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**Current Situation of Older Adults in Rural Bangladesh: *Evidence from the YPSA ageing survey 2023-2024***

**Hafiz T.A. Khan<sup>1</sup>, Arifur Rahman<sup>2</sup>, Morshed Hossan Molla<sup>3</sup>, Fazle Ahabab Mohammad Rabbi<sup>4</sup>**

**Abstract**

This study explores the demographic, social, and health characteristics of older adults in rural Bangladesh, focusing on Sayedpur Union, Sitakund Upazila, Chattogram Division, using data from the 2023-2024 YPSA Ageing Survey. It highlights key disparities in health, economic, and social outcomes among older adults, with notable gender differences. The findings reveal a higher incidence of poor health and lower life satisfaction among women, particularly those with limited education and land ownership. A significant proportion of older adults' report relying on family—mainly sons— for emotional and financial support, particularly for health-related issues. Housing conditions, land ownership, and income levels emerge as critical determinants of health and well-being, with individuals in better housing and those with higher incomes reporting better health outcomes and higher life satisfaction. Furthermore, education level and marital status also influence older adults' health perceptions and overall life satisfaction. The study underscores the importance of addressing socio-economic disparities and improving the structural conditions that impact the elderly in rural Bangladesh.

**Keywords:** Older Adults; Rural Health and Well-being; Life Course Theory; Social Determinants of Health; Bangladesh.

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### ***Author Contribution declaration:***

*Hafiz T.A. Khan was the PI of the YPSA ageing survey project. Mainly designed and developed the questionnaire for the study and prepared the report of the survey and was overseeing the project from the UK. He was involved in revising the manuscript.*

*Arifur Rahman was the Co-PI of the study and is the local supervisor of the project.*

*Morshed Hossan Molla was the coordinator of the data collection and contributed to write up.*

*Fazle Ahab Mohammad Rabbi was responsible for data quality check, data analysis, and revising the manuscript.*

### **Introduction**

Population ageing has emerged as one of the most significant demographic transitions of the twenty-first century. It is reshaping societies across both developed and developing regions. Globally, the proportion of people aged 60 years and above is rising at an unprecedented rate, with the number of older adults expected to double from 1 billion in 2020 to more than 2 billion by 2050 (United Nations, 2024). While much of the academic and policy discourse has focused on ageing in high-income countries, low- and middle-income nations such as Bangladesh are experiencing rapid demographic shifts with limited resources, fragile health systems, and persistent socioeconomic inequalities (Hossain et al., 2006; Khan & Raeside, 2005; Alam & Barkat, 2014; Khan 2019; Jahangir et al., 2025).

The population of Bangladesh in 2025 is around 175 million (United Nations, 2024). The number of people aged 60 years and above has already surpassed 9% of this figure and is projected to reach 22% by 2050 (ESCAP, 2025; HelpAge Asia, 2025). The demographic transition is unfolding against a backdrop of poverty reduction, increased life expectancy, and declining fertility (Bairagi & Datta, 2001; Kabir et al., 2013). Nearly two-thirds of older adults live in rural areas, where access to healthcare, social protection, and employment opportunities remains limited. Rural ageing thus raises critical concerns about equity, sustainability, and the ability of families, communities, and the state to provide adequate support.

Existing research highlights several intersecting challenges faced by older adults in Bangladesh and South Asia. Studies have documented gender disparities in education, employment, and property ownership that accumulate across the life course and disadvantage women in old age (Rahman, 2019; Hossain et al., 2021). Health-related vulnerabilities are equally pressing for older adults in rural settings where high burdens of non-communicable diseases, limited access to medical services, and poor awareness of conditions such as dementia and depression are reported (Uddin et al., 2020; Khanam et al., 2021). Social participation and intergenerational support remain vital sources of wellbeing, yet they are increasingly strained by urbanization, migration, and changing family structures (Khan, 2014; Asadullah & Wahhaj, 2016; Haque, 2022). Moreover, while Bangladesh has expanded its social safety net programmes, evidence suggests that benefits are insufficient, poorly targeted, and often fail to reach the most vulnerable older people (HelpAge International, 2019; Begum & Ullah, 2023).

