the caregiver's conduct or missed opportunity, which has an impact on the person in concern. There are five different types of elder abuse namely- Physical abuse, psychological abuse or emotional abuse, financial abuse, Sexual abuse, Neglect. Intentional use of assault to cause suffering, impairment, or damage to an older person is considered physical abuse of that person. Emotional or psychological abuse includes shouting, isolating the elderly, harassing, frightening, and making verbal threats of violence. Intentional neglect occurs when a carer fails to provide the senior citizen with the care they need. Financial exploitation includes misusing or refusing to give up an older adult's resources (7). Abuse of elderly is one of the serious public health problems arising as a global issue around the world in recent times. Elderly abuse should be focused as one of the major public health concerns in the

modern world. About one in six people who are 60 years or older said they have experienced abuse in a communal setting in the past year(8). Across the globe the prevalence of elderly abuse is 15.7%(8).

In India, study done by Mawar S. et al in Northern states showed the overall prevalence of elder abuse is 24.3%(9) and overall prevalence was 9.31% in a study done by Anku Moni Saikia et al(10). Due to their advanced age, people frequently experience health issues that could render them emotionally and financially reliant. Since everyone is working these days, the elderly people at home may also feel neglected.

The theme for international day older persons for 2023 was Fulfilling the Promises of the Universal Declaration of Human Rights for Older Persons: Across Generation, which combats their dignity and privacy(11) And every year exclusively there is a day to create awareness on elderly abuse and the theme for the year 2023 was to Address the Gender-Based Violence (GBV) in Older Age - Policy, Law and Evidence-based Responses(12). The organizations constantly focus on health and livelihood of elders in order to have better awareness on how older citizens should be treated.

The elderly population is mostly economically reliant and often ignored, which contributes to the prevalence of elder abuse. Even if the prevalence of the condition is underreported, the rates are nonetheless crucial. Therefore, younger people should take responsibility when it comes to showing respect and caressing for the

elderly(13). In context of this problem, the present study was aimed to estimate the prevalence of elderly abuse and its associated risk factors in Anakaputhur -suburban population in Chengalpattu district.

#### Methodology:

1. Study Design: Community based cross-sectional study
2. Study Population: The study population includes those who are aged 60 years and above in suburban population.
3. Study Area and Period: This study was done in the urban private field practice area of Anakaputhur, attached to a tertiary medical college, between October-December 2023.
4. Sample size: According to Mawar S, Koul P, Das S, et al. in 2018 found that 24.3% of elderly abuse cases were reported.(9)

Using this as prevalence (p) and applying the formula  $n = Z^2pq/d^2$ , with  $q = 75.7\%$  ( $100-p$ ) and absolute precision ( $d$ ) = 5%, the sample size was calculated to be 295.

5. Sampling method: As per the data available in the urban health centre in Anakaputhur, there were four wards in the respective municipality. In the field practice area In the field practice area, Totally there were 4100 elderly irrespective of the gender. Those people were enlisted and using **systemic random sampling**, 294 participants were chosen keeping the sampling interval as 13.

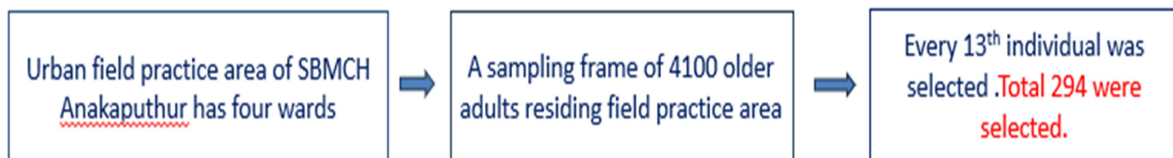


Figure 1 shows how participants were chosen for the study.

6. Inclusion and Exclusion Criteria: The study included elders aged 60 years and above and those who reside in that area. Those mentally disabled individuals were excluded from the study.

7. Ethics Approval and Consent to Participate: The protocol was approved by the IHEC Institutional Human Ethics Committee. Informed consent was obtained from the participants in their own regional language.

8. Data collection method:

In this study the socio demographic data was collected using face- face interview and Pre validated questionnaire to assess the elderly abuse VASS(Vulnerability to Abuse Screening Scale) was used.(14) It consists of 12 questions. Each carries one mark, those who scores more than 3 will be considered as abused.

