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Food insecurity and experience of ill treatment among older adult widows in India

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Food insecurity and experience of ill treatment among older adult widows in India

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Abstract

Objective: The objective of this study is to examine the association between severe food insecurity and ill treatment of elderly widows

Data and methodology: The present study used data from the longitudinal ageing study in India (LASI) wave-I. LASI is a national and state representative longitudinal study of ageing and health. The present study is conducted on women widows respondent's age 45 years and above. The total sample size of widows to the present study was 10,697 out of total 14593 widowhoods (11819 widows and 2774 widower). The present study used bivariate analyses and multivariate logistic regression to measure prevalence of severe food insecurity among widows after controlling several confounding individuals, household and life style predictors. The empirical analysis has been done using the Stata 16 software. **Result:** The overall prevalence of severe food insecurity was about 10% among widows in India. Widows who felt ill-treated in the household and out of household, 26% reported they faced problem of severe food insecurity because enough food was not in the home. The results of multivariate logistic regression revealed the adjusted association between severe food insecurity and lower socioeconomic and disadvantageous predictors. Widows who experienced ill-treatment in the past one year were more likely to be at risk of severe food insecurity than those who did not experience ill-treatment (OR, 3.13; 95% CI, 2.50, 3.92). Other individual and household and community factors like MPCE quintile, ethnicity, years of schooling, self-rated general health, mobility and restriction in activity of daily living, place of residence, current age all these factors were also significantly associated with the food insecurity among widows. **Conclusion:** Widows are a dual marginalised subgroup of the population. The study suggests that ill-treatment with widows increases the risk of severe food insecurity and both may affect the wellbeing of widows. Widows is very destitute subgroup of the population, where rarely recognised their wellbeing problems by the previous studies. This study recommendation for the intervention to reduce the risk of food insecurity among widows through empower their status through make supportive policy and programme.

Key words: Severe food insecurity, ill-treatment, elderly, widows, India

INTRODUCTION

Food insecurity is a broader concept which can not only be implicitly understood solely as a whole entity but can be recognised as an important determinant of nutritional status and health of an individual, household and community at large. According to FAO, food security exists when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life. In contrast, food insecurity reflects that the uncertainty of having or the inability to acquire adequate food intake for all household members and it appears in large part as the lack of sufficient resources to obtain food in social acceptable way (Anderson, 1990). High rates of population growth and poverty along with the environment of fragile ecosystems plays a pivotal role in prevalence of food insecurity (FAO, 2000). Studies have listed the major factors contributing towards food insecurity includes low income, poverty, social class, and ethnicity**.** Deeming (2011) concluded that the risk of having food insecurity among older adults were more prevalent among low-income households, the oldest-old, older adults from black and minority ethnic groups, and those with a disability and men/women living alone. A qualitative study on older women (Green et al., 2012) have shown that food insecurity is determined by income adequacy, transportation, health/health problems, community program use, availability of family and friends, and personal food management strategies. Food insecurity among older adults aged 60 years and above were more likely to be associated with functional impairments, social isolation (Sharkey, 2004) and living arrangement (Quine & Morrell, 2005; Radermacher et al., 2010). Gender, racial or social ethnicity and dependency influenced the food availability in the old age (Keller et al., 2006; Shannon et al., 2015; Frongillo et al., 2003; Nord, 2003; Green-LaPierre et al., 2012; Ahn et al., 2014).

The World Health Organization defines, elder abuse 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" (WHO, 2008). In 2002, World Health Organization published the Toronto Declaration on the Global Prevention of Elder Abuse which stated ''Elder abuse is the violation of human rights and a significant cause of injury, illness, loss of productivity, isolation and despair (World Health Organization, 2002). Elder abuse represents an extensive and serious problem, which is associated with devastating individual consequences and societal costs (Pillemer et al., 2016). With increasing proportion of elderly population, the incidence of elder abuse has been increasing. This increase is common in both developed and developing countries (Sooryanarayana et al., 2013). Evidence from the developed and developing countries has shown, the elderly population is often marginalized, economically dependent, and isolated which makes them vulnerable to neglect and abuse. (Lachs & Pillemer, 2004; Soneja, 2011; Help Age India Report, 2018). The possible confounding factors of ill-treatment may be new family formation, living arrangements, disability both physical and mental, low cognitive and functional ability, low economic power of the elderly population, the stress and problems of the caregiver in a situation of dependency, personal problems and the prior existence of patterns of violence (Acierno et al., 2010; Chokkanathan & Lee, 2006).