These gaps underline the urgency of localized research that moves beyond national averages to capture the lived experiences of older adults in rural contexts. Detailed community-level data are particularly scarce, despite their importance for understanding variations in social care, health conditions, and resilience strategies. The present study addresses this need by drawing on the 2023–2024 YPSA Ageing Survey conducted in Sayedpur Union, Sitakund Upazila, Chattogram Division. By documenting the demographic, social, and health characteristics of older adults in this rural area, the study contributes evidence that can inform policies and interventions for sustainable and equitable ageing in Bangladesh.

### *Theoretical Perspectives on Aging in Rural Bangladesh*

Life Course Theory (LCT) and Social Determinants of Health (SDH) frameworks seem to be appropriate to this research, and they are critically evaluated to develop an appropriate framework for the study. LCT framework explains the temporal origins of heterogeneity among older adults (why some individuals enter old age with fewer resources), while SDH highlights the current structural pathways through which social position translates into health and participation outcomes. Methodologically, this suggests two analytic priorities: (a) treat education, lifetime occupation, and land ownership as life-course markers that may mediate or moderate the effects of present-day structural conditions; and (b) explicitly test whether environmental/structural factors (wealth, housing, social safety nets) and sociocultural supports (living arrangements, offspring visits, neighbour interactions) explain cross-sectional variations in ~~you~~ three outcome domains: physical wellbeing, life satisfaction, and social participation. This combined approach has been used widely in ageing research to explain gender and socioeconomic gradients in health and wellbeing (Ben-Shlomo & Kuh, 2002; Ferraro & Shippee, 2009; Marmot, 2005).

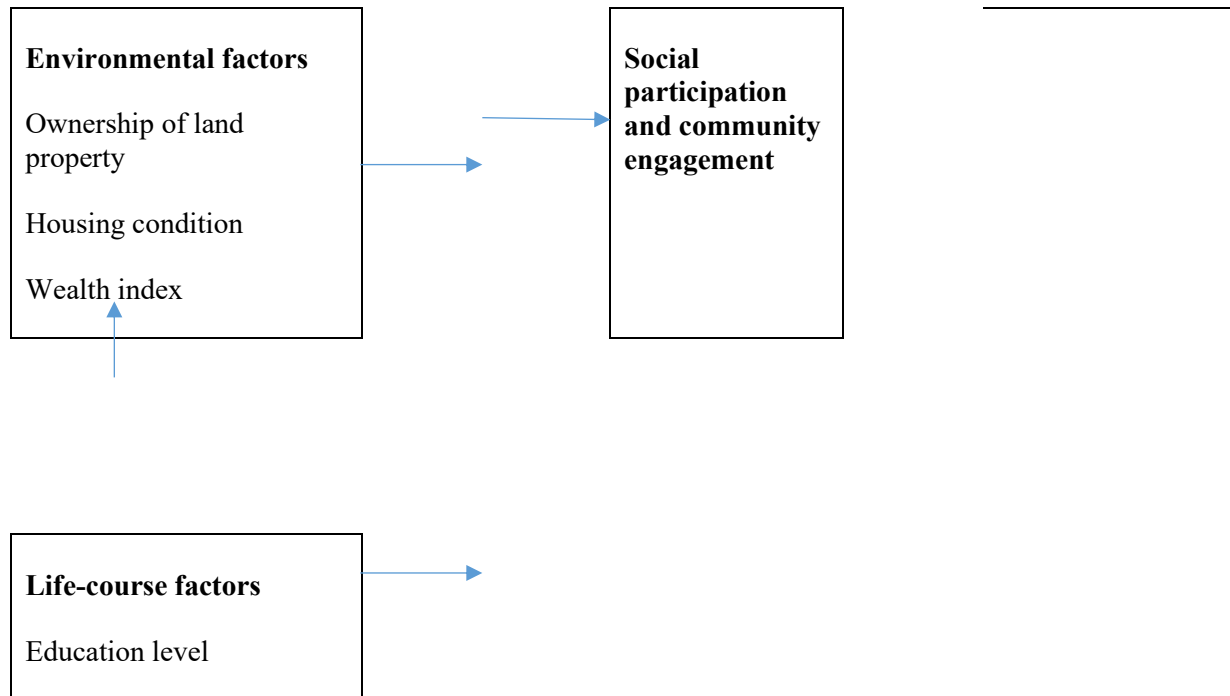
The LCT framework emphasizes that health and wellbeing in later life are not random outcomes but rather the products of accumulated experiences, opportunities, and disadvantages across earlier stages of life (Elder, 1998; Elder et al., 2003). Life trajectories shaped by education, occupation, gender norms, and access to resources create cumulative advantages or disadvantages that manifest in old age. In Bangladesh, women's disproportionately low levels of education, limited land ownership, and weaker economic participation are life-course disadvantages that compound in later years as poverty, dependency, and poorer health outcomes (Rahman, 2019; Hossain et al., 2021). Similarly, rural residents who have experienced lifelong constraints in employment opportunities and healthcare access face higher risks of poor wellbeing and functional decline in old age. Empirical life-course studies show persistent links between childhood socioeconomic status or low educational attainment and higher mid- to late-life morbidity, disability, and mortality (Ben-Shlomo & Kuh, 2002; Ferraro & Shippee, 2009). In South Asia and Bangladesh specifically, life-course processes are important for explaining gendered inequalities in old age. Women's lower educational attainment, restricted labor-market participation, and limited property rights produce cumulative disadvantages that appear in older age as economic dependency, poor access to care, and low autonomy (Rahman, 2019; Hossain et al., 2021; Khan & Raeside, 2005).

