



Understanding Elder Abuse in India: Contributing Factors and Policy Suggestions

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Abstract

Elder abuse is a multifaceted public health issue. The aim of this study is to provide a concise overview of elder abuse among adults age 60 and above, at the national and state levels in India. The main objective of this research is to examine the prevalence and determinants of elder abuse in light of the latest available data, with an emphasis on working status of older adults. Further, we explore the relative importance of distinctive factors explaining the gendered differential in elder abuse. This study also suggests some strategies to address the problem of elder abuse. Data from the 2020 Longitudinal Ageing Study in India indicates that although the overall prevalence of elder abuse is relatively low in India (5.22%), wide state-level variations prevail. Women, working older adults (especially working women), those under the age of 70, those with greater household assets, those not in a marital union, those staying in rural areas, and those in poor health have significantly higher chances of abuse than their counterparts. Both wealth and education must reach a critical level to curb abuse. Differences in economic factors explain only 10% of the gender gap in elder abuse prevalence. Sociodemographic factors alone account for around 29%, and health-related factors contribute to 28% of the gender differential in elder abuse. We argue for widespread protective policies and targeted program interventions to address elder abuse in India.

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Elder abuse was first introduced as “granny battering” in the early 1970s in the United Kingdom (Baker, 1975). The consensus definition of elder abuse is “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.” This definition was developed by the United Kingdom’s Action on Elder Abuse and was further adopted by the International Network for the Prevention of Elder Abuse (World Health Organization, 2002). Elder abuse is considered a fundamental violation of human rights and takes multiple forms, including physical, sexual, psychological, emotional, financial, or material abuse, neglect, or serious loss of dignity and respect (Krug et al., 2002; United Nations, 2020). One in every six people age 60 and above, accounting for 141 million people globally, suffered from one or another form of abuse in 2017 (United Nations, 2020).

A scoping review of 18 community-based studies found that the one-year aggregated global prevalence of elder abuse ranged from 2.2% to 36.2%, with a mean of 14.3%. This variation in prevalence might stem from cross-cultural and social differences in particular regions (Pillemer et al., 2016). Moreover, a systematic review of 52 studies from 28 geographically diverse countries estimated that about 15.7% of people age 60 and above were exposed to different forms of abuse. The pooled prevalence estimate was highest for psychological abuse (11.6%), followed by financial abuse (6.8%), neglect (4.2%), physical abuse (2.6%), and sexual abuse (0.9%) (Yon et al., 2017). The World Health Organization (2002) has also projected that the prevalence of elder abuse will increase as many countries age rapidly.

Elder abuse has severe consequences for individuals and society, including long-term outcomes related to mental health, risk of hospitalization, and even death. According to the National Council on Aging (2021), there is a 300% higher chance of death among abused older adults than among those who have not been mistreated. Psychologically abused older adults were 5.3 times more likely to attempt suicide than those who were not abused (Olofsson et al., 2012).

Aging is an inevitable fact of life, characterized by biological, psychological, and social transformations and the interaction of social and contextual factors. Worldwide, elder abuse has emerged as a social, economic, and health-related challenge in the wake of ongoing demographic transitions and the rising older adult population (United Nations Population Fund [UNFPA], 2012). Several biomedical and social science theories offer reasons for elder abuse. These theories range from social learning, social exchange theory, feminist explanations, and the psychopathology of the caregiver to symbolic interactionism theory (Jackson, 2009; Momtaz et al., 2013).¹ The roles of

¹ Social learning theory posits that violence is a learned behavior that may be passed down intergenerationally. Social exchange theory explains that elder abuse may occur because of the victim’s dependence on the abuser and vice versa. Feminist theory argues that elder abuse is the product of patriarchal family structure. Examining the psychopathology of the caregiver theory would include looking at how an abuser’s behavioral characteristics contribute to elder abuse. For instance, caregivers who consume alcohol and experience depression and anxiety are more likely to use physical and verbal abuse against an elder. Symbolic interactionism assumes that people view and react to elements or situations according to the subjective meanings they attach to those elements. Everyone attaches their own meaning to every other object, and this meaning is created or modified through social interactions involving symbolic communication with other people. Hence, the perception and interpretation of an object is not always the same for all people.

older adults have become imprecise due to changes in family dynamics, social structures, rising individualism in modern times, and a growing generation gap, which is perceived by older adults as being atypical (Jamuna, 2003; Khanna, 2019; Kumar & Bhargava, 2014).

Elder Abuse in India

The concept of elder abuse is relatively unrecognized in the Indian context owing to cultural conditioning and the traditionally multigenerational family systems in which older adults are revered (Jamuna, 2003; Nagpaul, 1998). However, multiple phenomena such as urbanization, technical advancement, and rural to urban migration challenge families' coping capacities (HelpAge India, 2012; Jamuna, 2003; Nagpaul, 1998) and create situations for potential elder abuse.

Some population-based studies have yielded insights into elder abuse (HelpAge India, 2014; UNFPA, 2012). One of these studies was conducted in 2011 by the United Nations Population Fund and provided the status of around 9,852 older adults, age 60 and above, from seven states of India (UNFPA, 2012). The study found that 11.7% of these older adults had experienced at least one type of abuse after turning 60, with verbal abuse being the most common (10.2%), followed by disrespect (6%), financial abuse (5.4%), physical abuse (5.3%), and neglect (5.2%) (Skirbekk & James, 2014; UNFPA, 2012).

HelpAge India, a nongovernmental organization set up in 1978, conducted a study in 2014 that yielded approximations of the prevalence of elder abuse. This study measured the symptoms, reasons, personal experience, and types of abuse; details about abusers; and reporting and redress mechanisms of individuals age 60 and above from 12 cities across eight Indian states, including six Tier I and six Tier II cities.² The study also included perceptions of older adults regarding the existence, type, and reasons for such abuse in society, and their awareness about available intervention mechanisms. A sample of 100 individuals per city was drawn, with equal representation of men and women. Further, six in-depth interviews per city were also carried out, with total coverage of 72 interviews across cities. The study found that about half of the sample had experienced abuse at some point in their old age; women (53%) reported a higher prevalence than men (48%). In addition, elder abuse went up sharply, from 23% in 2013 to 50% in 2014 (HelpAge India, 2014). Another report, *Human Rights of Older People in India: A Reality Check*, stated that misbehavior or mistreatment (36.94%) is the most common form of abuse among older adults age 60 and above. This study aimed to assess the perception of human rights and the factors responsible for the dismal status of human rights protection among older adults (Agewell Foundation, 2014).

² Tier I cities have a population of 100,000 or more, and Tier II cities have a population from 50,000 to 99,999.

