Prevalence and Predictors of Abuse in Elderly Patients with Depression at a Tertiary Care Centre in Saurashtra, India

V. K. Patel, D. S. Tiwari, V. R. Shah, M. G. Patel, H. H. Raja, D. S. Patel

ABSTRACT

Context: Elder abuse has devastating consequences such as poor quality of life, psychological distress and loss of property and security. Abuse of elderly patients with depression has not been adequately researched in India. Aims: To explore the prevalence and predictors of abuse and its relation to various sociodemographic variables in elderly patients with depression. Settings and Design: A cross-sectional, observational study carried out at a tertiary care centre in Jamnagar. Methods and Materials: In all, 100 elderly patients with depression, attending Out Patient Department of Psychiatry at Shree M. P. Shah Government Medical College and Guru Gobind Singh Hospital, Jamnagar, were selected using simple random sampling by lottery method. Actual Abuse Tool and Elder Abuse Suspection Index were used to detect abuse. Geriatric Depression Scale was used to assess depression, and Mini Mental State Examination was used to rule out dementia. Statistical Analysis: Descriptive statistics, Chi-square test, and binary logistic regression were used. Results: The prevalence of abuse was 24%. Among those who had experienced abuse, 50% had experienced psychological abuse, 17% had experienced neglect, 8% had experienced exploitation and 4% had experienced physical abuse. About 54% of patients with severe depression had experienced abuse. Daughters-in-law (54%) and sons (42%) were the most common perpetrators. Illiteracy and severe depression were found to be the predictors of abuse. Conclusion: Prevalence of abuse in elderly patients with depression is high. Severe depression and illiteracy are important predictors of experiencing abuse.

Key words: Abuse, elderly depression, predictors, prevalence

INTRODUCTION

Older adults (60 years and above) are the fastest growing segment of the population worldwide. Urbanisation, industrialisation, exposure to western lifestyle and a decrease in coresidence of adult children with elderly erode the family's caring ability for the elderly. Increased lifespan has resulted in higher chronic functional disabilities, creating a need for assistance to manage activities of daily living.\(^1\)
Mistreatment of older people – referred to as ‘elder abuse’ – was first described in British scientific journals in 1975 as the term ‘granny battering’. According to World Health Organization (WHO), ‘Elder abuse is defined as a single or repeated act or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person’. The above definition was developed by Action on Elder Abuse in the United Kingdom. Older people may be abused by family members, spouses, friends, visitors, home care workers or professionals. The negative attitude of perpetrators towards elderly and their interdependency are risk factors for abuse.

Elder abuse is divided into physical, psychological or emotional, financial or material, neglect and sexual abuse. Elder abuse has devastating consequences such as poor quality of life, psychological distress and loss of security and property. It is also associated with increased mortality and morbidity. A prospective, population-based study reported that abuse of older adults is associated with increased rates of hospitalisation. Elder abuse is a violation of human rights. Prevention of elder abuse and protection of elder people should, therefore, be key priorities.

Help Age India’s national survey (2013) and a community-based urban study from Chennai reported abuse in 23% and 14% of elderly, respectively. A comparative study between the psychogeriatric and internal ward in a mental hospital of Kromeriz, Czech Republic, reported 23.8% of elder abuse, and another cross-sectional study in a geriatric clinic of a medical college hospital in Bangalore reported 16% of elder abuse. On exploring database till date, no Indian study designed about abuse in elderly patients with depression was found; hence, this study would contribute towards filling this gap. This study was designed to explore the magnitude of the problem of abuse and its relation to various sociodemographic variables in patients with old age depression attending Psychiatry Out Patient Department (OPD) of Shree M. P. Shah Government Medical College (MPSGMC) and Guru Gobind Singh Hospital (GGH), Jamnagar.

MATERIALS AND METHODS

Study design
This was a 12-month cross-sectional hospital-based study conducted in the Department of Psychiatry of MPSGMC and GGH, Jamnagar, from May 2013 to April 2014. Patients attending OPD were screened for major depressive disorder (MDD).

On an average, 1200 elderly patients with depression per year are consulting psychiatry OPD for the past 3 years. A sample of 100 participants of the 1200 elderly patients with depression was selected through simple random sampling by lottery method. According to the study protocol, participants were explained the objectives, and their written informed consent was obtained. No patient denied consent for our study.

Subjects
A total of 100 elderly patients with MDD age 60 years and above were recruited. Patients with acute medical/surgical emergency conditions, major neurocognitive disorder (e.g., dementia), severe difficulties in vision, hearing or speech, psychiatric morbidity other than depression and those who refused to participate were excluded. The study was approved by the Institutional Ethical Committee Shree M. P. Shah Government Medical College and Guru Gobind Singh Hospital, Jamnagar.

