Employment status and life satisfaction among Indian elderly: From a gender perspective

Abstract

Work in old age has a positive impact on an individual's health, and so is overall well-being and life satisfaction. This paper attempts to understand the gender differential in the relationship between employment status and life satisfaction among the Indian elderly. In addition, this study also examines the relationship between occupational characteristics and life satisfaction among working elderly in India. The data for this study were utilized from the Longitudinal Ageing Study in India (wave-1). Descriptive statistics and ordinal regression analysis was applied. Findings show that women had a lower level of life satisfaction compared to men. Employment participation and annual income among women were much lower than lower. Most women worked as agricultural laborers and wage-salaried/family paid workers, whereas elderly men were involved in their own farm activities and own account business. Working men and women were negatively associated with higher life satisfaction. Men involved in manual work were negatively associated with better life satisfaction, whereas in the case of women elderly who involved in any occupation have lower life satisfaction than those who worked on their own farm. The study findings have practical implications for policy-makers and government to create job opportunities for women in young age and enhance work participation in old age. Meanwhile, improving public support for adults and financial security in old age will help for a better quality of life in old age.

Keywords: Elderly, Employment status, Life satisfaction, India

Introduction

The global population is ageing rapidly. The estimates indicate that there will be more older persons (over the age of 65 years) than under age population of 15 years by 2050. The numbers of older people will be higher in developing regions of the world (United Nations, 2019). India is not exceptional in line with current gerontological issues. India is the home of 17.5 percent of the world's population, with the sheer size of its ageing population. The share of elderly 60 years and above to the total population has grown from 5.6 percent in 1961 to 9.4 percent in 2017, and it is expected to increase 19.1% by 2050 (Agarwal et al., 2016; United Nations, 2017). Population ageing is proceeding inexorably in India with rising concern about the health and healthcare needs of an ageing population in the near future. Therefore, India should prepare for new challenges to improve well-being and care for its greying population (Mane, 2016). One prospective public intervention is to promote active and healthy ageing through engagement in productive work, social activities, and volunteering work in later life. It helps reduce the pressure on the healthcare system and social services (Agarwal et al., 2016; Mane, 2016; Tang et al., 2018). Older people also provide significant contributions to their families, communities, economy, and nation. Particularly, an individual's employment status has a strong influence on opportunities that enable people to be and do what they value throughout their lives, provide financial security, and maintain health and well-being (Adhikari et al., 2011; Tang et al., 2018; Walker, 2006).

Work participation is an important indicator for overall well-being of ageing process during the adult years (Burtless, 2013; Walker, 2006) and is discussed as one of the social determinants of health (Marmot & Wilkinson, 2005). The elderly are generally considered an emerging economic burden on the family and nation. They are assumed to withdraw from productive work and throw themselves into the extended stage of dissaving (Smith, 2012). Even so, elderly used to work to fulfill their daily basic needs and support their family. Thus, they give up working only when their health does not permit them (Adhikari et al., 2011; Ladusingh & Thangjam, 2018; Schofield et al., 2017; Smith, 2012; Tang et al., 2018). From a socioeconomic perspective, productive aging through work participation will empower elderly to better control their own lives and maintain health, solve their problem caused by an ageing society, greater life satisfaction and well-being for themselves and their families (Kim, 2013; Mishra, 1992; Tang et al., 2018; Walker, 2006).

Life satisfaction is defined as exceptions and perceptions of outcomes of major part of life such as social integration and relationships, self-esteem, social conditions and finances across multiple and broad domains in long term (Kane & Kane, 2004). Also, Mishra (1992) stated that life satisfaction indicates happiness of older people associated with their surrounding environment, activities, lifestyle and activities, and it has generally been studied in association with the quality of life of elderly (Mishra, 1992). Privous studies on life satisfaction in old age primarily focused on life satisfaction and determinants associated with it (Bowling et al., 2003; Michalos et al., 2007). Individual characteristics such as age, sex, socioeconomic factors, health and human relationship characteristics such as quality of social relationships and social integration are important determinants of life satisfaction (Bowling et al., 2003; Kim, 2013; Krueger et al., 2009; Ryan & Deci, 2001). Better cognitive health and well-being, self-assessed health and regular physical examination are significant predictors for promoting better life satisfaction among older adults (Jain et al., 2017; Ng et al., 2017).