The SDH framework further explains how structural conditions, such as income, education, housing, social capital, and access to healthcare, shape individual and population health outcomes (Marmot & Wilkinson, 2006; Solar & Irwin, 2010). In rural Bangladesh, these determinants are visible in the association between the wellbeing of older adults and their wealth status, living arrangements, social participation, and caregiving structures. The reliance on sons for financial

and emotional support, dissatisfaction with social safety nets, and limited healthcare services for conditions such as dementia illustrate how structural determinants profoundly shape ageing experiences. Studies conducted in Bangladesh have documented similar patterns: older adults in rural areas face barriers to service access and social protection, which are linked to poor self-rated health and low take up of appropriate care for conditions such as dementia and chronic NCDs (HelpAge International, 2019; Uddin et al., 2020; Khanam et al., 2021).

To operationalize the theoretical framework for analyzing the current situation on aging in rural Bangladesh, the NIA Health Disparities Research Framework has been adapted, as suggested by Hill et al., (2015). This organizes determinants into environmental/structural, sociocultural, behavioral, and biological domains while preserving a life-course perspective. This adaptation allows for clear mapping from theory to measurement. The explanatory variables were organized following the National Institute on Ageing (NIA) Health Disparities Research Framework (Hill et al., 2015), which classifies determinants into biological, sociocultural, behavioral, and environmental domains, with a cross-cutting life-course perspective.





**Figure 1.** Own construct using NIA-Guided Conceptual Framework of Factors Affecting the Wellbeing of Older Adults in Rural Bangladesh.

## Data and Methods

This cross-sectional descriptive study was conducted in Syedpur Union, Sitakund and Chattogram in Bangladesh, and employed a mixed-methods approach combining quantitative and qualitative techniques. The study population consisted of individuals aged 60 years and above and residing in the union. A snowball sampling technique was used to identify households with elderly members, and a de jure method ensured data were collected directly from eligible participants through repeated household visits when necessary. In addition to being aged over 60 years, the inclusion criteria required respondents to be capable of providing informed consent. Exclusion criteria eliminated those individuals with mental incapacity and households without elderly members.

The study initially targeted 1,000 respondents with data successfully collected from 866 older adults during the period June 2023 to April 2024. Primary data were gathered through a structured questionnaire covering eleven domains (demographic conditions, living arrangements, care and support, physical and mental health, family and social engagement, abuse and exploitation, control over life and resources, social safety nets, gender perspectives, and disaster-related issues). Trained enumerators conducted door-to-door household surveys using both paper-based and digital tools, supplemented by overt and covert observations. A pre-test was conducted to ensure the reliability and validity of the instrument, after which necessary revisions were made. A data quality check

was performed prior to conducting the exploratory data analysis (EDA) on the socio-economic and health conditions of older adults.