Screening tools
Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5) diagnostic criteria were used for diagnosis of MDD. Subjects were administered Geriatric Depression Scale – short form (GDS-SF) and the scores were used to quantify depression. GDS scores of 5–8 indicate mild, 9–11 moderate and 12–15 severe depression. GDS can be used in healthy, medically ill and mild to moderately cognitively impaired adults. The GDS-SF is a subset of 15 questions from the original GDS-LF (long form) with the highest correlation with depressive symptoms. The GDS was found to have 92% sensitivity and 89% specificity. Mini Mental State Examination was used to rule out cognitive deficits. The cut-off score for inclusion in the study was 25. Elder Abuse Suspicion Index (EASI) was developed to raise a doctor’s suspicion for referral and evaluation of elder abuse. The EASI has a sensitivity and specificity of 0.47 and 0.75, respectively. All six questions should be asked to the patient, and a response of ‘yes’ to any question from two to six numbers establishes concern to confirm abuse. The first five questions of EASI have shown cultural and geographical acceptance for the detection of elder abuse by WHO. Actual Abuse Tool was used to confirm abuse in suspected participants screened by EASI. The Actual Abuse Tool provides a list of the major forms of abuse and violence along with examples of physical abuse, psychological abuse, neglect and exploitation. A single check indicates the perceived presence of elder abuse.

Assessment
The participants were interviewed and a semi-structured proforma was used to record information about demographic characteristics, abuse experienced by the elderly and the perpetrators of abuse. A senior psychiatrist assessed and diagnosed depression clinically using DSM-5 diagnostic criteria. The severity of
depression was assessed using GDS score and those reporting elder abuse was assessed by EASI and Actual Abuse Tool.

**Statistical analysis**

Collected data were subjected to appropriate descriptive statistics using frequencies, and percentages of different variables were calculated. Chi-square test was used for qualitative data, and a $P$ value of $<0.05$ was considered statistically significant. Binary logistic regression analysis was used to calculate the odds ratio. Statistical Package for the Social Sciences (SPSS) version 15 was applied to analyse the data.

**RESULTS**

**Sociodemographic details**

In the study population, 74% of the respondents belonged to young-old (60–69 years) age group, 22% were old-old (70–79 years) and 4% came under the oldest old category (80 years and above). About 42% were male, and 58% were female. About 80% of patients were Hindu, and the remaining were Muslims. Around 23% of the elderly were illiterate, and 77% were literate. Approximately 28% of patients were employed, 40% were homemakers and 32% were unemployed. About 48% patients came from rural population and 52% from urban. Around 74% of patients were married, and 26% had lost their spouse (widowed/widower). Around 47% of patients were living in a nuclear family and 53% in a joint family; 54% of patients belonged to socioeconomic class III, 36% to class IV, 8% to class II and 2% to class V.

**Abuse**

The experience of abuse was reported by 24% of the participants in our study. Participants reported the following types of abuse: 50% psychological, 17% neglect (by self or others), 8% exploitation, 4% physical and 21% mixed (both psychological and by self or others) abuse. The perpetrators of abuse were daughter-in-law (54%), son (42%) and others (4%). Participants reported 16.6% psychological abuse, 12.5% neglect, 20.8% both psychological and neglect and 4% exploitation by daughter-in-law. They reported 29% psychological, 4% neglect, 4% exploitation and 4% physical abuse by son. They also reported 4% of psychological abuse by the other perpetrators.

There was a statistically significant association between elder abuse and family type, educational status, marital status and depression on univariate analysis [Tables 1 and 2]. Distribution of type of abuse according to the severity of depression is depicted in Table 2. Independent variables showing statistically significant association using Chi-square test were selected for