In recent times, the concept of productive ageing and life satisfaction has been discussed. Even so, a little attention has been paid in interaction between productive activities in old age and life satisfaction. This study is differing from previous ones as it focuses on employment status and life satisfaction from a gender perspective. Employment status is associated with improved quality of life and over all well-being (Aquino et al., 1996; Hu & Das, 2018; Veenhoven, 2015). The subjective economic situation is highly relevant for happiness, particularly for life satisfaction among elderly (Haller & Hadler, 2006). Maintaining high levels of activity in old age has a positive impact on life satisfaction while low level is detrimental resulting in lower life satisfaction (Haller & Hadler, 2006; Hu & Das, 2018; Tang et al., 2018). Aligning with same arguments, evidences also indicate that older people who engage in productive or volunteering work have ability to control their environment and through this way, they can promote better life satisfaction and health (Kim, 2013; Mishra, 1992; Singh & Singh, 2020).

Most of the research is conducted in developed countries on employment status and life satisfaction, while limited research is available in low and middle-income countries (Banjare et al., 2015; Hu & Das, 2018; Ng et al., 2017; Singh & Singh, 2020; Tang et al., 2018). However, employment conditions are different from western countries to low and middle-income countries where the labour market faces major challenges such as higher unemployment rate, low female work participation and the majority of population engaged in informal sectors (Staudinger et al., 2016). Therefore, the findings of previous literature from

high-income countries may not be generalized in the context of low and middle-income countries (Staudinger et al., 2016). A study from India have identified the relationship between socio-economic status and life satisfaction, which indicates that economic status, income, and health are the key predictors for life satisfaction and well-being among older adults (Hu & Das, 2018; Jain et al., 2017). Financial difficulty and unemployment in older individuals are related to low life satisfaction (Jain et al., 2017; Ng et al., 2017). Working in old age can postpone poor health outcomes resulting in better life satisfaction. Despite the beneficial effects of working status, job characteristics such as wage, working hours and type of occupation also play an important role in life satisfaction (Staudinger et al., 2016). A meta-analysis showed that the association between income and life satisfaction is relatively small, as the quality of life in the elderly is not reduced by reduced income (Pinquart & Sorensen, 2001). Meanwhile, the interaction between productive work and life satisfaction change depending on cultural characteristics, gender and socioeconomic status (Kim, 2012). Previous literature discussed gender differences in the relationship between work characteristics and life satisfaction from a life cycle perspective and the role of gender differences in the socialization process (Atchley & Barusch, 2004). During the life cycle, women are disadvantageous positions as their participation is higher in domestic duties that is not documented by official statistics of labour force and have less opportunity to work than men, which eventually affects life satisfaction in old age (Ferrant et al., 2014; Srivastava, 2017).

Based on the above discussion and in compliance with productive ageing concept, work into old age has a positive impact on individual's health and so is over all well-being and life satisfaction. Due to lack of nationally representative data, there is a dearth of literature on life satisfaction of those elderly who participate in economic activities compared to those not working in late life. Thus, understanding the relationship between employment status, work characteristics and life satisfaction in later life is pivotal. This paper attempts to understand the gender differential in the relationship between employment status and life satisfaction among Indian elderly. In addition, this study also examines the relationship between occupational characteristics and life satisfaction among working elderly in India.

Methods

Data

Data for the present study were utilized from the first wave of Longitudinal Study of Ageing in India (LASI wave-1) conducted in the year 2017-2019. The survey was conducted by the

International Institute for Population Sciences (IIPS), Mumbai in collaboration with Harvard T. H. Chan School of Public Health (HSPH) and the University of Southern California (USC) under the stewardship of the Ministry of Health and Family Welfare (MoHFW), Government of India. LASI is a nationally and state representative longitudinal study of ageing and health that also covers the economic and social aspects of population ageing in India. The multistage stratified area probability cluster sampling method was used to select the sample. Within each state, a three-stage sampling design in rural areas and a four-stage sampling design in urban areas was adopted in the LASI wave-1. The details of sampling are provided in the LASI wave-1 report (IIPS, 2020). The study covered the total sample size of 72,250 individuals aged 45 years and above and their spouses, irrespective of their age. Of which, around 31,464 are elderly aged 60 years and above (International Institute for Population Sciences (IIPS), NPHCE, MoHFW, 2020). The data is collected from 35 states and union territories of India (excluding Sikkim). Additionally, this survey gathered the information for four selected cities of Delhi, Kolkata, Mumbai, and Chennai, representing the various region of India. The sample included for the present study was 30,367 older adults after dropping the missing data.

Outcome variable

The outcome variable of the study was life satisfaction which was based on the follow-up question to the respondents: (a) In most ways, my life is close to ideal; (b) the conditions of my life are excellent; (c) I am satisfied with my life; (d) so far, I have got the important things I want in life; and (e) if I could live my life again, I would change almost nothing. The response was recoded on seven-point scale- strongly disagree (1) to strongly agree (7). A composite index was constructed from the questions mentioned above ranging value from 5 to 35. High scores indicated higher level of life satisfaction (Singh & Singh, 2020). The scale of life satisfaction was found to be reliable as the Cronbach's alpha for the present sample was 0.899. For present study life satisfaction was categorised into three categories: having 5 to 20 is low satisfaction, 21 to 25 medium satisfaction and 26 to 35 is high satisfaction. Further, it was categorised into three category i.e. low, moderate and high life satisfaction.