### ***Variable Considered in the Study***

#### **Outcome Variables**

The dependent variables in this study reflect three domains of ageing outcomes: physical wellbeing was measured through self-rated health status (bad/worse, fair, good/better); health-seeking behavior (informing family when sick and the type of response received); and financial sources for treatment (self, spouse, son, others). Life satisfaction and mental wellbeing were captured using both a composite measure of overall life satisfaction (satisfied vs. not satisfied) and specific indicators, including happiness, energy, anxiety, feelings of meaninglessness, and rejection. Social participation and community engagement were measured through involvement in activities beyond routine household chores, including other work inside the home, social activities outside the home, and participation in community-level activities.

In this study, the respondents ages were considered (60–65, 66–70, 71–75, 76–80 and over 80) and their sex (male, female) as biological factors. For sociocultural factors we considered religion (Islam, Hinduism); marital status (currently married, others, including divorced/widow/widower); living arrangements (currently living with son or spouse or all household members or daughters or others), and frequency of offspring visits (daily, more than once a week, once a week, once a month, rare or never); neighbor visits (yes or no). Behavioral factors included occupation of respondents (agriculture, others, retired/unemployed); monthly income (no income, up to 500 TK, 501–1500 TK, 1501–5000 TK, more than 5000 TK). Land property was also considered (no land, has some land), plus housing conditions (pucca, that stands for permanent or solid, well-built house, semi-pucca, others), and wealth index (poorest, poorer, middle, richer, richest) of respondents as environmental factors. Lastly, life-course perspective factors included only the education level (illiterate, can sign only, primary incomplete, primary or higher) of the respondents.

#### ***Statistical Analysis***

The univariate descriptive statistical analysis was used to summarize the distribution of the outcome variables and explanatory variables, using percentages, mean. The quantitative data was analyzed using IBM SPSS Statistics 28.

#### ***Ethical Approval***

Ethical approval was obtained from the Bangladesh Medical Research Council (BMRC) in 2020 (Reference number: BMRC/NREC/2019-2022/796), and informed consent was secured from all participants. The research was funded by a local NGO in Bangladesh called Young Power in Social Action (YPSA).

## Results

### Background characteristics of the respondents

Table 1 presents the background characteristics of respondents, categorized by sex, with a total of 866 individuals - 385 males and 501 females. In terms of age, the largest group falls within the 60-65 years range, comprising 48.4% males and 51.6% females. The distribution shows a trend of increasing female representation in older age brackets, particularly among those aged 66-70 and beyond. Regarding religion, the majority of respondents identified as Muslim (815 total), with 43.1% males and 56.9% females, while Hindu respondents accounted for a smaller portion. The data on land ownership indicates that a significant number of females (72.4%) do not own land, compared to 27.6% of males. Housing conditions reveal that 46.5% of males and 53.5% of females live in pucca or semi-pucca homes, while a larger proportion reside in other types of housing. Education levels show a notable gender disparity, particularly among the illiterate population, where 72.3% are female. In terms of marital status, a majority are currently married, but there is a stark contrast in the "Others" category, where 96.6% are female, indicating a higher prevalence of divorce or widowhood among females. Occupation data highlights that a vast majority of males (96.1%) are engaged in agriculture, while females predominantly fall into the retired/unemployed category (92.1%). Monthly income analysis reveals that a significant number of females (69.6%) have no income, while males show higher representation in the income brackets above 500 TK. Lastly, the wealth index indicates a slightly higher percentage of females in the poorer categories compared to males, suggesting economic disparities between genders.

**Table 1. Background characteristics of the respondents.**

<b>Variables</b>	<b>Males (385)</b>	<b>Females (501)</b>	<b>Total (866)</b>
<b>Age (in years)</b>			
60-65	181 (48.4%)	193 (51.6%)	374
66-70	73 (34.1%)	141 (65.9%)	214
71-75	61 (43.0%)	81 (57.0%)	142
76-80	45 (46.9%)	51 (53.1%)	96
More than 80	25 (41.7%)	35 (58.3%)	60
<b>Religion</b>			
Islam	351 (43.1%)	464 (56.9%)	815
Hinduism	34 (47.9%)	37 (52.1%)	71
<b>Land property</b>			
No lands	42 (27.6%)	110 (72.4%)	152
Has some lands	343 (46.7%)	391 (53.3%)	734
<b>Housing conditions</b>			
Pucca/semi pucca	93 (46.5%)	107 (53.5%)	200
Others	292 (42.6%)	394 (57.4%)	686