Review of existing literature

Earlier literature have indicated the association between food security and health of the adult population. For instance Arenas et al., (2019), Goldberg & Mawn., (2015) and Gundersen & Ziliak., (2015) noted through systematic reviews and meta-analysis that the prevalence of food insecurity among adult population is significantly associated with depression, anxiety and sleep disorder. Leung et al., (2020) indicated a strong relationship between food insecurity and multiple chronic conditions and physical health among older adults of US. Seligman et al., (2010) noted that food insecurity had a strong association with self-reported hypertension and hyperlipidemia in adults aged 18-60 years. Stuff et al., (2004) has shown a significant association between food insecurity and self-reported mental, physical, and general health status. Seligman et al., (2007) reveals that food insecurity increases the risk of diabetes among adults. Russell et al., (2016) has shown that food insecurity and having poorer diet quality were associated with reduced HRQoL after adjusting for a range of socio-demographic and health factors. Fernandes et al., (2018) found that odds of chronic disease (diabetes mellitus, pulmonary diseases, cardiac disease and obesity) were higher among older adults living in the food insecure household and this study also showed that older adults in food-insecure households had lower health-related quality of life. Kihlström et al., (2019) concluded that food insecure older adults had greater chances of reporting physical illness, limited physical activity and functional mobility.

It is well known that the proportion of older adults has been gradually increasing in India. This is the consequence of improving demographic indicator such as decline in rate of mortality and fertility and improving the access of health facilities and services (Nagarajan et al., 2021; Cramm et al., 2015; Bloom et al., 2010). UN population division projects that the percentage of elderly will be increasing from 8.6% (102 million) to 19.5% (319 million) of the total population by 2050 in India ((UN Population Division, 2019). The classification of the older adults by marital status is an important demographic composition especially among the destitute groups. The mortality rate has always been high in men than women. Traditionally, Indian women are married to more aged men. The life expectancy at the birth and at all ages are not in favour of men compared to the women (Singh & Ladusingh., 2016; Seifarth et al., 2012). Women have tendency of more years of survival than men, after death of their spouses and trend of remarriage is lesser among women than men. These confounding factors are increasing the proportion of women widows in the elderly population than men widower in India. The number of widowed was 4.3% (4.4 million) of total population (102 crore) in 2001 (Census of India, 2011). In 2011, the proportion of widowhood was 4.6% (1.0% men and 3.6% women) of total population of India (Census of India, 2011). Further 2011 census data provided age wise distribution of marital status which showed that 31.5% population of older adults were widowed. However, among widowed older adults, 22.8% were men and 72.2% were women in 2011. Though widowhood is significantly associated with a wide range of deprivation and vulnerability in India, widowed older adults have not been recognised in the earlier literatures as other sub-groups of the population.

There are wide-ranging research's on well-being of widows in India that is measured by poverty and income (Chen & Dreze., 1995; Dreze & Srinivasan.,1997; Garroway., 2013; Lloyd-Sherlock et al., 2015; Jegan., 2020). However, some other studies show well-being of this population group through health and nutrition status (Chen & Drèze., 1992; Jensen., 2007; Sreerupa & Rajan ., 2010; Mohapatra., 2011; Mohindra et al., 2012; Pandey & Jha., 2012; Agrawal & Keshri., 2014; Lloyd-Sherlock et al., 2015; Perkins et al., 2016; Perkins et al., 2018) and social security, vulnerability and living arrangement (Chandra., 2011; Kadoya & Yin., 2015; Wilder., 2016; Gupta & Sekher., 2018), remarriage (Johnson & Shyamala., 2012), etc. Unfortunately, rarely studies have recognized food availability in the household for the widows which is an important determinant of well-being in ageing. The present study aims to examine the prevalence of food availability and its association with confounding factors among older and elderly widows in India. The main hypothesis of the study is that food insecurity is more among the widow who faced ill-treatment.