Abuse can occur in many places, including the older adults' homes, relatives' homes, hospitals, nursing homes, or even workplaces. Evidence suggests that violence against older adults primarily occurs at home, at the hands of family members, who often are also their caregivers (Hardin & Khan-Hudson, 2005; Yan & Tang, 2004). A previous household survey of 300 older Indians found that nearly half of the individuals surveyed (49%) were abused or neglected by their family members (Sebastian & Sekher, 2011). This is particularly important in the Indian context as co-residence with family is fairly common (Samanta et al., 2015). Gender differences were observed in the source of abuse faced by older adults; the main source of abuse for men were outsiders while abuse mainly occurred within the family for women (except disrespect) (UNFPA, 2012).

Various factors, such as gender, education, financial status, living arrangement, residence, and cognitive and physical impairment, are associated with abusive behavior both from family members and from those outside the family (Hardin & Khan-Hudson, 2005; Samanta et al., 2015; Seth et al., 2019; Skirbekk & James, 2014; Tareque et al., 2014; Yan & Tang, 2004). Higher economic status and educational attainment, especially for women, are protective factors against elder abuse in India, while multimorbidity has emerged as a significant risk factor for elder abuse (Sathya et al., 2020). A recent report using data from the Longitudinal Ageing Study in India (LASI) indicates that older adults who lived alone, had functional limitations, and had been hospitalized in the past year were more likely to experience abuse. Abused older adults also were twice as likely to exhibit depressive symptoms (Thennavan et al., 2022).

Previous studies have also measured the effects of work and wealth status on elder abuse. Studies have found significantly more abuse among older adults belonging to low-income groups (Skirbekk & James, 2014; Tareque et al., 2014) and among working older adults (UNFPA, 2012). Most older adults who work are employed in the unorganized sector, engaging in activities such as agricultural and manual work, with no specific retirement age (Reddy, 2014; Shohe & Srivastav, 2018). However, characteristics of work among older adults also vary by sex and residence in India and hence these variables require special attention while examining abuse. The lower rate of work participation among older women is highly associated with their economic vulnerability, often indicating a lack of social security in old age (Chattopadhyay et al., 2022).

Existing Policies, Laws, Programs, and Services for Prevention of Elder Abuse in India

In recent decades, the Indian government has played a vital role in protecting older adults by putting legislative and judicial systems in place. With the Maintenance and Welfare of Parents and Senior Citizens (Amendment) Bill, 2019, older adults can avoid ill-treatment or abuse. The bill penalizes individual perpetrators with imprisonment for three to six months, a fine of up to Rs 10,000, or both. This bill also eliminates the Rs 10,000 maintenance fee upper limit, which was provided in the

Maintenance and Welfare of Parents and Senior Citizens Act, 2007. This legal move has to some extent helped address elder abuse in the Indian context (Press Information Bureau, 2019).

The legal provision for maintenance of aged or infirm parents was first made through the Hindu Adoptions and Maintenance Act, 1956, which laid down that maintenance must be provided only to those who are unable or have no means to sustain themselves (Government of India, 1956). The major drawback of this act at the time was its applicability only to the Hindu population. Additionally, it stated that if elderly parents had means to sustain themselves, the obligation of children to provide maintenance could be relaxed. Though this act improved the position of older adults to some extent, it failed to provide extensive protections in terms of maintenance of the aged population and did not define what constituted “enough” maintenance.

Other programs aimed at improving the overall well-being of older adults include the Indira Gandhi National Old Age Pension Scheme, the Annapurna program, the National Policy for Older Persons, and the Maintenance and Welfare of Parents and Senior Citizens Act (Government of India, 2020; Ministry of Law and Justice, 2007; Ministry of Social Justice and Empowerment, 1999). Despite this sustained policy effort focused on social security for older adults, none of these laws and acts are explicitly designed to protect them from ill-treatment or abuse.

Various nongovernmental organizations, such as HelpAge India and the Agewell Foundation, play a crucial role in addressing the issue of elder abuse. They support older adults by providing them with financial and emotional support. Various institutions voluntarily provide care in the form of old-age homes and day care centers for older adults (Kumar & Bhargava, 2014). HelpAge India provides health care, financial grants, and health assistance to older adults. They deal with active aging centers, old age homes, cancer care, and livelihood support (HelpAge India, 2012). Similarly, the Agewell Foundation has been working for the welfare of older adults since 1999. They provide advice on financial and legal matters, including pension problems, property matters, and income-related taxes (Agewell Foundation, 2018). The vision of the organization is to provide appropriate support to older adults to help them lead better lives.

Aim of the Research

The real picture of elder abuse in India is not entirely clear as previous studies are based on smaller data sets, provide state-specific estimates, or consider only limited risk factors. Due to social stigma, limited awareness of the Senior Citizens Act among older adults, the absence of uniform reporting, and the lack of nationally representative data, elder abuse is likely to be poorly estimated and overlooked in the literature. The Longitudinal Ageing Study in India reported that overall, 12.34% of the older adults are aware of the existence of the law whereas among victims the ratio was only one in ten (International Institute for Population Sciences [IIPS] et al., 2020).

Existing policies to address elder abuse also are limited. First, elder abuse reporting is infrequent in Indian society because even though it dates back to ancient times, crime against or abuse of older adults has never been considered a problem (Evandrou et al., 2017). Second, abuse investigation is more generalized and not focused on the sections that suffer the most, such as older women, rural residents, or the non-rich. Previous studies have pointed out the need for exploring specific forms of abuse and the risks involved in victim–perpetrator dyads (Dean, 2019; Dong, 2015; Edd et al., 2016; Jackson & Hafemeister, 2016).

Therefore, this study provides a concise view of elder abuse at the national and state levels to inform legal safeguards and policies regarding elder abuse in India. The main objective of this research is to examine the prevalence and risk factors of elder abuse in light of the latest available data, with an emphasis on working status and the gendered differential in abuse. To our knowledge, this is the first study that explains the relative importance of economic, social, and health domains in male and female abuse among older adults in India. Finally, we suggest strategies to address the problem of elder abuse. This study outlines elder abuse by using the recently released data from the first wave of the LASI, conducted in 2017–2018 (IIPS et al., 2020).

Data and Methods

LASI is a nationally representative survey with data from all states and union territories of India (except Sikkim). The survey covered 72,250 men and women age 45 and above, and their spouses irrespective of their age. LASI used a multistage stratified area probability cluster sampling with a three-stage sampling design in rural areas, and a four-stage sampling design in urban areas, to reach the final observation units. The details of sampling and the methodology of the survey design and data collection are published in the survey report (IIPS et al., 2020). The current study is based on individuals age 60 years and above, with a sample of 30,472.