<b>Education level</b>			
Illiterate	100 (27.7%)	261 (72.3%)	361
Can sign only	165 (45.7%)	196 (54.3%)	361
Primary (incomplete)	53 (63.1%)	31 (36.9%)	84
Primary or higher	67 (83.8%)	13 (16.3%)	80
<b>Marital status</b>			
Currently Married	380 (51.4%)	360 (48.6%)	740
Others (divorced/widow/widower)	5 (3.4%)	141 (96.6%)	146
<b>Occupation</b>			
Agriculture	198 (96.1%)	8 (3.9%)	206
Others	158 (50.5%)	155 (49.5%)	313
Retired/Unemployed	29 (7.9%)	338 (92.1%)	367
<b>Monthly income</b>			
No Income	140 (30.4%)	321 (69.6%)	461
Up to 500 TK	72 (37.1%)	122 (62.9%)	194
501-1500 TK	42 (71.2%)	17 (28.8%)	59
1501-5000 TK	62 (74.7%)	21 (25.3%)	83

More than 5000 TK	69 (77.5%)	20 (22.5%)	89
<b>Wealth index</b>			
Poorest	88 (49.4%)	90 (50.6%)	178
Poorer	82 (45.6%)	98 (54.4%)	180
Middle	70 (39.5%)	107 (60.5%)	177
Richer	72 (41.6%)	101 (58.4%)	173
Richest	73 (41.0%)	105 (59.0%)	178

### Physical and mental wellbeing of the respondents

The wellbeing indicators for older adults in rural Bangladesh, focusing on their health conditions and support systems are summarized in Table 2. Most older adults (75.7%) communicate their health issues to family members. When addressing health problems, a significant portion (84.4%) prefer to try to solve their issues independently. However, some express challenges, with 8.1% stating that their family does not respond when they are sick and 9.0% feeling that their family lacks the ability to help. In terms of financial support for treatment, the primary source is overwhelmingly from sons, accounting for 82.8% of respondents. Self-funding is minimal, with only 7.1%, and spouses contribute 2.3%. Additionally, 9.8% rely on other sources for financial assistance.

**Table 2. Wellbeing indicators of the older adults in rural Bangladesh.**

<b>Indicator</b>	<b>Frequency (%)</b>
<b>Inform family about sickness</b>	
Yes	671 (75.7%)

No	215 (24.3%)
<b>Solve sickness through</b>	
Try to Solve on My Own	612 (84.4%)
They Do Not Respond When I Am Sick	58 (8.1%)
They Have Not the Ability to Help Me	65 (9.0%)
<b>Financial sources for treatment</b>	
Self-funded	63 (7.1%)
Spouse	20 (2.3%)
Son	734 (82.8%)
Others	69 (9.8%)

The determinants of physical wellbeing among older adults in rural Bangladesh are examined in Table 3, which categorizes health status into three levels: bad or worse, fair, and good or better. Most respondents report their health as fair, with 80.2% overall, while 13.4% indicate bad or worse health and 6.3% describe their health as good or better. Gender differences show that slightly more females report fair health compared to males. Age appears to influence health perceptions, with older age groups exhibiting a higher percentage of bad or worse health. For instance, those over 80 years old have the highest percentage (18.3%) in this category. Religion also plays a role; as Hindu respondents show a lower percentage of bad health compared to Muslims. Housing conditions and education level correlate with health status as well. Those living in pucca or semi-pucca houses report better health outcomes than those in other types of housing. Illiterate individuals also tend to report poorer health compared to those with higher education levels. Marital status, occupation, and income are additional factors affecting physical wellbeing. Currently, married individuals and those with higher incomes generally reported better health.

Notably, the wealth index indicates that the poorest individuals have a higher percentage of bad health. The frequency of neighbor visits and family interactions significantly influenced wellbeing. Older adults who received regular visits from neighbors reported better health outcomes, and those living with sons had a lower percentage of bad health compared to those living with daughters or alone.