DATA AND METHODOLOGY

The present study used data from the longitudinal ageing study in India (LASI) wave-I. LASI is a national and state representative longitudinal survey. LASI is a biennial panel survey that provide information for older adult (aged <45 years and above) on disease burden & risk factors, health care and health care financing, family, social network and social welfare programmes for the elderly, income, wealth, expenditure, employment, retirement and pension. In addition, information on household food availability was also collected. The LASI was conducted during the year 2016-19. The LASI served over 72000 individual age 45 and above across all states and union territories of India. The main objective of the LASI is to study the health status and the social and economic well-being of older adults in India. LASI has adopted a multistage stratified area probability cluster sampling design to arrive at the eventual units of observation: older adults age 45 and above and their spouses irrespective of age. The present study is conducted on women widows respondent's age 45 years and above. The total sample size of widows to the present study was 10,697 out of total 14593 widowhood (11819 widows and 2774 widower).

Dependent Variable

LASI Wave-I collected information on food availability by three different instrument. Questions were asked to respondent, "In the last 12 months, did you ever reduce the size of your meals or skip meals because there was not enough food at your household", "In the last 12 months, were you hungry but didn't eat because there was not enough food at your household" and "In the past 12 months did you ever not eat for a whole day because there was not enough food at your household". LASI refers severe insecurity of food means in the past 12 months if household members had to reduce the size of meals, were hungry but did not have enough food, or did not have food for a full day because food was unavailable. Based on these information, the present study dichotomised the response into two category 0 to not severe food insecurity and 1 for severe food insecurity.

Key explanatory variable

In the present study, the key explanatory variables included are MPCE quintile categorised as richest, richer, middle, poorer, and poorest, living arrangement categorised as living with children, living with others and living alone, working status divided into three categories as currently working, ever worked and never worked, receiving financial help from the household spilt as yes and no, completed education was categorized as 10 or more years, 5-9 years, less than 5 year and no schooling, Possessing of ration card categorised as having no card, having BPL card and Others type of ration card. The size of household spilt as 1-2 member, 3-4 member and 5 and more member. Apart from these, the location of household i.e. in rural area or urban area, age of widows categorised as 45-59 years, 60-70 years and 71 years and above, the ethnicity of respondent spilt as schedule caste, schedule tribe, other backward caste and others, religion divided into three category as others, Muslim and Hindu were the major demographic variables used as dependent variable. The study has also incorporated health aspect of the elderly widow as dependent variables. These include reporting of self-rated health divided into three categories as good, moderate and poor, difficulty in mobility and ADL or IADL categorised as binary variables. Ill treatment with respondent was a binary variable coded as respondent felt ill-treated in the past year or not have also been used.

Statistical Method

The present study used bivariate analyses to measure relationship between severe food insecurity in widows (dependent) and independent categorical variables. Multivariate logistic regression was used to measure the association between food insecurity and categorical independent variable. The entire analysis has been done using the STATA 16 software.

RESULTS

The present study analyses the relationship between severe food insecurity among widows and independent variable. The overall prevalence of severe food insecurity was about 10% among widows in India. Widows who felt ill-treated in the household and out of household, 26% reported they faced problem of severe food insecurity because enough food was not in the home ($p<0.00$). The result revealed that the incidence of the severe food insecurity among widows was more than 10 % in both poorer quintile 11% ($p<0.00$) and poorest quintile 13% ($p<0.00$). Widows who were living alone reported 16% ($p<0.00$) severe food insecurity. Widows living in rural (11.8%, $p<0.00$) area suffered more from severe food insecurity compared to their urban counterparts (6.8%). Those widows who reported their self-rated health as poor (14.5%) suffered more from severe food insecurity. Overall the included probable predicators of severe food insecurity among older widows are statistically significant.