#### Data analysis:

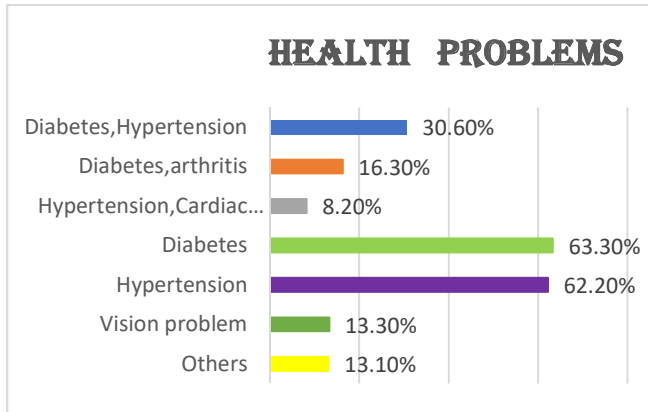
Data was entered in Microsoft Excel and analysed by using SPSS version 22.

Logistic regression Analysis was used to eliminate the confounders and estimate the elderly abuse.

#### Results:

##### Fig1: Illustrates the health problems faced by elderly population:

(Fig 1) Of the 294 study participants, the majority (63.30%) had diabetes and 63.20% had hypertension. Few of them had co-occurring conditions including heart disorders or arthritis. A person with poor physical health condition is more likely to be financially dependent on family members and also more likely to experience financial abuse(15).

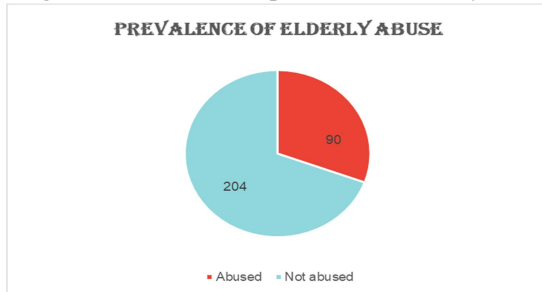


**Table 1: Socio-demographic data of the study participants**

S.no	Variables	Frequency (n)	Percentage (%)
1	<b>Age</b>		
	More than 70 years	231	<b>78.6</b>
	60-70 years	63	21.4
2	<b>Gender</b>		
	Male	144	49
	Female	150	<b>51</b>
3	<b>Marital status</b>		
	Single	9	3.1
	Married	222	<b>75.5</b>
	Divorce	3	1
	Widow	48	16.3
	Widower	12	4.1
4	<b>Education</b>		
	Illiterate	114	<b>38.8</b>
	Up to Primary	93	31.6
	Primary to secondary	24	8.2
	Above Secondary	63	21.4
5	<b>Job status</b>		
	Retired	81	27.6
	Employed	57	19.4
	Business	18	6.1
	Housewife	93	<b>31.6</b>
	Unemployed	45	15.3
6	<b>Socioeconomic Status</b>		
	Upper class	99	<b>33.7</b>
	Upper middle class	66	22.5
	Middle class	60	20.4
	Lower middle class	18	6.1
	Lower class	51	17.3
7	<b>Type of family</b>		
	Nuclear family	204	<b>69.4</b>
	Joint family	57	19.4
	Three generation family	33	11.2

1, demonstrates that 78.6% (231) of the elderly population was above 70 years old. Fifty-one percent (150) of the study participants were female. 38.8% (114) were illiterate and the majority of them—75.5% (222) were married. Based on the Modified B.G. Prasad classification, about 33.7% (99) belonged to the upper class in the socioeconomic status and 31.6% (93) were housewives. There were about (204) 69.4%, nuclear families.

**Fig 2: Demonstrates the prevalence of elderly abuse**



According to Fig. 2, Around 30.6% of the senior citizen population experienced either financial, psychological, physical, or neglect type of abuse.

**Table 2: Association between elderly abuse and study variables**

S.NO	SOCIO DEMOGRAPHIC DATA	ELDERLY ABUSE		UNADJUSTED OR(95% CI)	P VALUE
		Yes N=90	No N=204		
1	<b>Age</b>				
	More than 70 years	60	171	0.38 (0.21-0.68)	<b>0.001*</b>
	60-70 years	30	33		
2	<b>Gender</b>			2.062 (1.23-3.43)	<b>0.005*</b>
	Female	57	93		
	Male	33	111		
3	<b>Marital status</b>			3.11 (1.78-5.41)	<b>0.001*</b>
	Unmarried /Divorcee/Widow	36	36		
	Married	54	168		
4	<b>Education</b>			0.57 (0.33-0.97)	<b>0.004*</b>
	Illiterate	21	93		
	Literate	69	111		
5	<b>Job status</b>			-	0.813
	Unemployed	42	96		
	Pensioner	24	57		
	Employed	24	51		
6	<b>Type of family</b>			0.54 (0.46-0.27)	<b>0.021*</b>
	Nuclear family	54	150		
	Extended family	36	54		

7	<b>Socioeconomic Status</b>				
	Upper class/Upper middle class	52	113	1.020 (0.66-1.81)	0.704
	Middle class/Lower middle class/Lower class	38	91		

\*Represents p value of <0.05, which is statistically significant  
The relationship between the study variables and elder abuse is displayed in Table 2.