**Table 3. Determinants of physical wellbeing of the older adults in rural Bangladesh.**

<b>Variables</b>	<b>Bad or Worse</b>	<b>Fair</b>	<b>Good or Better</b>	<b>Total</b>
<b>Age (in years)</b>				
60-65	45 (12.0%)	307 (82.1%)	22 (5.9%)	374
66-70	26 (12.1%)	176 (82.2%)	12 (5.6%)	214
71-75	23 (16.2%)	105 (73.9%)	14 (9.9%)	142
76-80	14 (14.6%)	76 (79.2%)	6 (6.3%)	96
More than 80	11 (18.3%)	47 (78.3%)	2 (3.3%)	60
<b>Religion</b>				
Islam	116 (14.2%)	647 (79.4%)	52 (6.4%)	815
Hinduism	3 (4.2%)	64 (90.1%)	4 (5.6%)	71
<b>Land property</b>				
No Lands	20 (13.2%)	126 (82.9%)	6 (3.9%)	152
Has Some Lands	99 (13.5%)	585 (79.7%)	50 (6.8%)	734
<b>Housing conditions</b>				

Pucca/semi pucca	15 (7.5%)	167 (83.5%)	18 (9.0%)	200
Others	104 (15.2%)	544 (79.3%)	38 (5.5%)	686
<b>Education level</b>				
Illiterate	53 (14.7%)	293 (81.2%)	15 (4.2%)	361
Can Sign Only	46 (12.7%)	290 (80.3%)	25 (6.9%)	361
Primary (Incomplete)	10 (11.9%)	63 (75.0%)	11 (13.1%)	84
Primary or Higher	10 (12.5%)	65 (81.3%)	5 (6.3%)	80
<b>Marital status</b>				
Currently Married	104 (14.1%)	587 (79.3%)	49 (6.6%)	740
Others (Divorced/Widow/Widower)	15 (10.3%)	124 (84.9%)	7 (4.8%)	146
<b>Occupation</b>				
Agriculture	29 (14.1%)	160 (77.7%)	17 (8.3%)	206
Others	43 (13.7%)	254 (81.2%)	16 (5.1%)	313
Retired/Unemployed	47 (12.8%)	297 (80.9%)	23 (6.3%)	367
<b>Monthly income</b>				
No Income	56 (12.1%)	382 (82.9%)	23 (5.0%)	461
Up to 500 TK	28 (14.4%)	157 (80.9%)	9 (4.6%)	194

501-1500 TK	10 (16.9%)	42 (71.2%)	7 (11.9%)	59
1501-5000 TK	13 (15.7%)	62 (74.7%)	8 (9.6%)	83
More than 5000 TK	12 (13.5%)	68 (76.4%)	9 (10.1%)	89
<b>Wealth index</b>				
Poorest	10 (5.6%)	153 (86.0%)	15 (8.4%)	178
Poorer	17 (9.4%)	148 (82.2%)	15 (8.3%)	180
Middle	23 (13.0%)	148 (83.6%)	6 (3.4%)	177
Richer	31 (17.9%)	130 (75.1%)	12 (6.9%)	173
Richest	38 (21.3%)	132 (74.2%)	8 (4.5%)	178
<b>Neighbors come to visit</b>				
Yes	116 (13.3%)	704 (80.5%)	54 (6.2%)	874
No	3 (25.0%)	7 (58.3%)	2 (16.7%)	12
<b>Currently living with</b>				
Son	81 (13.9%)	469 (80.3%)	34 (5.8%)	584
Spouse	8 (11.4%)	52 (74.3%)	10 (14.3%)	70
With All Household Members	16 (9.1%)	148 (84.6%)	11 (6.3%)	175
Daughters or Others	14 (24.6%)	42 (73.7%)	1 (1.8%)	57

<b>Frequency of visits of the offspring</b>				
Always (Daily)	49 (9.5%)	429 (83.0%)	39 (7.5%)	517
More than Once a Week	13 (18.6%)	50 (71.4%)	7 (10.0%)	70
Once a Week	30 (20.3%)	115 (77.7%)	3 (2.0%)	148
Once a Month	18 (45.0%)	21 (52.5%)	1 (2.5%)	40
Rare or Never	9 (8.1%)	96 (86.5%)	6 (5.4%)	111

Figure 2 (below) presents life satisfaction indicators for older adults in rural Bangladesh, with data categorized by gender. Among the 866 individuals surveyed, a majority expressed feeling satisfied in life, with 47.6% of males and 52.4% of females reporting satisfaction. Additionally, 44.9% of males and 55.1% of females indicated feelings of happiness. When it comes to energy levels, 46.1% of males and 53.9% of females reported feeling full of energy. Conversely, a significant portion experienced anxiety, with 43.4% of males and 56.6% of females reporting thoughts that make them anxious. Feelings of meaninglessness were also notable, as 40.6% of males and 59.4% of females expressed that life has no meaning. Lastly, feelings of rejection were reported by 39.5% of males and 60.5% of females. Overall, the data highlight notable gender differences in life satisfaction and emotional wellbeing among older adults in this rural setting.