Explanatory variables

The focus variable of the study was employment status and occupational characteristics of elderly population. Socio-demographic, economic characteristics and health related variables were included on the basis of previous studies from India (Banjare et al., 2015; Jain et al., 2017; Ladusingh & Thangjam, 2018; Singh & Singh, 2020).

1. Employment status was categorized into three categories: 'Never worked', 'Earlier worked but currently not working' and 'currently working'.
2. Occupation type was categorised into 5 broad categories based on the respondent's main occupation as reported by the respondents at the time of survey i.e. 'Farm/fishery/forestry (own/family) work', 'Agricultural labourer', 'Non-agricultural business owner', 'Own account worker', and 'Wage-salaried/Family paid worker'.
3. Respondents who had side job in addition to main job were categorized as no and yes.
4. Annual income was assessed through the question "What are your typical earnings from your main job, and from your side job?".
5. Keep working in future, as long as respondents can, was assessed through the question "at what age do you plan to stop working? Stopping work in this context shall refer to having stopped all income-related activities on a regular basis and having no intention of engaging in any income related activities seriously." The variable keep working in future was recoded as (no and yes).
6. Variation of hours in work was assessed through the question "Do you work the same number of hours nearly every week for the weeks you work, or do the hours you work vary a lot from week to week?" The response was coded as same each week and vary according to season (vary a little from season to season/ vary a lot from season to season/ vary a lot across week within a season)
7. Working months in a year for main job variable was measured through the question "How many months in a year do you usually work on this job?" The response was categorised as (for 6 months and more than 6 months)
8. Receiving Pension from previous work was recoded as (no and yes).
9. Age was recoded as (60-69 years, 70-79 years, and 80 years and above)
10. Years of schooling was categorized as (no schooling, 1-5 years, 5-10 years and more than 10 years)
11. Marital status was coded as (in marital union, widowed and not in marital union which include 'never married, divorced, separated).
12. Living arrangement was recoded as (with spouse and child, living alone, with spouse, and with child and others).
13. Social participation was asessed on the basis of question "Are you a member of any of the organizations, religious groups, clubs, or societies?" The response was recoded as (no and yes).

14. Financial Discrimination was assessed through the questions related to discrimination in day to day life. The response was recoded in no and yes.
15. Self-rated health (SRH) was recoded into two categories i.e. good (very good, good and fair) poor (poor and very poor).
16. Chronic conditions were recoded (no, having 1-2 and more than 2).
17. Place of residence was coded rural and urban.
18. Caste was recoded as Scheduled caste/Scheduled tribe (SC/ST), Other backward class (OBC) and Others.
19. Religion was categorized as Hindu, Muslim and Others.
20. Wealth index was measured using household consumption data and divided into five quantiles i.e. poorest, poorer, middle, richer and richest.

Statistical analysis:

Initially, descriptive statistics were performed to describe the variable of interest. The dependent variable (life satisfaction) is an ordinal variable, therefore, the appropriate technique for the analysis is ordinal regression model (Ng et al., 2017). We applied probit ordinal regression model to estimate the effects of selected variables on life satisfaction. Model-1 provides the estimates of life satisfaction and only work characteristics and model-2 is adjusted with all other covariates. All the analysis have been done separately for men and women. The data were analysed using STATA 14.

Results

Fig 1 presents the percentage distribution of employment status of elderly in India. About 51.31% and 22.39% of older men and women were currently employed respectively. It was found that elderly women had a lower work participation. Nearly 46.83% of elderly women were never engaged in paid work in their life whereas the same figure for men was 3.8%.

Fig. 1: Percentage distribution of employment status among elderly in India (N=30,367)

Fig 2 depicts the percentage distribution of occupational pattern of working elderly in India. About 34.25% of female elderly were engaged as farm/fishery/forestry works as against the corresponding figures of 43.51% for male elderly. Among working elderly, agricultural labourer and wage salaried/ family paid workers more among females (23.13% and 34.09%) than males (10.62% and 28.54%). Among the male working elderly 13.6% were handling own account works while among the females the respective figures were 7.19% respectively.

Fig. 2: Percentage distribution of occupational pattern among elderly in India (N= 10,466)

Compared with men (M=24.22, SD=7.22), women had slightly lower life satisfaction (M=23.68, SD=7.26). About 47.15% of male respondents rated their life as very satisfied whereas the same figure for female elderly was 44% (**Fig 3**).