Outcome Variable

The outcome variable in this study examines whether an individual has faced any kind of ill-treatment in the last year. The respondents were asked, “Have you felt that you were ill-treated in the past year?” Respondents who reported in the affirmative are considered to be abused in this study. The variable is binary in nature (yes/no). Further, respondents were asked, “How often did you feel that way?” Responses were recoded as *frequently*, *occasionally*, and *only few times*. The survey maintained respondents’ privacy as interviewers were instructed not to ask any further questions if anyone else was present in the room. Subsequently, respondents were asked, “Who were the persons who ill-treated you in the last one year?” The response was recoded into several different categories, such as daughter-in-law, son, neighbor, relative, spouse, grandchildren, and other (daughter/s, son-in-law, brother, sister, other relatives). They also were asked about the kind of ill-treatment they faced. The latter

covers all types of ill-treatment faced inside and outside the household, including physical abuse, verbal abuse or disrespect, economic exploitation, emotional/psychological abuse, and neglect (IIPS et al., 2020). The terms *ill-treatment* and *elder abuse* have been used interchangeably in the study.

Independent Variables

Based on previous literature (Sathya & Premkumar, 2020; Sathya et al., 2020; Seth et al., 2019; Sinha et al., 2021; Skirbekk & James, 2014; Tareque et al., 2014; Thennavan et al., 2022), various sociodemographic characteristics (gender, age group, educational attainment, marital status, living arrangement, religion, caste, and residence), economic variables (working status, asset ownership, and wealth status), and health-related covariates (self-rated health, activity of daily living [ADL], chronic conditions) were included in the study.

Gender was categorized into male and female. Age was grouped into three categories (60–69 years, 70–79 years, and 80 and above). Educational attainment was grouped as no schooling, 1–5 years, 6–10 years, and more than 10 years of schooling. Marital status was classified as currently in marital union, widowed, or others (which might mean separated, divorced, live-in, or never married). Living arrangement was grouped into living with children and others, living with spouse and others, or living alone. Religion was classified into Hindu, Muslim, or other. Caste was coded into schedule caste (SC), schedule tribe (ST), other backward class (OBC), and other. Place of residence was coded as rural or urban.

The working status of older adults was coded as *never worked*, *previously worked but currently not working*, and *currently working*. “Current work” refers to the work status of the respondent at the time of survey, which includes those working at the time of survey or those temporarily laid off, sick, or in training (IIPS et al., 2020). Wealth status was measured through monthly per capita expenditure on household consumption, with a set of 11 questions on the expenditure for food and 29 questions on the expenditure for nonfood items. Food and nonfood expenditures have been standardized to a 30-day reference period. Monthly per capita expenditure is used as a summary estimate of consumption. The variables were then categorized into three categories: *poor*, *middle*, and *rich*. Asset ownership was computed using information collected on household assets, which include ownership of a house, agricultural assets, land properties, wealth stock (financial and nonfinancial assets), and business assets. A composite scale was calculated, and the variable was recoded as *no asset*, *one or two assets*, and *two or more assets*.

Self-rated health was coded as good (*very good/good/fair*) or poor (*poor/very poor*). To measure an individual’s ability to undertake the activity of daily living, respondents were asked if they have any difficulties in dressing, walking, bathing, eating, mobility, or using the toilet. A composite index was created on the basis of the six questions. A response variable “difficulty in ADL” was coded into *no* (0) or *yes* (1). Cronbach’s alpha for the ADL scale was 0.852. Chronic disease was assessed through nine self-reported chronic conditions (hypertension, diabetes, cancer, lung disease, heart disease, stroke, bone-related disease, neurological/

psychiatric diseases, and high cholesterol). Based on these nine chronic conditions, a composite index was constructed and the variable “chronic diseases” was categorized as No (*no disease*) and Yes (*one or more diseases*).

Statistical Analysis

First, descriptive statistics were used to get a national picture of elder abuse. Next, binary logistic regression was fit to understand the role of working status on the prevalence of abuse among older adults, after controlling for various individual and household characteristics. The results are presented in the form of odds ratio (OR) with a 95% confidence interval (CI). Further, multivariate nonlinear decomposition analysis was performed to understand the major factors contributing to gender gaps in the prevalence of elder abuse. The decomposition partitions the covariates into components attributable to differences in the characteristics themselves and the differences in the effects of the characteristics. Three models for decomposition were built. The first decomposition considered economic factors alone; the second decomposition took sociodemographic characteristics into account along with the economic factors; the third decomposition included health-related factors such as ADL, self-rated health, and chronic conditions, in addition to the factors considered in the second decomposition. All the analyses were performed using Stata version 14.2 and Microsoft Excel.

Results

Characteristics of the Study Population

The sample consisted of 52.82% females and 47.18% males. Just under sixty percent (59.47%) of the participants were aged 60–69, more than half (56.49%) did not have formal schooling, 61.84% were currently in a marital union, and 5.72% of the older adults were living alone. About 82.69% followed the Hindu religion, and the majority lived in rural areas. More than one-third (36.04%) were working, and 51.21% had more than two household assets. Around one-fourth (24.3%) of respondents reported their health status as poor, 22.3% reported difficulty in ADL, and more than half reported having chronic disease (see Appendix, Table 5).

Abuse Across States of India

Nationally, about 5.22% of the older adult population reported abuse. Older adults in the state of Bihar (11.65%) had the highest percentage of elder abuse, followed by Karnataka (10.11%). Gendered differences were observed in terms of elder abuse. For instance, in Karnataka, one in ten women experienced abuse, whereas the prevalence among men was around 6.8%. With the exception of Arunachal Pradesh, all the northeastern states reported a significantly lower prevalence of

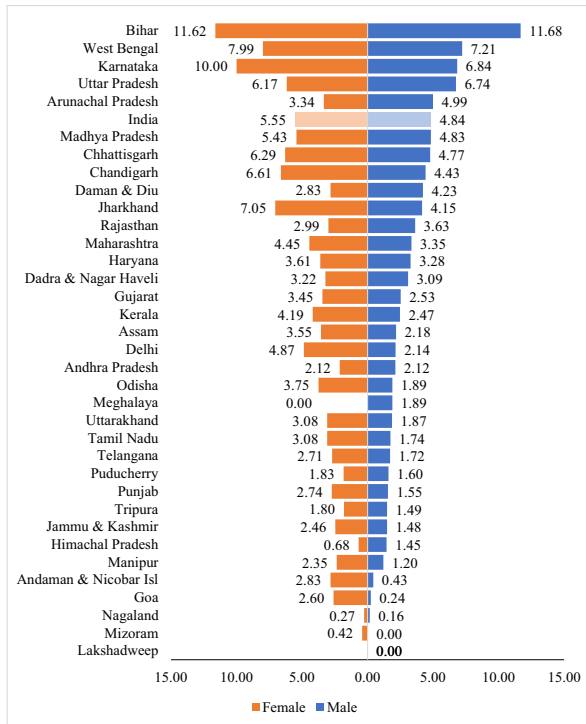


Fig. 1 Elder Abuse in the States of India (%), by Gender, 2017–2018 (n = 30,427)

elder abuse than the national average. In the state of Kerala, home to the highest percentage of older adults age 60 years and above in India (Registrar General of India, 2011), around 3.82% of all older adults were abused, and this was higher among women (Fig. 1).