**Table 3 : Logistic Regression Analysis between elderly abuse and related variables.**

S. N O	SOCIO DEMOGRAPHIC DATA	Elderly abuse		Adjusted OR(95% CI)	P- Value
		Yes N=90	No N=204		
1	<b>Age</b>				
	More than 70 years	60	171	4.07 (2.18-7.61)	<b>0.000*</b>
	60-70 years	30	33		
2	<b>Gender</b>				
	Female	57	93	2.15 (1.18-3.91)	<b>0.011*</b>
	Male	33	111		
3	<b>Marital status</b>				
	Unmarried /Divorcee	36	36	1.303 (0.83-2.02)	0.239
	Married	54	168		
4	<b>Education</b>				
	Illiterate	21	93	0.432 (0.23-0.78)	<b>0.006*</b>
	Literate	69	111		
5	<b>Type of family</b>				
	Nuclear family	54	150	0.476 (0.26-0.85)	<b>0.014*</b>
	Extended family	36	54		

\* Represents p value of <0.05, which is statistically significant. Variables that were statistically significant in bivariate analysis were further analysed using Logistic Regression.

Above table 3 shows binary logistic regression analysis for identifying the predictors of elderly abuse after eliminating the confounding factors. It is observed that those elders who were aged more than 70 years and female are more likely to get abused and its said to be statistically significant with (OR of 4.07 and 2.15) respectively. Those who are literate and live in extended family are (43% and 47% respectively) more likely to get elderly abuse and its said to be statistically significant .

**Discussion:**

Elderly abuse is an important societal issue that greatly impact both public health and human rights. Abuse of any form to the elderly population by any means is a like causing harm or distress to them. This may lead to problems in relationship among family members where the trust of expectation is broken. In this debate, the prevalence and risk factors of elder abuse are analysed. Understanding the prevalence rates, demographic correlates, and contextual factors that impact elder abuse is the intent of this study.

Present study found that the prevalence of elderly abuse is 30.6%. In a study, done by Timalina et al among Nepalis shows that the overall elderly abuse is 35.90%(16). In a study done by Sembagamuthu Sembiah et al in rural area of West Bengal showed the prevalence of around 25.6%(17). In a study done by Jatin Chhaya et al all at Gujarat showed the prevalence of 28.57%(18). In a study done by Santhosh achappa et al showed that the prevalence of older abuse is 35.3%(19). The similarities and variations from the above studies is found in reporting elderly abuse may be due to many social and other common factors like age group, medical condition, and socioeconomic status of research participants. Cultural norms and attitudes regarding the elderly abuse could be having an impact on the reporting abuse. Variations in wealth, education, and access to services, enforcements of laws against elderly and general awareness regarding elderly abuse may also result in difference about reporting rate of abuse among elderly population. Future more studies done around the globe also reported abuse to be 55.2% in Yasuji(20), 75.4% in other part of the country (21) and 10% in Canadian longitudinal studies(22). These discrepancies in the prevalence of elderly abuse across different regions can be due to various societal and cultural variations among attitude to towards abuse of elderly. Countries with adequate awareness and existence of law and policies concerning about how to take care of elderly for their good well-being , socioeconomic factors, difference in demographic contexts and also in variations in system of health care and access to availability of support services may also affect the prevalence of abuse. Age, gender, marital status, education and type of family are the major demographic components which plays a pivotal role in contributing to abuse of the old aged individuals. Our research done on demographic factors also states these factors are significantly

associated with elderly abuse which are found to be statistically significant.

A study done on analysis of risk models also found similar results were age , gender and living arrangements were found to be risk factors for abuse(23). In a gerontological evaluation it was also found that few factors like age>85, gender and living arrangements were found to concordant to our study findings(24).

A community based study done Belagavi also reported similar findings were age >70, illiteracy (25). A study on social support found gender as an impact on elderly abuse but socio economic status did not find any significance (26). Many societies in the modern era experience similar stress due to growing urbanisation and the advent of globalisation These factors of stress include shifts in family structure, economic hardship, the stigma associated with elder abuse, cultural norms , having access to health services, and intervention initiatives. All these factors may contribute to these similar results.