Fig. 3: Level of Life Satisfaction among Indian elderly (30,367)

The descriptive statistics are presented in **Table 1**. About 10.69% of men were engaged in side job along with the main job, and the corresponding figures for women were 7.96%. The mean annual income for male elderly was much higher than female elderly. Surprisingly, 42.42% of men reported that they would keep working in the future as long as possible, and the same figures for women were higher (48.85%). Around more than two-thirds of the respondents reported seasonal variation in working hours. 72.03% of males worked in their main job for more than six months in a year while the respective figures for females were 57.85% respectively. About 10.70% of male elderly received a pension from their previous occupation while only 1.32% of women were in the same category. The mean age of the study population was 68.72. The majority of the women respondents were illiterate. A higher proportion of women were widowed as compared to men who were more likely to be currently married. A higher proportion of men were residing with spouse and children while about 8.57% of women were living alone. Men were more socially active than women. . Around 6% of the respondents reported that they were facing financial discrimination in their day to day life. One-fourth of

respondents rated their health as poor. More than three-quarters of the respondents were rural residents. The majority of the respondents were from OBC caste and Hindu religion.

Results from ordinal logistic regression of life satisfaction are presented in **Table 2**. We estimated two models of life satisfaction. Model-1 contained only employment status variables and model-2 contained employment status with other covariates. The findings show that employment status was significantly associated with life satisfaction. Gender differences were observed in estimation of life satisfaction and employment status. Male elderly who never worked (b=-0.156, SE=0.045, $p < 0.01$) and currently working (b=-0.105, SE=0.020, $p < 0.01$) were less likely to have higher life satisfaction compared to those earlier worked but currently not working. On the other hand, female elderly who never worked (b= 0.04, SE= 0.021. $p <0.1$) were more likely to have higher life satisfaction while those currently working (b= -0.057, SE= 0.025. $p <0.01$) were less likely to report higher life satisfaction than those earlier worked but currently not working (Model-1). After controlling other covariates, changes in magnitude for life satisfaction and employment status were observed for both men and women (Model-2). We found that receiving pension from work, age, education, facing financial discrimination, reporting poor health, having chronic conditions, caste, religion and wealth index were statistically significant predictors of life satisfaction. Social participation had no effect on life satisfaction. Similar findings were observed for both men and women. Increasing age and education were positively associated with higher life satisfaction both among men and women. The chances of being in higher life satisfaction category for those women who were not in the marital union (b= -0.265, SE= 0.129, $p <0.05$) was less than those who were currently married. Male elderly those living alone (b= -0.439, SE= 0.116, $p <0.01$) and with spouse only (b= -0.048, SE= 0.024, $p< 0.05$) were less likely to report higher life satisfaction.

To further understand how work characteristics were associated with life satisfaction, ordinal probit regression was employed for the currently working elderly population and presented in **Table 3**. Male elderly who engaged as an agricultural labourer (b= -0.233, SE= 0.052, $p <0.01$) and wage-salaried workers (b= -0.148, SE= 0.039, $p < 0.01$) were less likely to report higher life satisfaction than those work in their own farm or family whereas, in terms of working female elderly, women engaged in all the occupation were negatively associated with higher life satisfaction compared to those work in their own farm or family. Women having side job with main job were less likely to perceive better life satisfaction. Findings also indicate that one unit increase in log annual income of men will be result in 0.052 unit increase in log odds

of higher life satisfaction. After controlling for other socio-demographic and economic characteristics, work type had a similar association, but the magnitude of the association changed (Model-2). We found that among working older who were receiving pension from their previous job, education, residence and wealth index were significantly positively associated with higher life satisfaction. On the other hand, living arrangements, facing financial discrimination, reporting poor health, caste, and religion were negatively related to life satisfaction for both men and women. Marital status did not emerge as a significant predictor of life satisfaction among working elderly population.

Discussion

The present study is an attempt to provide evidence and policy inputs for the promotion of overall well-being in old age through the productive ageing and economic activities of elderly from a gendered perspective in India. In Indian context, economy is pre-dominant by agrarian and farm work with no social and financial security for later life, consequently, a considerable number of elderly population were engaged in paid work in old age until physically feasible. Traditionally, India has patrilineal and patrilocal kinship, a joint family mechanism where the family takes care of the elderly, also these beliefs and practices strongly discriminate against women. In recent time, the gendered nature of ageing is such that women tend to live longer than men with fewer economic resources because of lifetime disadvantages in educational attainment, employment opportunities and inheritance rights. The social security system for older population is also weak for elderly population, especially elderly women are rely on unpaid work such as performing household activities for their family members in exchange for old-age support (Bloom et al., 2010; Hu & Das, 2018; Selvaraj et al., 2014). Using nationally representative data, we found gender differential in employment status, occupational characteristics and their relationship with life satifaction.