Type and Perpetrators of Abuse

The findings show that nearly 14% of the respondents were frequently abused, whereas more than half (52.83%) were mistreated occasionally. Women experienced a higher prevalence of abuse than men. Verbal abuse (93.33%) was marked as the most common form of abuse experienced by older adults, followed by neglect (65.58%), emotional abuse (52.78%), economic abuse (33.03%), and physical abuse (29.56%). Immediate family members were the most common perpetrators of elder abuse. Daughters-in-law (34.91%) and sons (33.21%) were reported to be the primary abusers. About one-third of the respondents reported abuse by their neighbors. Abuse from spouses and grandchildren was reported at around 6.71% and 4.53%, respectively (Table 1).

Table 1 Frequency, Type, and Perpetrators of Elder Abuse, India, 2017–2018

Variable	Total n (%)	Male n (%)	Female n (%)
Frequency of abuse			
Frequently	180 (14.35)	71 (13.21)	109 (15.24)
Occasionally	652 (52.83)	249 (47.47)	403 (57.00)
Only a few times	438 (32.83)	217 (39.33)	221 (27.76)
Number of older adults	1,270	537	733
Type of abuse			
Physical	270 (29.56)	117 (34.53)	153 (25.68)
Verbal	924 (93.33)	377 (90.41)	547 (95.62)
Economic exploitation	330 (33.03)	147 (36.00)	183 (30.71)
Emotional	494 (52.78)	203 (52.39)	291 (53.08)
Neglect	619 (65.58)	255 (64.46)	364 (66.46)
Number of older adults	1,002	420	582
Perpetrator of abuse			
Daughter-in-law	361 (34.91)	87 (20.02)	274 (46.51)
Son	311 (33.21)	126 (31.89)	185 (34.23)
Neighbor	325 (32.82)	183 (43.8)	142 (24.27)
Relative	144 (12.51)	52 (10.35)	92 (14.19)
Other	101 (9.15)	57 (12.87)	44 (6.26)
Spouse	73 (6.71)	35 (7.56)	38 (6.06)
Grandchild	51 (4.53)	13 (2.46)	38 (6.13)
Number	999	418	581

Work and Abuse

Working status had an inverse relationship with elder abuse. The lowest levels of abuse were found among those who had never worked (3.73%). The prevalence of abuse was highest among older adults who were currently working (5.98%), followed by those who had worked previously but were not currently working (5.54%). The prevalence of verbal abuse was 4.46% among the working, 4.29% among those who had worked previously, and 2.59% among those who had never worked. About 2.85% of working older adults faced emotional abuse and 1.85% percent experienced economic exploitation (Table 2).

Table 3 presents the odds ratio for elder abuse, grouped by selected characteristics. The regression model indicates that those who previously worked and those currently working had significantly higher odds of experiencing abuse than those who had never worked. Working older adults had a 67% ($p < 0.01$, CI 1.41–1.99) higher chance of facing abuse compared to those who had never worked. Further, gender-wise multivariate analysis shows that working older women were at markedly higher risk (OR 1.87; $p < 0.01$, CI 1.53–2.28) of abuse than older women who have never worked. In contrast, currently working older men and those who had previously worked had a lower chance of being abused than the reference category, though this difference was not statistically significant (Fig. 2).

Table 2 Abuse Among Older Adults by Type of Abuse and Working Status, India, 2017–2018

Type of abuse	Working status			Chi-square test
	Never worked <i>n</i> (%)	Previously worked but currently not working <i>n</i> (%)	Currently working <i>n</i> (%)	
Physical	59 (0.72)	99 (1.38)	112 (1.46)	7.985 (0.024)
Verbal	204 (2.59)	349 (4.29)	371 (4.46)	20.381 (0.000)
Economic exploitation	68 (0.77)	123 (1.36)	139 (1.85)	11.969 (0.003)
Emotional	125 (1.38)	174 (2.42)	195 (2.58)	5.524 (0.063)
Neglect	139 (1.70)	230 (3.12)	250 (3.12)	13.066 (0.001)
Number	286 (3.73)	481 (5.54)	503 (5.98)	

Other Factors Determining Elder Abuse

Financially well-off older adults were 26% ($p < 0.01$, CI 0.65–0.85) less likely to face abuse than those who belong to the poor wealth quantile. However, holding two or more assets (OR 1.31; $p < 0.1$, CI 0.96–1.77) was associated with more abuse, contrary to the existing literature in India. There was a significant gender difference, in which women had a 30% ($p < 0.01$, CI 1.13–1.51) higher chance than men of experiencing abuse. Older adults with more than ten years of schooling had a 27% ($p < 0.05$, CI 0.54–0.98) lower chance of being abused, and this association was statistically significant. The probability of being abused was higher among older adults who were not in a marital union. Older adults living alone (OR 1.72; $p < 0.01$, CI 1.38–2.14) and those living with a spouse and others (OR 1.35; $p < 0.01$ CI 1.15–1.57) were more vulnerable to abuse than those living with children and others. Rural residents had a 45% ($p < 0.01$, CI 1.25–1.69) higher risk of facing abuse than their urban counterparts. Older adults with self-rated poor health (OR 1.64; $p < 0.01$, CI 1.45–1.86), having difficulties in daily activities (OR 1.62; $p < 0.01$, CI 1.43–1.85), and having chronic conditions (OR 1.15; $p < 0.05$, CI 1.02–1.3) were more likely to report abuse than those who perceived their health as good and did not have ADL difficulties or chronic conditions. Education and caste showed interesting abuse patterns; however, they did not emerge as significant correlates of elder abuse (Table 3).