The results of multivariate logistic regression showing the association between severe food insecurity and independent variable is presented in Table 2. Widows who experienced ill-treatment in the past one year were more likely to be at risk of severe food insecurity (OR, 3.13; 95% CI, 2.50, 3.92) than those who did not experience ill-treatment. The widows from the poorest MPCE quintile had higher risk of severe food insecurity (OR, 2.06; 95% CI, 1.62, 2.61) compared to those from highest MPCE quintile. Widows who never worked were less likely to have severe food insecurity (OR, 0.49; 95% CI, 0.41, 0.60) than who were currently working. Widows with no schooling were more likely to be at the risk of severe food insecurity (OR, 2.02; 95% CI, 1.27, 3.23) compared to those with 10 years and above schooling. Widows of the rural area were more likely to be at risk of severe food insecurity (OR, 1.29; 95% CI, 1.09, 1.53) than widows of urban area. Older adult age 45-60 years were more likely to be at risk of severe food insecurity compare with the eldest (OR, 1.53; 95% CI, 1.24, 1.89). Widows of ST (low ranking of ethnicity) were at higher risk of severe food insecurity (OR, 1.26; 95% CI, 1.00, 1.58) compare with general caste. Muslim widows had higher risk of severe food insecurity (OR, 1.47; 95% CI, 1.09, 1.99) than reference group. Widows who reported poor health (self-reported heath status) were more likely to be at risk of severe food insecurity (OR, 1.70; 95% CI, 1.39, 2.08) than widows who reported good health condition. Widows with mobility problem were more likely to be at risk of severe food insecurity (OR, 1.48; 95% CI, 1.27, 1.74) than who have no mobility restriction. Those who has difficulty with at least one activities of daily living were more likely to be at risk of severe food insecurity (OR, 1.91; 95% CI, 1.50, 2.42) than who had no difficulty in activities of daily living. Widows who possessed BPL ration card were more likely to be at risk of severe food insecurity (OR, 1.14; 95% CI, 0.98, 1.34) than who possessed others type of ration card. Widows of 1-2 member of household were more likely to be at risk of severe food insecurity (OR, 2.30; 95% CI, 1.85, 2.86) than widows of 5 or more member of household.

DISCUSSION

The present study has analysed the association between severe food insecurity among widows (45 years and above) and their confounding factors in India, and in our knowledge this study may be first that provides estimates of severe food insecurity among the widows on nationally representative sample of older adults. The major key finding of the study is higher odds between severe food insecurity and ill-treatment towards the widows. Apart from this, the findings shows that severe food insecurity was associated with monthly per capita consumption expenditure (MPCE) quintile and ethnicity, health status (self-rated health, mobility restriction and difficulties in doing daily activities) of widows, size of the household and possessing of ration cards were also associated with the severe food insecurity among widows.

The present study assesses the prevalence of severe food insecurity with socio-bio-demographic characteristic of widows. Findings shows that prevalence of severe food insecurity was 10% among widows, which is higher than the national average (8%). This study revealed that widows who experienced ill-treatment (misbehaviour) in the last 12 months prior to the survey had statistically higher odds of severe food insecurity after controlling all socio-bio demographic factors. The ill-treatment experienced by the widows are in the form of verbal abuse, disrespect, physical abuse, economic exploitation, negligence and emotional or psychological exploitation. These kind of mistreatment may happen anywhere either inside or outside the household. Some of widows may experience ill-treatment frequently, sometime and occasionally. Therefore, there is possibility that severe food insecurity among widows may be determined by different form of ill treatment. To our knowledge, there is lack of evidence on the association between food insecurity and ill treatment of older adult or older widows globally or in India, specifically. Instead of widows, some studies (Power, 2006; Ribeiro-Silva et al., 2016; Diamond-Smith et al., 2019) evaluated relationship between food insecurity and intimate partner violence among married women. These studies concluded that food insecurity is significantly associated with increased odds of experiencing emotional or physical intimate partner violence. In India, widows are more vulnerable to ill-treatment because of their comparatively lesser bargaining power in society (Gupta & Sekher., 2018). Earlier studies have also concluded that widows in India face various economic constraints and have poor health and nutritional status (Chen & Drèze., 1992; Jensen., 2007; Sreerupa & Rajan ., 2010; Mohapatra., 2011; Mohindra et al., 2012; Pandey & Jha., 2012; Agrawal & Keshri., 2014; Lloyd-Sherlock et al., 2015; Perkins et al., 2016; Perkins et al., 2018). Our study finds that the association between food insecurity and ill-treatment is relevant as earlier studies have mentioned risk of ill-treatment more among widows particularly belonging to low economic households.