In the present study it was found nuclear family are at higher risk of developing elderly abuse than elderly living in extended family. Older individuals living alone due to loss of spouse / any financial burden they subjected to stress of abuse both physically and mentally. Study done by David et al among elderly mistreatments stated pattern of living alone among elderly individuals was one of major risk factor identified this is consistent with our study finding(27). A national community study stated older people living in social isolation , lack of support and care any form of mental and physical health issues are been identified as risk factors(28). These risk factors are also concordant to our study findings.

In the current study almost more than half of the participants had diabetes and hypertension as a comorbidity affecting their physical health status. Few had vision problems which affects their daily living and the rest had cardiac issues which make them more dependent on the family or care giver to take care of them. But few studies done by Supa pengpid et al (29) , Abdelaal et al (30) and Mursal et al (31) identified knee and joint pain , incontinence, fracture , the risk of repeated falls , and other , emotional and sexual abuse also are important risk factors. These similarities and dissimilarities show that addressing these factors of risk is very important public health concern regarding elderly abuse. Addressing these issues can help to prevent the abuse before it can occur since it is widely associated with negative outcomes for health of the elderly.

**Conclusion:**

The elderly abuse is a major public health concern which is caused by many socio-demographic and health related factors contributing to abuse of elderly. The rates of abuse vary throughout demographics according to factors such as age, gender, family structure, and educational attainment. Health-related risk factors, such as chronic illnesses, mental and physical disabilities, and cognitive impairments, also play significant roles. Understanding these factors is essential to determining the scope and

nature of the problem. The existence of social support, cultural standards, and socioeconomic level are other factors that influence the likelihood and reporting of abuse. This emphasises the need for in-depth research to improve understanding and address the underlying

causes. By highlighting the variations and risk factors associated with elder abuse, we may gain a deeper understanding of this issue and work to establish more secure environments for older individuals, ensuring their wellbeing.

#### **Limitation and Recommendations:**

As the data was collected at their homes, participants might not fully express their feelings, and the subtypes of elder abuse couldn't be determined. Being a cross-sectional study, it only estimates elder abuse prevalence during a particular time. Raising awareness about self-care and socialization for seniors is essential and educating the younger generation on elder care. Elderly people should also have better access to existing benefits.

#### **REFERENCES:**

1. 01 [Internet]. Available from: <https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-no-153-india-overtakes-china-as-the-worlds-most-populous-country/>
2. Chandanshive P, Subba SH, Parida SP, Mishra S. Prevalence patterns and associated factors of elder abuse in an urban slum of eastern India. *BMC Geriatr.* 2022 Apr 11;22:317.
3. Ageing in the Twenty-First Century [Internet]. [cited 2024 May 27]. Available from: <https://www.unfpa.org/publications/ageing-twenty-first-century>
4. THE 17 GOALS | Sustainable Development [Internet]. [cited 2024 May 27]. Available from: <https://sdgs.un.org/goals>
5. CDC. Abuse of Older Persons. 2024 [cited 2024 May 23]. About Abuse of Older Persons. Available from: <https://www.cdc.gov/elder-abuse/about/index.html>
6. Policy of elderly [Internet]. Available from: [https://mospi.gov.in/sites/default/files/publication\\_reports/Elderly%20in%20India%202021.pdf](https://mospi.gov.in/sites/default/files/publication_reports/Elderly%20in%20India%202021.pdf)
7. Yon Y, Mikton CR, Gassoumis ZD, Wilber KH. Elder abuse prevalence in community settings: a systematic review and meta-analysis. *Lancet Glob Health.* 2017 Feb;5(2):e147–56.
8. Abuse of older people [Internet]. [cited 2024 Jun 3]. Available from: <https://www.who.int/health-topics/abuse-of-older-people>
9. Mawar S, Koul P, Das S, Gupta S. Association of physical problems and depression with elder abuse in an urban community of North India. *Indian J Community Med.* 2018;43(3):165.
10. Saikia AM, Mahanta N, Mahanta A, Deka AJ, Kakati A. Prevalence and Risk Factors of Abuse among Community Dwelling Elderly of Guwahati City, Assam. *Indian J Community Med Off Publ Indian Assoc Prev Soc Med.* 2015;40(4):279–81.
11. Nations U. United Nations. United Nations; [cited 2024 Jun 4]. International Day of Older Persons. Available from: <https://www.un.org/en/observances/older-persons-day>
12. Nations U. United Nations. United Nations; [cited 2024 Jun 4]. World Elder Abuse Awareness Day. Available from: <https://www.un.org/en/observances/elder-abuse-awareness-day>
13. Malik C, Khanna S, Jain Y, Jain R. Geriatric population in India: Demography, vulnerabilities, and healthcare challenges. *J Fam Med Prim Care.* 2021 Jan;10(1):72–6.
14. VULNERABILITY TO ABUSE SCREENING SCALE (VASS).
15. Fraga Dominguez S, Ozguler B, Storey JE, Rogers M. Elder Abuse Vulnerability and Risk Factors: Is Financial Abuse Different From Other Subtypes? *J Appl Gerontol.* 2022 Apr 1;41(4):928–39.
16. Timalisina KP. Prevalence and Patterns of Elderly Abuse in Family Environment: A Cross-Sectional Study of Hetauda Sub-Metropolitan City. *Int Res J MMC.* 2023 Jun 27;4(2):51–9.
17. Sembiah S, Dasgupta A, Taklikar CS, Paul B, Bandyopadhyay L, Burman J. Elder Abuse and Its Predictors: A Cross-Sectional Study in a Rural Area of West Bengal, Eastern Part of India. *Psychogeriatrics.* 2020;20(5):636–44.
18. CHHAYA-DIS [Internet]. Available from: [https://www.researchgate.net/publication/365581601\\_Estimation\\_of\\_elder\\_abuse\\_and\\_its\\_associated\\_factors\\_in\\_a\\_rural\\_area\\_of\\_Gujarat\\_A\\_community\\_based\\_cross\\_sectional\\_study](https://www.researchgate.net/publication/365581601_Estimation_of_elder_abuse_and_its_associated_factors_in_a_rural_area_of_Gujarat_A_community_based_cross_sectional_study)
19. Achappa S, Rao BAV, Holyachi S. Bringing elder abuse out of the shadows: a study from the old age homes of Davangere district, Karnataka, India. *Int J Community Med Public Health.* 2016;3(6):1617–22.
20. Prevalence of Elder Abuse and its Related Factors among Elderly Referring to Social Security Outpatient Clinic in Yasouj Iran - Elderly Health Journal [Internet]. [cited 2024 Jul 10]. Available from: <https://ehj.ssu.ac.ir/article-1-266-en.html>