Contributing Factors in Explaining Gender Differential in Elder Abuse

Table 4 shows results from three different decomposition models. Model 1, the economic model, shows that differences in endowments explain just over 10% of the gender gap in the prevalence of elder abuse. Working status made a large contribution to differences in elder abuse among both men and women (15.93%). Model 2, considering economic and sociodemographic factors together, suggests that nearly 47% of the gender gap in elder abuse is due to the differences in those characteristics. Overall, sociodemographic factors contributed to around 28% (of 46.66%) of

Table 3 Abuse Among Older Adults and Logistic Regression Estimate for Determining Abuse, India, 2017–2018

Covariate	Prevalence (%)	Odds ratio (CI 95%)
Working status		
Never worked®	3.73	
Earlier worked but currently not working	5.54	1.33*** (1.13–1.57)
Currently working	5.98	1.67*** (1.41–1.99)
Wealth status		
Poor®	5.67	
Middle	5.66	0.89 (0.76–1.03)
Rich	4.41	0.74*** (0.65–0.85)
Having assets		
No®	4.92	
1–2	4.66	1.08 (0.8–1.46)
More than 2	5.72	1.31* (0.96–1.77)
Gender		
Male®	4.84	
Female	5.55	1.30*** (1.13–1.51)
Age group (in years)		
60–69®	5.12	
70–79	5.76	1.03 (0.91–1.18)
80 and above	4.23	0.79** (0.64–0.97)
Educational attainment (in years)		
No®	5.91	
1–5 years	4.68	0.89 (0.76–1.05)
6–10 years	4.37	0.87 (0.72–1.04)
More than 10 years	3.37	0.73** (0.54–0.98)
Marital status		
Currently in marital union®	4.89	
Widowed	5.69	1.1 (0.94–1.28)
Others	6.72	1.58*** (1.14–2.18)
Living arrangement		
Living with children and others®	4.8	
Living with spouse and others	5.94	1.35*** (1.15–1.57)
Living alone	8.16	1.72*** (1.38–2.14)
Religion		
Hindu®	5.48	
Muslim	5.08	0.87 (0.72–1.06)
Others	2.17	0.44*** (0.35–0.55)
Caste		
Other than OBC/SC/ST®	4.45	
OBC	5.20	1.06 (0.91–1.23)
SC/ST	6.03	1.09 (0.93–1.29)
Residence		
Urban®	3.78	

Table 3 (continued)

Covariate	Prevalence (%)	Odds ratio (CI 95%)
Rural	5.80	1.45*** (1.25–1.69)
Self-rated health		
Good®	4.46	
Poor	7.59	1.64*** (1.45–1.86)
Activity of daily living		
No®	4.71	
Yes	6.94	1.62*** (1.43–1.85)
Chronic condition		
No®	5.03	
Yes	5.38	1.15** (1.02–1.3)

®=reference category; SC=schedule caste; ST=schedule tribe; OBC=other backward class. Odds ratio adjusted for all the study covariates.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

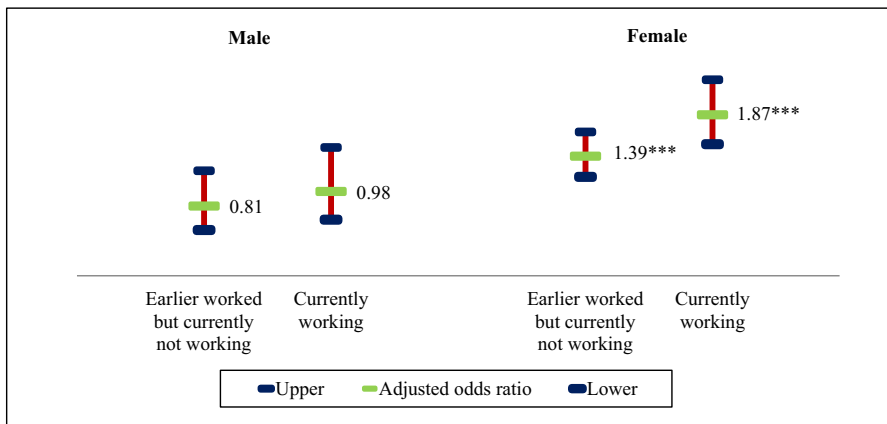


Fig. 2 Adjusted Odds Ratio for Determining Abuse by Gender, India, 2017–2018: Logistic Regression Estimate. **Note:** Reference category is *never worked*. Odds ratio adjusted for all the covariates in the study

the gender differential in elder abuse. As we shifted from Model 1 to Model 2, the contribution of working status in differences in elder abuse increased from 16 to 21% (see Appendix, Table 6), while in Model 3, in which health-related factors were added to the factors in Model 2, the total endowment effect increased to 69%, largely reducing the “unexplained” contribution (30.84%). Overall, health-related factors contributed to around 28% of the gender differential in elder abuse (Model 3). The contribution of working status to elder abuse again drops to 12.19. However, the negative coefficient shows that if males had the same distribution of working status as females, the gender gap in elder abuse would increase. The results of the full decomposition model are presented in Appendix, Table 6.

Table 4 Multivariate Nonlinear Decomposition for Gender Gap in the Prevalence of Elder Abuse in India

Model and effect		Due to differences in characteristics (endowment effect)		Due to differences in effects (coefficient effect)	
		Coefficient	Percentage	Coefficient	Percentage
Model 1	Economic effect	-0.0010	10.28	0.0107	-114.26
	Constant			-0.0192	203.98
	Total effect	-0.0010	10.28	-0.0084	89.72
Model 2	Economic effect	-0.0017	17.86	0.0140	-148.45
	Sociodemographic effect	-0.0027	28.80	-0.0059	62.53
	Constant			-0.0131	139.58
	Total Effect	-0.0044	46.66	-0.005	53.66
Model 3	Economic effect	-0.0011	12.19	0.0125	-133.27
	Sociodemographic effect	-0.0027	29.23	-0.0059	62.32
	Health effect	-0.0026	27.99	-0.0019	20.21
	Constant			-0.0077	81.57
	Total effect	-0.0065	69.41	-0.0029	30.84

Discussion

Elder abuse is still a complex, hidden, and sensitive issue that is difficult to investigate (Jaiprakash, 2001). With the increasing aging population, elder abuse cases are expected to rise (Yan & Tang, 2004; Yon et al., 2017). Findings from the study show that, nationally, 5.22% of the study participants reported being abused. The prevalence was lower than in previous studies in India, which used different data sources (Mawar et al., 2018; Saikia et al., 2015; Sinha et al., 2021), possibly due to differences in defining and measuring abuse, the purpose and sample frame of the studies, or the protocol followed while posing such sensitive questions.

The study noticed a wide variation by state. Bihar, a state that does not perform well on multiple socioeconomic indicators, has the highest prevalence of elder abuse, followed by Karnataka—a well-performing state in terms of development. Interestingly, abuse prevalence was higher in states where violence against women in the reproductive age group was also reported to be higher (IIPS, 2017). According to the latest National Family Health Survey, around one-third of women justified “wife beating” or “hitting”, and Karnataka (44%), followed by Bihar (40%), exhibit maximum spousal violence (IIPS, 2021). This could indicate a continuing pattern of violence or a culture of spousal violence in the household, leading to abusive behavior even in old age (Jackson, 2009).