In line with previous studies from India (Ladusingh & Thangjam, 2018; Selvaraj et al., 2014), the empirical evidence from the present study shows that paid work participation and annual income among females is much lower than their male counterparts. The findings also suggested that most women worked as agricultural laborers and wage-salaried/family-paid workers whereas elderly men were involved in their own farm activities and own account business. It is indicative that women are still in the disadvantaged group in terms of education, discriminated in the labor market for employment and wage compared to men (Agarwal et al.,

2016; Chaudhary & Verick, 2014; Selvaraj et al., 2014). As a result, women are not able to enjoy intrinsic aspects of working and have lower life satisfaction than men.

On considering the association between employment status and life satisfaction, findings indicate that working men and women were negatively associated with higher life satisfaction. The possible explanation could be that elderly who worked in old age due to compulsion not by their choice. This finding also supported the fact that elderly with financial security have greater life satisfaction because they have financial security and resources to mitigate life's challenges (Pinquart & Sorensen, 2001). One of the interesting findings is that elderly women who never worked were positively associated with higher life satisfaction. These finding shed some light on the fact that although women's socio-economic status has improved in recent year, even so, they are mainly responsible for household chores and family caregiving and portrait their life satisfaction within their family which more than compensate for gainful work (Haller & Hadler, 2006). Also, women who never worked in their life might have strong educational and financial background (Chaudhary & Verick, 2014), this makes the group of never working women more satisfied in their life.

Our findings indicate that men involved in manual work are negatively associated with better life satisfaction, whereas in case of women elderly who are involved in any occupation have lower life satisfaction compared to those who worked in their own farm. Income poverty in old age could be possible explanation for this finding and elderly are engaged in the workforce for their economic necessities rather than personal preferences (UN DESA, 2015). Particularly in rural areas, families suffer from economic crises because their occupation does not produce income throughout the year (Adhikari et al., 2011; Selvaraj et al., 2014). Our study also reported positive impact of income and receiving pension from previous occupation for better life satisfaction. In general term, this finding is explained by the fact that financial stability and income from pension are strongly related to overall well-being and life satisfaction as they have greater access to services and resources and better adjustment process in old age (Aquino et al., 1996).

In addition, characteristics of the study sample such as higher education, being married and living with spouse and children and belonging from higher wealth quantile tend to greater life satisfaction and well-being. Findings are consistent with previous studies (Banjare et al., 2015; Meggiolaro & Ongaro, 2015; Oshio, 2012; Singh & Singh, 2020). Our findings also support previous research confirming health plays an important role in perceiving their lives as satisfied

(Banjare et al., 2015; Ng et al., 2017; Oshio, 2012). Indeed we find poor self-rated health as significant risk factor for better life satisfaction because it allows one to pursue valued goals and to engage in satisfying activities. Urban residents had higher life satisfaction than their rural peer group for both men and women. This could explain, in a way that fewer urban elderly are involved in paid work due to wider coverage of pension and financial security, modern facilities and good infrastructure related to healthcare resulting in better life satisfaction (Hu & Das, 2018; Ng et al., 2017).

Limitation

This study has several limitations. It is very difficult to establish a strong claim about causality between employment status and life satisfaction from cross-sectional nature of the data. Second, the analysis could not include other important factors such as social security program, work history, payment type, etc. Also, samples for work characteristics were missing. Hence, we cannot fully examine the gender differences in employment status, work characteristics and life satisfaction.

Conclusion

To sum up, the findings indicate that life satisfaction is lower among working elderly in comparison to those who previously worked and having financial security in old age is related to higher life satisfaction. The study's findings have practical implications for policy-makers and government to create job opportunities for women at a young age and enhance work participation in old age. Meanwhile, improving public support for adults and financial security in old age will help for better quality of life in old age. Therefore, it is essential to focus on social policies to improve financial security and empowerment of the elderly across the life course, at different levels, which will affect socio-economic development in the coming years. Policy intervention should be aimed at promoting quality of life and healthy ageing through productive engagement and meaningful engagement in activities of their choice in old age.

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Table 1: Summary Statistics of key variables of the study, India, 2017-2018.