Findings of this study show that poorer and poorest widows were more likely to be vulnerable to the severe food insecurity compare to richest widows. This finding is supported by previous studies that found higher risk of food insecurity among older person of low income household (Deeming,2011; Fernandes et al., 2018; Green et al., 2012; Bhargava et al., 2012; Chung et al., 2011; Nord & Kantor, 2006; Wolfe et al., 2003). This study also found significant association between ethnicity and food insecurity as widows of Schedule tribe (low status ethnicity group) were at higher risk of severe food insecurity than general caste (high status group). Earlier studies have also found the prevalence of insecurity more among older adults belonging to ethnic groups (Alley et al., 2009; Deeming, 2011; Goldberg et al., 2014; Sharkey & Schoenberg, 2005). In-addition our finding that widows with no schooling were at higher odds for severe food insecurity compare to their counterparts is consistent with findings of previous studies that found strong association between food insecurity among older adult and low level of education attainment (Alley et al., 2009; Goldberg et al., 2014; Fernandes et al., 2018).

This study found strong association between severe food insecurity and health status of older widows. Findings revealed that poor health of widows increased the risk of severe food insecurity. This finding is supported by the previous studies (Temple, 2006; Russell et al., 2014; Leung et al., 2020). Quine & Morrell., (2006) revealed food insecurity among older Australians had association with their self-reported general poor health condition. Temple (2006) also shows a strong association between self-reported condition of poor wellbeing and food insecurity among older persons. Leung et al., (2020) concluded that food insecurity was also associated with the lower self-reported health status among older US adult. Other health issues as mobility problem and restriction of activities of the daily living among widows had more vulnerability of severe food insecurity among widows. These findings are supported by previous evidence that shows food insecurity among older adult were associated with their health condition like ADL/IADL and disease and other health problems (Lee & Frongillo., 2001; Wolfe et al., 2003; Chung et al., 2012; Altman et al., 2020).

Outcomes of the present analysis show significant association between food security and size of household as well as types of ration card. Widows who live in small household size (1-2 member) and possess of BPL ration card were more likely to suffer from severe food insecurity, because there was not enough food in the household in the past 12 months. In India, there has been tradition of living with intergenerational family, in recent years elderly living alone or only with their spouse has increased in recent years with change in family structure, rapid urbanization and out-migration of younger adults (Sathyanarayana et al., 2014; Samanta et al., 2015). The previous studies has shown similar finding that elderly food insufficiency determined by the poverty and participation in food social assistance programme (Klesges et al., 2001; Nord & Kantor, 2006).). In addition, BPL card has been used to identify a household as below the poverty line by local agencies with the guidelines of the ministry of rural development of the government in India to availing different types of social security scheme (Ram et al., 2009; Drèze & Khera, 2017).

There are some limitation of this study that should be noted. This analysis has not covered all age of widows population, it include only widows 45 years and above and exclude widows who were under 45 years widows. Second, India is a country with strong culture and tradition and here widows live at the religious places, especially Hindu widows, so this analysis has not collected information on those who live in widow ashram (spiritual hermitage or a monastery in Indian religions). Third, present study used cross sectional data, so it cannot be recognised, resulting in the fact that the study evaluates associations rather than cause-and-effect relationships between the variables. Fourth, information of the food insecurity and experience of ill-treatment on respondent were both collected for the previous 12 months. Recalling of particular is quite difficult. In addition, mistreatment with widows in India is always underreported due to social stigma particularly in case of sexual misbehaviour.

Conclusion

The present study contributes toward understanding of prevalence of food insecurity among widows and its association ill-treatment after controlling for several socio-bio demographic characterises. The study suggests that ill-treatment with widows increases the risk of food insecurity and both may affect the wellbeing of widows. Other socio-bio demographic variable MPCE quintile, ethnicity, years of schooling, self-rated general health, mobility and restriction in activity of daily living, place of residence, current age all there factor were associated with the food insecurity among widows. These outcomes are significant for the widows across the Indian subcontinent and poor setting countries. Unfortunately there is no programme regarding food insecurity and wellbeing for widows in India. Widows is very destitute subgroup of the population, where rarely recognised their wellbeing problems by the previous studies. This study recommendation for the intervention to reduce the risk of food insecurity among widows and empower their status through make supportive policy and programme. Further this study suggest, we need more exploration to understand relationship between food insecurity and ill-treatment among widows.