Previous evidence suggests that witnessing disruptive behavior or traumatic events, or exposure to or witnessing abuse as a child, are major risk factors for perpetration (Centers for Disease Control & Prevention, 2020; Jackson, 2009; Sinha & Chattopadhyay, 2016; Sinha et al., 2022). Likewise, the social learning theory explains that violence is a learned behavior and triggered by stress, alcohol abuse, or financial burden (Jackson, 2009). Thus, abuse in India cuts across states, irrespective of development status, and may be attributed to a culture of violence.

The present study confirms that elders were abused mainly by family members. Previous studies also have reported that people who commit elder abuse often occupy a position of trust (Jaiprakash, 2001). In the Indian setting, most parents depend on their children and grandchildren in their old age (Lieber et al., 2020), and this exposure might be one of the main reasons that sons, daughters-in-law, and grandchildren are frequent abusers. Social isolation, vulnerability, and dependence on another human being for care are commonly related to elder abuse (Day, 2007). Low social security coverage and problems with intergenerational lifestyle adjustments tend to increase the burden on the family in terms of financial stress and time use (Jackson, 2009; Kumar & Bhargava, 2014; Skirbekk & James, 2014).

A focus group study from India confirmed that older adults often are considered a burden in society (Rashmi et al., 2020), and the Western ideal of autonomy has created a sense of burden among older adults as well (Jaggard, 2018). However, the analysis indicates that if they are staying with children, older adults undergo comparatively less abuse than those residing alone or with others. Another study, in Indonesia, reveals robust evidence of a negative co-residence effect and heterogeneity in co-residence on abuse. The researchers termed this as a better co-residence effect (Johar & Maruyama, 2014). In the present study, neighbors also emerged as perpetrators of elder abuse, especially of male older adults. It may be that older men have greater social participation outside the house than women, resulting in exposure to different forms of abuse outside of the house (UNFPA, 2012).

Various sociodemographic, economic/financial, and health-related factors affect the likelihood of elder abuse. An individual's working status is one such significant factor. The results highlight that prevalence of abuse was higher among currently working older adults; verbal abuse (4.46%) and neglect (3.12%) were the most common forms of abuse faced overall. In India, paid work in old age is generally associated with poverty, economic insecurity, and lower socioeconomic status (Reddy, 2014), and these conditions might be the reason for the higher prevalence of abuse in the working population (Ramalingam et al., 2019). Financial dependence has a significant potential association with experiencing elder abuse (Pillemer et al., 2016). A recent study revealed that older adults with less education, those living alone, and those lacking health insurance or pension coverage are more likely to work beyond age 60 (Chattopadhyay et al., 2022). It has been observed that poverty has an enormous impact on neglect. A significant decline in the prevalence of elder abuse has been observed when moving from the poor to the rich category. Wealthier older adults who either have continued and assured income or can assist their households in purchasing assets do not typically face ill-treatment (Tareque et al., 2014).

Contrary to previous findings from India that possessing economic capital in the form of land or other assets reduced the likelihood of abuse (Skirbekk & James, 2014), the present study found that the probability of abuse was higher among older adults with more assets. Cultural factors may play a role in this matter. For instance, within the Indian cultural setting, older adults are expected to share their assets and resources with family members even when they have not acknowledged or authorized this allocation of resources (National Research Council, 2003). In addition, older adults are presumed to be vulnerable due to their poorer health conditions, which makes them easy targets for financial abuse. Hence, if older adults can't contribute financially, they are also more likely to experience violence, as they are economically dependent on their caregivers/family members (Sinha et al., 2021).

Incidence of abuse also varies significantly by gender. The present study found that more women undergo abuse in their older age, and working older women face substantially more abuse than those who are not working, while no such variation was observed among males. The work profile of Indian women is different from that of women in other countries (Verick, 2011; World Bank, 2022). Around 47% of women in the study belong to the “never worked” category, meaning they might be from a better socioeconomic strata of society, and as an effect of household income on participation, there is a comparatively lower level of elder abuse in this group than among the working population (Verick, 2011).

The vulnerability due to women’s economically disadvantaged position in a patriarchal society, gender differences in social norms, and marginalization increases the risk of abuse among older women (HelpAge India, 2014; Jaiprakash, 2001; UNFPA, 2012; Yan & Tang, 2004). We can argue that this is due to deep-rooted gender norms in our patriarchal society, in which women have always been portrayed as unpaid caregivers and men as the breadwinners of the family. The feminist theory also suggests that men have more social and financial resources and consider women to be their property (Momtaz et al., 2013). An extreme expression of this norm within a family is domestic violence against working women (Paul, 2016; Singh & Pattanaik, 2020). Furthermore, vulnerable female older adults (living in rural areas, living alone, or divorced/separated) work more than their male counterparts in India (Chattopadhyay et al., 2022). Thus, work is not a protective factor against abuse among older women, ostensibly due to their already vulnerable status.

This study reveals that gender differences in elder abuse can be well explained by differences in sociodemographic and health factors, which respectively contribute around 29% and 28% of the gender differential in India when controlling for other financial factors. Sinha et al. (2021) found that educational attainment and working status substantially contribute to disparities in violence and that education alone was expected to reduce the gender gap in abuse. Women, who face more violence, can curb the situation if they have higher education and financial security, as studies have found that women also are more likely to endure financial abuse (Pillemer et al., 2016). In line with previous literature (Hosseinkhani et al., 2019; Skirbekk & James, 2014; Tareque et al., 2014), this study found that older adults with lower educational attainment (< 10 years) were more vulnerable to abuse. Educated older adults may have confidence and a better sense of self-respect, leading to decreased risk of abuse (Skirbekk & James, 2014; Tareque et al., 2014).

Older adults who were not in a marital union were more likely to have been abused, which might be due to social isolation and the resulting increased vulnerability (Pillemer et al., 2016; Ramalingam et al., 2019). Poor health conditions are linked to the risk of abuse and are a major contributor to the gender gap in abuse. Disability, poor physical or mental health, and chronic conditions in old age demand long-term care and greater health care expenditure, which causes stress in the household, thereby increasing the risk of abuse (Chokkanathan & Lee, 2008; Jaggard, 2018; Pillemer et al., 2016; Sathya & Premkumar, 2020; Sathya et al., 2020). Recent research has highlighted that older adults’ quality of life is jeopardized by abuse and neglect. This could take the form of poor self-rated health, feeling worthless or depressed, mental stress, or worsened functional status (Chokkanathan & Lee, 2008; Dong, 2005; Jaggard, 2018).

In sum, the positive impact of wealth and health in curbing abuse is clear in the present study. However, both wealth and education need a critical level to curb abuse.