Background Characteristics	Men (n=14,552)	Women (n=15,815)
	M (SD)/n (%)	M (SD)/n (%)
Individual Characteristics		
Life satisfaction	24.22 (7.22)	23.68 (7.26)
Having side job		
No	6371 (89.31)	3112 (92.04)
Yes	752 (10.69)	234 (7.96)
Mean annual income	198955.1	96937.19
Keep working in future		
No	3035 (57.58)	1317 (55.15)
Yes	3218 (42.42)	1659 (48.85)
Variation of hours in work		
Vary according to season	4778 (70.6)	2424 (72.59)
Same each week	2308 (29.4)	915 (27.41)
Working months in a year for main job		
For 6 months	1988 (27.97)	1312 (42.15)
For more than 6 months	5087 (72.03)	2023 (57.85)
Receiving Pension from previous work		
No	12,704 (89.30)	15,538 (98.68)
Yes	1848 (10.70)	278 (1.32)
Age	68.9 (7.24)	68.5 (7.46)
Years of schooling		
No	5235 (38.47)	10987 (72.51)
1-5 years	3257 (22.72)	2407 (13.13)
5-10 years	4115 (25.74)	1814 (11.21)
More than 10 years	1945 (13.07)	607 (3.15)
Marital status		
In marital union	11991 (81.16)	7374 (44.56)
Widowed	2179 (16.44)	8042 (53.55)
Not in marital union	382 (2.41)	399 (1.89)
Living arrangement		
With spouse and child	8354 (55.68)	4866 (28.6)
Living alone	350 (2.46)	1212 (8.57)
With spouse	3514 (24.8)	2404 (15.4)
With child and others	2334 (17.06)	7333 (47.43)
Social Participation		
No	13273 (93.95)	14993 (96.36)
Yes	1279 (6.05)	822 (3.64)
Financial Discrimination		
No	13773 (93.45)	15014 (93.8)

Yes	779 (6.55)	801 (6.2)
SRH		
Good	11507 (77.72)	11849 (74.05)
Poor	3038 (22.28)	3958 (25.95)
Having chronic condition		
No	7028 (49.69)	6886 (44.69)
1-2	6386 (43.33)	7518 (45.96)
More than 2	1126 (9.68)	1404 (9.35)
Household Level Characteristics		
Residence		
Rural	9731 (72.94)	10304 (69.44)
Urban	4821 (27.06)	5511 (30.56)
Caste		
Others	4262 (27.7)	4680 (27.79)
OBC	5575 (45.48)	5916 (44.89)
SC/ST	4715 (26.83)	5219 (27.32)
Religion		
Hindu	10696 (82.78)	11586 (73.26)
Muslim	1731 (10.92)	1850 (11.7)
Others	2125 (6.3)	2379 (15.04)
Wealth Index		
Poorest	2905 (20.9)	3315 (22.56)
Poorer	2959 (21.7)	3288 (21.82)
Middle	2958 (21.08)	3245 (20.44)
Richer	2891 (19.28)	3083 (19.16)
Richest	2839 (17.04)	2884 (16.03)

Note: SRH: Self-rated health; OBC: Other Backward Class; SC/ST: Scheduled Caste/Scheduled Tribe.

Table 2: **Ordinal Regression Estimates of Life Satisfaction and Employment Status among Indian Elderly** (N=30,367)

Covariates	Men						Women					
	Model-1			Model-2			Model-1			Model-2		
	Coef.	SE	95% CI	Coef.	SE	95% CI	Coef.	SE	95% CI	Coef.	SE	95% CI
Individual Characteristics												
Employment status												
Earlier worked ®												
Never worked	-0.156***	0.045	(-0.245 , -0.068)	-0.082*	0.046	(-0.173 , 0.009)	0.04*	0.021	(-0.001 , 0.082)	-0.047**	0.023	(-0.091 , -0.002)
Currently working	-0.105***	0.020	(-0.143 , -0.066)	-0.023	0.022	(-0.066 , 0.02)	-0.057**	0.025	(-0.108 , -0.006)	-0.028	0.027	(-0.082 , 0.025)
Receiving Pension from previous work												
No®												
Yes				0.223***	0.034	(0.157 , 0.289)				0.334***	0.081	(0.175 , 0.493)
Age												
60-69®												
70-79				0.071***	0.023	(0.026 , 0.115)				-0.008	0.022	(-0.052 , 0.035)
80+				0.094***	0.035	(0.025 , 0.163)				0.072**	0.033	(0.007 , 0.137)
Years of schooling												
No®												
1-5 years				0.118***	0.026	(0.067 , 0.169)				0.159***	0.027	(0.105 , 0.213)
5-10 years				0.209***	0.026	(0.157 , 0.26)				0.23***	0.033	(0.165 , 0.294)
More than 10 years				0.416***	0.038	(0.342 , 0.49)				0.24***	0.057	(0.129 , 0.352)
Marital status												
In marital union®												
Widowed				0.079	0.109	(-0.134 , 0.292)				-0.152	0.116	(-0.379 , 0.076)
Not in marital union				-0.018	0.121	(-0.255 , 0.22)				-0.265**	0.129	(-0.518 , -0.011)
Living arrangement®												
With spouse and child®												
Living alone				-0.439***	0.116	(-0.667 , -0.211)				-0.198	0.121	(-0.435 , 0.04)
With spouse				-0.048**	0.024	(-0.096 , -0.001)				-0.104***	0.029	(-0.162 , -0.047)
With child and others				-0.095	0.108	(-0.306 , 0.115)				0.036	0.117	(-0.193 , 0.265)
Social Participation												
No®												
Yes				0.045	0.035713	(-0.025 , 0.115)				-0.068	0.042678	(-0.152 , 0.016)
Financial Discrimination												
No®												
Yes				-0.478***	0.043483	(-0.564 , -0.393)				-0.59***	0.043527	(-0.675 , -0.504)
SRH												
Good®												
Poor				-0.362***	0.024881	(-0.41 , -0.313)				-0.329***	0.022156	(-0.372 , -0.285)
Having chronic condition												