**Table 1: Distribution of abuse in sociodemographic variables**

| Sociodemographic variables | Abuse reported $n=24$ (%) | No abuse reported $n=76$ (%) | Chi-square ($\chi^2$) | $P$ |
|---------------------------|--------------------------|-------------------------------|----------------------|-----|
| **Age group (years)**     |                          |                               |                      |     |
| 60-69                     | 16 (66.66)               | 58 (76.31)                   | 1.841                | 0.398 |
| 70-79                     | 6 (25)                   | 16 (21.05)                   |                      |     |
| 80 and above              | 2 (8.33)                 | 2 (2.63)                     |                      |     |
| **Gender**                |                          |                               |                      |     |
| Male                      | 7 (29.16)                | 35 (46.05)                   | 2.135                | 0.144 |
| Female                    | 17 (70.83)               | 41 (53.94)                   |                      |     |
| **Religion**              |                          |                               |                      |     |
| Hindu                     | 20 (83.33)               | 60 (78.94)                   | 0.219                | 0.640 |
| Muslim                    | 4 (16.66)                | 16 (21.05)                   |                      |     |
| **Education**             |                          |                               |                      |     |
| Illiterate                | 15 (62.5)                | 8 (10.52)                    | 27.821               | 0.001 |
| Literate                  | 9 (37.5)                 | 68 (89.48)                   |                      |     |
| **Employment status**     |                          |                               |                      |     |
| Unemployed                | 9 (37.5)                 | 23 (30.26)                   | 0.900                | 0.638 |
| Employed                  | 5 (20.83)                | 23 (30.26)                   |                      |     |
| Housewife                 | 10 (41.6)                | 30 (39.47)                   |                      |     |
| **Residence**             |                          |                               |                      |     |
| Rural                     | 9 (37.5)                 | 39 (51.31)                   | 1.395                | 0.238 |
| Urban                     | 15 (62.5)                | 37 (48.68)                   |                      |     |
| **Marital status**        |                          |                               |                      |     |
| Married                   | 10 (41.6)                | 64 (84.21)                   | 18.713               | 0.0001 |
| Widow/widower             | 14 (58.33)               | 12 (15.78)                   |                      |     |
| **Type of family**        |                          |                               |                      |     |
| Joint family              | 18 (75)                  | 35 (46.05)                   | 6.136                | 0.013 |
| Nuclear                   | 6 (25)                   | 41 (53.94)                   |                      |     |
further analysis using binary regression. Illiteracy and severe depression emerged as factors statistically significantly associated with abuse [Table 3].

**DISCUSSION**

In this study, 24% of elderly patients with depression had an experience of abuse. The most commonly reported abuse was psychological type, followed by neglect. In this study, a few participants reported physical abuse and no one reported sexual abuse. It was not possible to compare findings of this study with other studies due to a lack of published research available in elderly patients with major depression. Therefore, data from a few hospitals and community-based studies are discussed.

Studies conducted in patients attending a geriatric clinic of Bangalore, India, and senior in-patients with psychiatric morbidity of Czech Republic found 23.8% and 16% prevalence of elder abuse, respectively.[15,16] Large surveys in India, Europe and China reported elderly abuse rates of 23%, 29.3%, 36.2%, respectively.[14,25,26] The studies conducted in communities of urban Chennai and rural Bangalore showed 14% and 40.94% prevalence of elder abuse, respectively.[14,27] Vida et al. and Dong et al. reported 16% and 35.2% prevalence of abuse in elderly, respectively.[28,29] The differences in the prevalence rate of abuse reflect a variation across the cultural populations and a possible difference in defining and measuring of abuse.

Most of the studies from India and abroad show that psychological abuse and neglect are more common compared with the other types of abuse in the elderly.[1,14,25-27] In our study, no patient reported sexual abuse. A review on sexual violence among elderly people found 0.2%–1.2% prevalence of sexual abuse.[30] No sexual abuse was found in a comparative study on perceived abuse and social neglect among rural and urban geriatric population of India, which is consistent with this study.[31] The reason might be that the elderly are less inclined to talk about sexual abuse which may be due to feeling of shame, confidentiality of family matter and fear of further abuse.

The results of this study suggest that, amongst elderly with depression, groups significantly more likely to experience abuse include widowed women, housewives, illiterate, unemployed, and widowed. Many other studies have reported more abuse in widowed women with lower education, economic dependence, poor social support and longer life.[9,26,28,32,34] According to WHO, childless and widowed women are the most affected by elder abuse.[35]

The illiterate and unemployed patients experienced more abuse in this study. The elderly educated below primary education reported more abuse compared with those with higher education in the Indian studies.[32,36] Wu et al. and Rufus and Beulah reported that elderly with 5 years or less of school education and economically dependent were more vulnerable to abuse.[26,27] In this study, patients living in joint and low-income families had more experience of abuse. This is similar to Naughton et al. reporting a higher prevalence of abuse in complex households, that is, sharing with adult children or another extended family.[30] In addition, WHO reported in the ‘Missing Voices’ that elder abuse affects all the social classes in which economically poor and older people suffer the most.[33]

The main perpetrator of abuse was the daughter-in-law, followed closely by the son, and the more common types of abuse were psychological and neglect in this study. Daughters-in-law have increased likelihood of being the perpetrators as they are entrusted with primary care giving and remain in contact for longer