Nonrich (poor and middle class) and less-educated older adults might not be aware of their rights and laws related to their welfare, and neither do they have the financial strength to stand against the abuser (Agewell Foundation, 2014; UNFPA, 2012).

The Way Forward

There is an urgent need to increase awareness among older adults about existing policies programs to take measures in cases of abuse. Developing a sustainable policy that will bring about desired results requires the strong motivation of key stakeholders and policy makers. Based on the evidence and policy related to elder abuse (Dean, 2019; Dong, 2015; Edd et al., 2016; Kumar & Bhargava, 2014) and results from the present study, we recommend prioritizing interventions that can be used to inform policy against elder abuse in India.

Problem Identification

Each state should examine state-specific determinants to curb elder abuse and develop their own strategies. Identifying the problem among specific groups at the national and state levels can enhance the understanding of elder abuse in the population. More importantly, this involves identifying particular groups in which elder abuse prevalence and risks are higher. For example, this study suggests that intervention should be prioritized among older adults who are working, among women, and among those who are less educated, have more asset holdings, reside in rural areas, belong to nonrich economic strata, and are in poor health.

Strengthening Service Response, Strategic Planning, and Policy Development

This study reveals that higher wealth status reduces abuse. There should be policies or programs that empower older adults as productive members of society at every level. Abuse will decline significantly when we make older adults financially strong and healthy and do not consider them a liability or burden on society. The study also suggests that sociodemographic and health-related factors contribute significantly and equally to the gender gap in abuse. However, social factors such as marital status or residence take years to change and demographic factors such as age are irreversible, whereas health-related factors are modifiable and many diseases can be averted. Therefore, policy makers need to focus on health-related factors at every level of intervention. The present government's Health and Wellness Centres are an excellent initiative in this regard (National Health Protection Mission, 2018).

Improving Community Awareness, Social Support, and Access to Information

This study findings indicate that the main perpetrators of abuse are family members and neighbors. Therefore, awareness strategies should be encouraged in the population, including among older adults, as an early intervention to enhance knowledge

and understanding around elder abuse and to prevent its occurrence. Community groups, family, media, and technology can play a vital role in empowering men and women in their adult years to plan for their well-being, health, financial security, economic independence, social connectivity, and self-endowment. Social supports, such as caregiver support services and elder abuse helplines, need to be utilized as prevention strategies. In addition, educational interventions are necessary to develop respect for older adults among children and youth, as abuse is most prevalent within households.

Health Screening and Risk Assessment

The present study reveals that better health conditions are associated with decreased incidence of abuse. To reduce elder abuse and harmful impacts, health screening and risk assessment strategies must be administered through geriatric centers, community centers, and at every administrative level. Trained paramedics can adopt a multifaceted approach to risk assessment in health care settings. A recently published study on knowledge, attitude, and practice in geriatric health care reported that nearly half of the medical professionals have insufficient knowledge about the specialized branch of geriatric health care and its issues (Salagre et al., 2022). Doctors should specialize in geriatric care to attend to the special care needs of older adults, and paramedics should be rigorously trained to identify health risks within this population across urban and rural contexts. Ayushman Bharat is a national health protection program covering more than 100 million poor and vulnerable families, for a total of 500 million beneficiaries (National Health Protection Mission, 2018). Expansion of this coverage to every older person can go a long way in improving their health.

Conclusion

While the overall prevalence of elder abuse in India is relatively low, there is a wide spatial variation. The prevalence of abuse among older adults is found to be higher among women; working older adults, especially women; nonrich, rural residents; and those experiencing poor health. Moreover, older adults are mainly abused by their family members and neighbors, indicating perhaps the devaluation of the graying population in society. Compared to older men, older women's economic engagement is not a protective factor against abuse, perhaps due to their typically lower-paid work. Social and health factors contribute profoundly to gender differences in elder abuse.

To address elder abuse, we need to increase respect for the graying population by increasing awareness of existing protective policies and programs, sensitizing younger generations with "aging education," offering educational and skills training to older adults, and providing health screening and treatment facilities through health protection schemes. Using the latest nationally representative scientific sample survey of older adults, we highlight the need to strengthen strategies that can integrate social and health policies and curb elder abuse in India.

Appendix

Table 5 Characteristics of the study population ($n = 30,427$)

Covariates	Total (%)	Male (%)	Female (%)
Age group (years)			
60–69	18,548 (59.47)	8,726 (59.01)	9,822 (59.88)
70–79	8,772 (29.78)	4,376 (30.3)	4,396 (29.32)
80 and above	3,107 (10.74)	1,474 (10.69)	1,633 (10.8)
Educational attainment (years)			
No	16,275 (56.49)	5,254 (38.52)	11,021 (72.54)
1–5 years	5,667 (17.63)	3,259 (22.69)	2,408 (13.1)
6–10 years	5,931 (18.04)	4,117 (25.71)	1,814 (11.2)
More than 10 years	2,554 (7.84)	1,946 (13.08)	608 (3.16)
Marital status			
Currently in marital union	19,394 (61.84)	12,009 (81.16)	7,385 (44.58)
Widowed	10,247 (36.03)	2,182 (16.45)	8,065 (53.52)
Others	786 (2.13)	385 (2.39)	401 (1.9)
Living arrangement			
Living with children and others	22,920 (74.44)	10,705 (72.74)	12,215 (75.96)
Living with spouse and others	5,931 (19.84)	3,521 (24.79)	2,410 (15.42)
Living alone	1,576 (5.72)	350 (2.46)	1,226 (8.63)
Religion			
Hindu	22,305 (82.69)	10,705 (82.78)	11,600 (82.61)
Muslim	3,592 (10.73)	1,735 (10.91)	1,857 (10.57)
Other	4,530 (6.58)	2,136 (6.31)	2,394 (6.82)
Caste			
Other than OBC/SC/ST	8,952 (27.76)	4,267 (27.72)	4,685 (27.79)
OBC	11,505 (45.17)	5,580 (45.47)	5,925 (44.9)
SC/ST	9,970 (27.07)	4,729 (26.8)	5,241 (27.31)
Residence			
Urban	10,349 (28.92)	4,830 (27.09)	5,519 (30.56)
Rural	20,078 (71.08)	9,746 (72.91)	10,332 (69.44)
Working status			
Never worked	8,493 (26.5)	720 (3.8)	7,773 (46.76)
Earlier worked but currently not working	11,430 (37.46)	6,717 (44.9)	4,713 (30.82)
Currently working	10,504 (36.04)	7,139 (51.29)	3,365 (22.42)
Wealth Status			
Poor	12,494 (43.54)	5,874 (42.59)	6,620 (44.39)
Middle	6,216 (20.73)	2,965 (21.08)	3,251 (20.42)
Rich	11,717 (35.73)	5,737 (36.33)	5,980 (35.19)
Having assets			
No	1,419 (4.88)	581 (4.05)	838 (5.61)
1–2	14,635 (43.92)	6,763 (41.26)	7,872 (46.29)