No®							
1-2		-0.045**	0.021146	(-0.087 , -0.004)		0.041**	0.020221	(0.001 , 0.081)
More than 2		0.052	0.040298	(-0.027 , 0.131)		0.056	0.03651	(-0.016 , 0.127)
Residence							
Rural®							
Urban		0.083***	0.022769	(0.038 , 0.127)		0.147***	0.021827	(0.104 , 0.189)
Caste							
Other than OBC/SC/ST®							
OBC		-0.019	0.024879	(-0.067 , 0.03)		-0.028	0.023701	(-0.074 , 0.018)
SC/ST		-0.131***	0.02744	(-0.184 , -0.077)		-0.109***	0.026009	(-0.16 , -0.058)
Religion							
Hindu®							
Muslim		-0.109***	0.030603	(-0.169 , -0.049)		-0.121***	0.029738	(-0.179 , -0.063)
Others		0.063**	0.030036	(0.004 , 0.122)		0.1***	0.028297	(0.044 , 0.155)
Wealth Index							
Poorest®							
Poorer		0.054*	0.030378	(-0.005 , 0.114)		0.133***	0.028532	(0.077 , 0.189)
Middle		0.087***	0.030795	(0.027 , 0.147)		0.171***	0.028947	(0.114 , 0.228)
Richer		0.12***	0.031534	(0.058 , 0.181)		0.203***	0.029725	(0.145 , 0.261)
Richest		0.126***	0.033305	(0.061 , 0.191)		0.283***	0.031417	(0.221 , 0.345)
Pseudo R2								
	0.011		**0.0345**		**0.005**		**0.0328**	
Likelihood ratio Chi-Square	**33.81*** **		**1057.65*** **		**17*** **		**1107.22*** **	

Note: ®: Reference category; CI: Confidence interval; SRH: Self-rated health; OBC: Other Backward Class; SC/ST: Scheduled Caste/Scheduled Tribe;

Significance level: * P < 0.05, ** P < 0.01, *** P < 0.001

Table 3: **Ordinal Regression Estimates of Life Satisfaction and Occupational Characteristics among elderly**

Covariates	Men						Women					
	Model-1			Model-2			Model-1			Model-2		
	Coef.	SE	95% CI	Coef.	SE	95% CI	Coef.	SE	95% CI	Coef.	SE	95% CI
Individual Characteristics												
Occupation type for currently working												
Farm/fishery/forestry (own/family) work®												
Agricultural laborer	-0.233***	0.052	(-0.335 , -0.132)	-0.14***	0.053	(-0.243 , -0.037)	-0.276***	0.064	(-0.401 , -0.151)	-0.208***	0.065	(-0.336 , -0.08)
Non-agricultural business owner	0.065	0.080	(-0.091 , 0.22)	0.003	0.082	(-0.158 , 0.163)	-0.28*	0.156	(-0.585 , 0.025)	-0.37**	0.161	(-0.685 , -0.055)
Own account worker	0.065	0.048	(-0.029 , 0.159)	0.025	0.051	(-0.076 , 0.125)	-0.153*	0.085	(-0.319 , 0.013)	-0.196**	0.089	(-0.37 , -0.022)
Wage-salaried/Family paid worker	-0.148***	0.039	(-0.224 , -0.073)	-0.134***	0.041	(-0.215 , -0.053)	-0.343***	0.055	(-0.451 , -0.236)	-0.336***	0.060	(-0.453 , -0.22)
Having side job												
No®												
Yes	-0.03	0.051	(-0.13 , 0.07)	0.05	0.052	(-0.053 , 0.153)	-0.187**	0.089	(-0.361 , -0.013)	-0.093	0.091	(-0.271 , 0.085)
Log annual income	0.052***	0.016	(0.021 , 0.083)	0.003	0.017	(-0.03 , 0.036)	-0.018	0.024	(-0.065 , 0.028)	-0.052**	0.025	(-0.101 , -0.004)
Keep working in future												
No®												
Yes	-0.019	0.030	(-0.078 , 0.039)	-0.066**	0.032	(-0.129 , -0.003)	0.018	0.045	(-0.069 , 0.106)	-0.016	0.049	(-0.113 , 0.08)
Variation of hours in work												
Vary according to season®												
Same each week	0.097***	0.036	(0.027 , 0.166)	0.058	0.036	(-0.013 , 0.129)	-0.015	0.055	(-0.122 , 0.092)	-0.044	0.056	(-0.153 , 0.066)
Working months in a year for main job												
For 6 months®												
For more than 6 months	0.079**	0.034	(0.012 , 0.147)	0.017	0.035	(-0.052 , 0.087)	0.064	0.047	(-0.029 , 0.157)	0.029	0.049	(-0.067 , 0.124)
Receiving Pension from previous work												
No®												
Yes	0.455***	0.079	(0.301 , 0.609)	0.265***	0.082	(0.104 , 0.425)	0.884***	0.223	(0.447 , 1.322)	0.731***	0.230	(0.28 , 1.181)
Age												
60-69®												
70-79				0.064*	0.037	(-0.008 , 0.135)				-0.024	0.060	(-0.142 , 0.093)
80+				0.219**	0.085	(0.053 , 0.386)				-0.099	0.137	(-0.368 , 0.17)
Years of schooling												