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**Table 2: Distribution of abuse and its types with the severity of depression**

| Elderly depression | Elder abuse (χ²=19.041, P<0.001) | Types of abuse (χ² Yates=28.377, P=0.002) n=24 (%) |
|--------------------|---------------------------------|--------------------------------------------------|
|                    | Reported n=24(%) Not reported n=24(%) | Physical/exploitation Psychological Neglect Psychological + neglect |
| Mild to moderate    | 11 (45.8%) 67 (88.1%)           | 2 (8.3%) 5 (20.8%) 3 (12.5%) 1 (4.1%) |
| Severe             | 13 (54.1%) 9 (11.8%)            | 1 (4.1%) 7 (29.1%) 1 (4.1%) 4 (16.6%) |
| Total              | 24 (100%) 76 (100%)            | 3 (12.5%) 12 (50%) 4 (16.6%) 5 (20.8%) |

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**Table 3: Binary logistic regression analysis for the factors related to elder abuse**

| Variables | Abuse reported n=24 (%) | Odds ratio | 95% CI | P |
|-----------|-------------------------|------------|--------|---|
| Education |                         |            |        |   |
| Illiterate| 15 (62.5)               | 5.56       | 1.426-21.698 | 0.013 |
| Literate  | 9 (37.5)                | 1.0        |        |   |
| Marital status |                      |            |        |   |
| Widow/widower | 14 (58.33)             | 3.37       | 0.850-13.430 | 0.084 |
| Married    | 10 (41.66)              | 1.0        |        |   |
| Family type |                      |            |        |   |
| Joint family | 18 (75)                | 2.54       | 0.720-8.982 | 0.147 |
| Nuclear family | 6 (25)                | 1.0        |        |   |
| Depression |                        |            |        |   |
| Severe     | 13 (54.16)              | 6.780      | 1.796-25.600 | 0.005 |
| Mild to moderate | 11 (45.83) | 1.0 |        |   |

CI - Confidence interval
hours. This finding is consistent with rural and urban community-based studies in India.\[14,27\]

Elderly patients with severe depression significantly reported abuse, and especially psychological type of abuse in this study. Higher abuse is reported in severe depression and this could be due to stigma, discrimination and perception of ill health. Increased burden of care in severe depression is another likely possibility. This finding of higher prevalence of abuse is supported by Luzny and Jurickova in the seniors with psychiatric morbidity.\[15\] In addition, a hospital-based study from India reported that elder abuse was positively and significantly associated with depressive symptoms.\[16\] The feeling of dissatisfaction with life, often being bored, feeling helpless and feeling worthless were associated with an increased risk of elder abuse.\[17\] Depression was the consistent risk factor for psychological and neglect subtypes of elder mistreatment.\[18\] Dong et al. and Cisler et al. reported that elder mistreatment was significantly correlated with loneliness, lower levels of social support, higher levels of depression and self-reported emotional symptoms.\[19,24,34,39\] Also, Burnett et al. reported a statistically significant difference in the distribution of abnormal GDS-SF scores between the self-neglect and the control group.\[40\] Strasser et al. reported that the depressed respondents were six times more likely to have a positive elder mistreatment screen than their nondepressed peers.\[41\] Cooper et al. reported that severity of cognitive impairment, depression and delusions were the predictors of elder abuse.\[42\] The studies from India and other countries have clearly found an association between elder abuse and depression or depressive symptoms which can have an impact on diagnosis, outcome and treatment.

This study emphasises the role of abuse in elderly patients with depression. Limitations of this study are that it is a cross-sectional, observational and hospital-based study. Clinical diagnosis and severity of depression were done using GDS. The sample used to analyse with regard to perpetrators and predictors was 24 of 100. No control group of elderly without abuse was done in the self-neglect and the control group.\[40\] Strasser et al. reported that the depressed respondents were six times more likely to have a positive elder mistreatment screen than their nondepressed peers.\[41\] Cooper et al. reported that severity of cognitive impairment, depression and delusions were the predictors of elder abuse.\[42\] The studies from India and other countries have clearly found an association between elder abuse and depression or depressive symptoms which can have an impact on diagnosis, outcome and treatment.

**CONCLUSION**

Abuse against the elderly is recognised as an important challenge to their healthcare. This is the first Indian study that highlights the high prevalence of abuse (24%) in elderly patients with depression. In depressed elderly, female gender, fewer educational years, widowhood status, and living in a joint family are significantly associated with experience of abuse, with the commonest being psychological. Daughters-in-law followed by sons were the most common perpetrators of abuse. Severe depression and illiteracy are important predictors of experiencing abuse in elderly patients with depression. Future research could look at studying the abuse in older adults with other mental illness including dementia in the Indian setting.

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**Conflict of interest**

There are no conflicts of interest.

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