Table 5 (continued)

Covariates	Total (%)	Male (%)	Female (%)
More than 2	14,373 (51.21)	7,232 (54.69)	7,141 (48.09)
Self-rated health			
Good	23,387 (75.7)	11,522 (77.66)	11,865 (73.95)
Poor	7,040 (24.3)	3,054 (22.34)	3,986 (26.05)
Activity of daily living			
No	24,200 (77.27)	12,061 (80.09)	12,139 (74.75)
Yes	6,227 (22.73)	2,515 (19.91)	3,712 (25.25)
Chronic condition			
No	13,969 (47.08)	7,055 (49.7)	6,914 (44.74)
Yes	16,458 (52.92)	7,521 (50.3)	8,937 (55.26)
Total	30,427 (100)	14,576 (47.18)	15,851 (52.82)

SC schedule caste, *ST* schedule tribe, *OBC* other backward class

Table 6 Multivariate Nonlinear Decomposition for Gender Gap in the Prevalence of Abuse Among Indian Older Adults

	Economic model		Economic + sociodemographic model		Economic + sociodemographic + health model	
	Coefficient	Percentage	Coefficient	Percentage	Coefficient	Percentage
Endowment effect	-0.001	10.28	-0.0044	46.34	-0.0065	69.16
Coefficient effect	-0.0084	89.72	-0.005	53.66	-0.0029	30.84
Due to differences in characteristics (endowment effect)						
Working status						
Never worked	-0.0011	11.79	-0.0014	15.08	-0.0014	14.43
Previously worked but currently not working	-0.0004	4.72	-0.0005	4.86	-0.0009	9.45
Currently working	0.0001	-0.58	-0.0001	1.24	0.0007	-6.97
Wealth index						
Poor	0.0000	0.42	0.0000	0.27	0.0000	0.33
Middle	0.0000	0.09	0.0000	0.09	0.0000	0.1
Rich	-0.0001	1.37	-0.0001	1.2	-0.0001	1.4
Assets						
No	0.0002	-2.06	0.0002	-1.83	0.0002	-2.48
1-2	-0.0001	0.73	-0.0001	1.4	-0.0002	1.89
More than 2	0.0006	-6.2	0.0004	-4.45	0.0006	-5.97
Age						
60-69			0.0001	-0.59	0.0000	0.11
70-79			0.0001	-1.37	0.0002	-1.65
80 and above			0.0000	0.06	0.0000	-0.15
Education						
No			-0.0007	6.97	-0.0004	4.05
1-5 years			0.0002	-1.94	0.0001	-0.92
6-10 years			0.0002	-1.96	0.0001	-1.42
More than 10 years			-0.0005	5.66	-0.0003	3.17
Marital status						
Currently in marital union			-0.0037	38.96	-0.0038	40.23
Widowed			0.0014	-14.75	0.0012	-12.89
Others			0.000	-0.17	0.000	-0.18

Table 6 (continued)

	Economic model		Economic + sociodemographic model		Economic + sociodemographic + health model	
	Coefficient	Percentage	Coefficient	Percentage	Coefficient	Percentage
Living arrangement						
			0.0003	-3.1	0.0003	-3.11
			0.00	0.2	-0.0001	0.88
Religion			-0.0004	4.68	-0.0005	5.14
			0.000	-0.36	0.000	-0.38
			0.000	0.1	0.000	0.09
			0.0001	-0.86	0.0001	-0.86
Caste			0.000	-0.11	0.000	-0.12
			0.000	-0.09	0.000	0.03
			0.000	0.17	0.000	0.23
Residence			0.0003	-2.7	0.0003	-3.02
Self-rated health					-0.0009	9.67
Activity of daily living					-0.0015	15.62
Chronic conditions					-0.0003	2.7
Due to differences in effects (coefficient effect)						
Working status						
			0.0104	-110.5	0.0126	-134.45
			-0.0019	20.46	-0.0023	24.76
			-0.0031	33.23	-0.0038	40.53
			-0.0026	27.92	-0.004	42.92
Wealth index			0.0023	-24.07	0.0033	-35.11
			-0.0018	19.05	-0.0024	25.8
					0.0026	-27.87
					-0.0019	19.86

Table 6 (continued)

	Economic model		Economic + sociodemographic model		Economic + sociodemographic + health model	
	Coefficient	Percentage	Coefficient	Percentage	Coefficient	Percentage
Assets						
	No	10.22	-0.0013	14.15	-0.0012	13.13
	1-2	0.0036	0.0066	-70.06	0.006	-64.13
Age	More than 2	0.005	0.0054	-56.98	0.005	-53.66
	60-69		-0.0037	39.61	-0.0031	32.49
	70-79		0.0017	-17.79	0.0017	-17.65
	80 and above		0.000	0.02	-0.0001	1.16
Education	No		-0.0111	117.88	-0.01	106.27
	1-5 years		-0.0004	4.66	-0.0004	4.76
	6-10 years		0.0001	-0.78	0.0001	-0.75
	More than 10 years		0.0007	-7.42	0.0006	-6.82
Marital status	Currently in marital union		-0.0037	39.41	-0.0034	35.64
	Widowed		-0.0017	17.87	-0.0007	7.96
	Not in marital union		0.0003	-3.03	0.0002	-2.32
Living Arrangement	Living with children and others@		0.0053	-56.81	0.0048	-50.58
	Living with spouse and others		-0.0008	8.6	-0.0008	9.01
	Living alone		-0.0001	1.33	0.000	0.5
Religion	Hindu		0.0021	-22.47	0.0011	-11.22
	Muslim		-0.0012	12.38	-0.0008	8.37
	Others		0.0011	-11.32	0.0008	-8.47
Caste	Other than OBC/SC/ST		-0.0018	19.59	-0.0015	15.61
	OBC		0.0004	-4	0.0001	-1.01
	SC/ST		0.0017	-18.38	0.0016	-16.57

Table 6 (continued)

	Economic model		Economic + sociodemo-graphic model		Economic + sociodemo-graphic + health model	
	Coefficient	Percentage	Coefficient	Percentage	Coefficient	Percentage
Residence						
Self-rated health						
Activity of daily living						
Chronic conditions						
Constant	-0.0192	203.98	-0.0131	139.58	-0.0077	81.57

® reference category, SC schedule caste, ST schedule tribe, OBC other backward class

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Data Availability The data used in this study is freely available and easily accessible for researchers through IIPS LASI Study (<https://www.iipsindia.ac.in/lasi/>).

Declarations

Competing Interests The authors have no conflict of interest.

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