No®						
1-5 years	0.12***	0.039	(0.043 , 0.196)	0.21***	0.071	(0.071 , 0.349)
5-10 years	0.26***	0.040	(0.181 , 0.339)	0.275***	0.099	(0.082 , 0.468)
More than 10 years	0.416***	0.065	(0.288 , 0.544)	0.61***	0.216	(0.187 , 1.032)
Marital status						
In marital union®						
Widowed	0.008	0.159	(-0.305 , 0.321)	0.193	0.282	(-0.359 , 0.745)
Not in marital union	-0.051	0.181	(-0.405 , 0.303)	0.083	0.303	(-0.511 , 0.676)
Living arrangement						
With spouse and child®						
Living alone	-0.27	0.172	(-0.608 , 0.068)	-0.429	0.289	(-0.996 , 0.137)
With spouse	-0.082**	0.036	(-0.154 , -0.011)	-0.153**	0.064	(-0.278 , -0.028)
With child and others	-0.076	0.156	(-0.382 , 0.23)	-0.292	0.282	(-0.846 , 0.262)
Social Participation						
No®						
Yes	0.024	0.055	(-0.084 , 0.132)	-0.28***	0.079	(-0.436 , -0.124)
Financial Discrimination						
No®						
Yes	-0.392***	0.063	(-0.515 , -0.268)	-0.38***	0.088	(-0.553 , -0.207)
SRH						
Good						
Poor	-0.303***	0.043	(-0.388 , -0.218)	-0.181***	0.060	(-0.299 , -0.063)
Having chronic condition						
No®						
1-2	-0.045	0.033	(-0.11 , 0.019)	0.049	0.047	(-0.043 , 0.142)
More than 2	0.096	0.074	(-0.049 , 0.241)	0.002	0.121	(-0.235 , 0.238)
Residence						
Rural®						
Urban	0.102**	0.042	(0.021 , 0.184)	0.112*	0.064	(-0.013 , 0.237)
Caste®						
Other than OBC/SC/ST						
OBC	-0.03	0.040	(-0.109 , 0.049)	-0.124*	0.068	(-0.258 , 0.01)
SC/ST	-0.092**	0.045	(-0.18 , -0.005)	-0.094	0.070	(-0.232 , 0.044)
Religion						
Hindu®						
Muslim	-0.119**	0.049	(-0.215 , -0.023)	-0.103	0.096	(-0.291 , 0.084)
Others	0.111**	0.049	(0.015 , 0.207)	-0.018	0.068	(-0.151 , 0.116)
Wealth Index						

Poorest®								
Poorer		0.047	0.046	(-0.043 , 0.137)		0.081	0.066	(-0.048 , 0.21)
Middle		0.124***	0.047	(0.032 , 0.215)		0.138**	0.068	(0.005 , 0.272)
Richer		0.118**	0.048	(0.023 , 0.212)		0.136*	0.071	(-0.002 , 0.275)
Richest		0.146***	0.053	(0.042, 0.251)		0.18**	0.078	(0.028 , 0.333)
Pseudo R2								
Likelihood ratio Chi-Square	**0.0091** **114.49*** **			**0.0276** **346.72*** **	**0.0127** **73.87*** **			**0.0297** **173.37*** **

Note: ®: Reference category; CI: Confidence interval; SRH: Self-rated health; OBC: Other Backward Class; SC/ST: Scheduled Caste/Scheduled Tribe;

Significance level: * P < 0.05, ** P < 0.01, *** P < 0.001