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Table 1: Prevalence of severe food insecurity among widow in India

Ill treatment	No	Yes	$\chi 2$	p value	Number
No	90.75	9.25	198.34	p<0.00	10,105
Yes	73.63	26.37			592
MPCE quintile					
Richest	91.51	8.49	58.31	p<0.00	1,632
Richer	92.46	7.54			1,928
Middle	91.53	8.47			2,133
Poorer	88.72	11.28			2,395
Poorest	86.33	13.67			2,609
Living arrangement					
With child	91.5	8.5	81.24	p<0.00	8,043
With others	86.39	13.61			1,116
Living alone	83.35	16.65			1,538
Working status					
Currently working	83.99	16.01	94.97	p<0.00	2,565
Ever worked	89.14	10.86			3,776
Never worked	93.79	6.21			4,356
Financial support					
Yes	88.32	11.68	4.77	p<0.029	1,755
No	90.09	9.91			8,942
Schooling in years					
>10 years complete	98.31	1.69	51.60	p<0.00	638
5-9 years complete	93.14	6.86			1,198
<5 years complete	89.76	10.24			939
No schooling	88.61	11.39			7,922
Place of residence					
Urban	93.17	6.83	33.47	p<0.00	3,408
Rural	88.22	11.78			7,289
Current age					
70 & above	92	8	9.90	p<0.07	3,664
60-70 years	88.76	11.24			4,229
45-59 years	88.49	11.51			2,804
Caste					
General	92.8	7.2	30.33	p<0.00	2,479
OBC	90.62	9.38			4,853
SC	87.74	12.26			1,026
ST	85.81	14.19			2,340
Religion					
Others	88.28	11.72	6.00	p<0.05	726
Muslim	87.67	12.33			974
Hindu	90.15	9.85			8,998
Self-rated health					
Good	93.12	6.88	61.32	p<0.00	2,934
Moderate	90.22	9.78			5,031
Poor	85.45	14.55			2,732
Mobility problem					
No	91.38	8.62	34.22	p<0.00	6,511
Yes	87.34	12.66			4,186
Activities of daily living					
No	90.28	9.72	51.33	p<0.00	9,923
Yes	83.62	16.38			774
Types of ration card					
Others	91.42	8.58	27.02	p<0.00	4,110
No card	90.1	9.9			1,457
BPL	88.41	11.59			5,130
Household size					
5+	92.98	7.02	115.36	p<0.00	5,620
3-4	89.51	10.49			2,445
1-2	83.26	16.74			2,631
Total	**89.8**	**10.2**			**10,697**

Table 2: Multivariate regression on severe food insecurity among widows in India

	[Odds Ratio]	[95% CI]
Ill treatment		
No®		
Yes	3.13***	[2.50, 3.92]
MPCE quintile		
Richest®		
Richer	0.96	[0.74, 1.24]
Middle	1.24*	[0.97, 1.59]
Poorer	1.47***	[1.15, 1.88]
Poorest	2.06***	[1.62, 2.61]
Living arrangement		
With child®		
With others	1.17	[0.93, 1.46]
Living alone	1.09	[0.85, 1.39]
Working status		
Currently working®		
Ever worked	0.67***	[0.56, 0.81]
Never worked	0.49***	[0.41, 0.60]
Financial support		
Yes®		
No	0.97	[0.81, 1.16]
Schooling in years		
>10 years complete®		
5-9 years complete	1.55*	[0.94, 2.54]
<5 years complete	1.73**	[1.04, 2.88]
No schooling	2.02***	[1.27, 3.23]
Place of residence		
Urban®		
Rural	1.29***	[1.09, 1.53]
Current age		
70 & above®		
60-70 years	1.38***	[1.16, 1.65]
45-59 years	1.53***	[1.24, 1.89]
Caste		
General®		
OBC	1.05	[0.86, 1.28]
SC	1.03	[0.80, 1.32]
ST	1.26*	[1.00, 1.58]
Religion		
Others®		
Muslim	1.47**	[1.09, 1.99]
Hindu	0.98	[0.78, 1.24]
Self-rated health		
Good®		
Moderate	1.26**	[1.05, 1.50]
Poor	1.70***	[1.39, 2.08]
Mobility problem		
No®		
Yes	1.48***	[1.27, 1.74]
Activities of daily living		
No®		
Yes	1.91***	[1.50, 2.42]
Types of ration card		
Others®		
No card	1.27*	[1.00, 1.61]
BPL	1.14*	[0.98, 1.34]
Household size		
5+®		
3-4	1.39***	[1.15, 1.67]
1-2	2.3***	[1.85, 2.86]

Note: ®=reference category, *p<0.10; **p<0.05; ***p<0.01.