21. DISS-Type [Internet]. Available from: The Prevalence of Abuse and risk factors associated with elder abuse. (2022). doi: 10.21203/rs.3.rs-1863036/v1
22. Burnes D, Pillemer K, Rosen T, Lachs MS, McDonald L. Elder abuse prevalence and risk factors: findings from the Canadian Longitudinal Study on Aging. *Nat Aging*. 2022 Sep;2(9):784–95.
23. Timalina K. Analysis of Influencing Risk Models of Elderly Abuse. *Int Res J MMC*. 2022 Mar 30;3:24–31.
24. Koga C, Hanazato M, Tsuji T, Suzuki N, Kondo K. Elder Abuse and Social Capital in Older Adults: The Japan Gerontological Evaluation Study. *Gerontology*. 2020;66(2):149–59.
25. Journal of the Scientific Society [Internet]. [cited 2024 Jul 10]. Available from: [https://journals.lww.com/jsci/fulltext/2022/49020/elder\\_abuse\\_in\\_rural\\_belagavi\\_a\\_community\\_based.14.aspx](https://journals.lww.com/jsci/fulltext/2022/49020/elder_abuse_in_rural_belagavi_a_community_based.14.aspx)
26. Olasupo MG, Olasupo MO, Fagbenro DA. Social Support, Socio Demographic Factors and Elder Abuse: A Quantitative Study. *Psychocentrum Rev*. 2020 Mar 27;2(1):1–12.
27. Burnes D, Hancock DW, Eckenrode J, Lachs MS, Pillemer K. Estimated Incidence and Factors Associated With Risk of Elder Mistreatment in New York State. *JAMA Netw Open*. 2021 Aug 2;4(8):e2117758.
28. Nyarko-Odoom A, Lisha NE, Yank V, Kotwal A, Balogun S, Huang AJ. Elder Mistreatment Experienced by Older Caregiving Adults: Results from a National Community-Based Sample. *J Gen Intern Med*. 2023 May;38(7):1709–16.
29. Pengpid S, Peltzer K. Elder abuse and health outcomes among community-dwelling older adults in India: results of a national survey in 2017-2018. *J Elder Abuse Negl*. 2021 Aug 8;33(4):327–41.
30. Baker M. Elder Mistreatment: Risk, Vulnerability, and Early Mortality. *J Am Psychiatr Nurses Assoc*. 2007 Dec 1;12:313–21.
31. Gardezi M, Moore HG, Rubin LE, Grauer JN. Predictors of Physical Abuse in Elder Patients With Fracture. *J Am Acad Orthop Surg Glob Res Rev*. 2022 Jul 1;6(7):e22.00144.