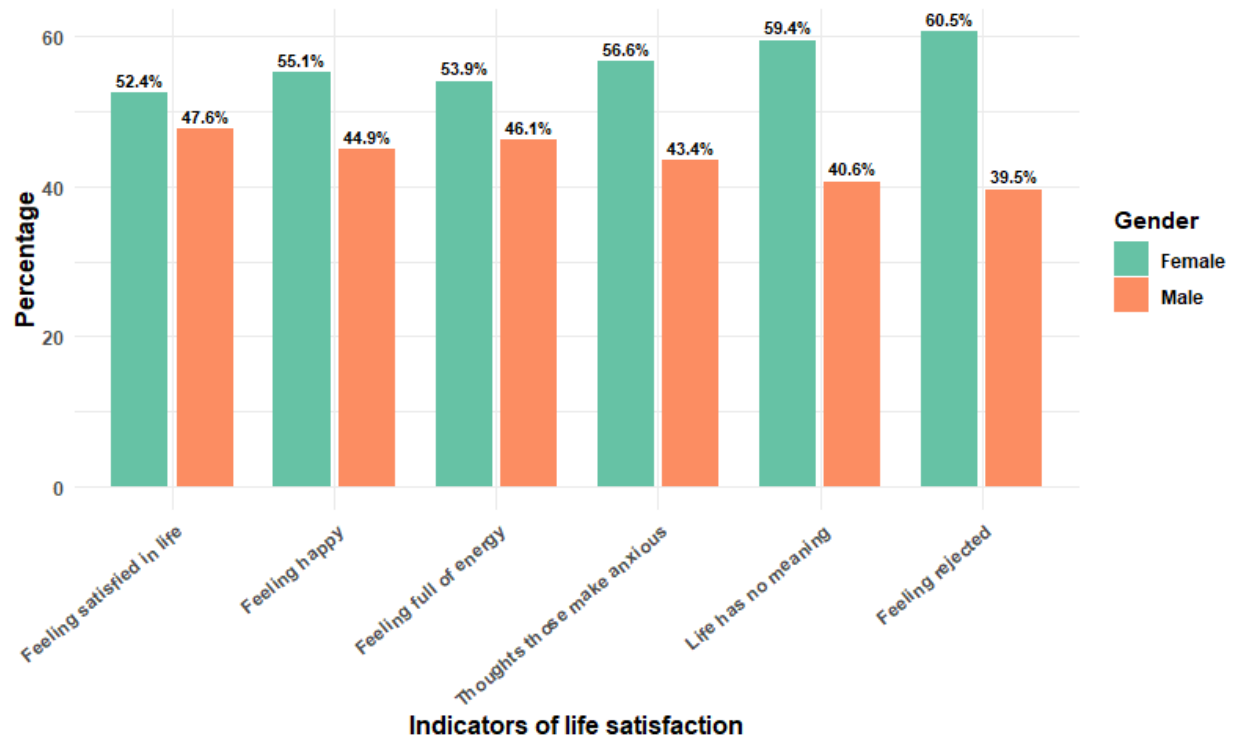


Figure 2. Different indicators of life satisfaction by different background characteristics of the older adults in rural Bangladesh.

Table 4 examines life satisfaction among 866 older adults in rural Bangladesh. Unlike the specific indicators presented in Table 4, this table focuses on the overall life satisfaction of older adults. Sex differences are notable, with 90.1% of males and 88.4% of females indicating satisfaction. Age also influences satisfaction; 88.8% of those aged 60-65 were satisfied, compared to 83.3% of those over 80. Satisfaction rates varied by religion, with 98.6% of Hindus satisfied, while 88.3% of Muslims reported the same. Land ownership correlated with higher satisfaction (91.1% for landowners vs. 79.6% for non-landowners). Housing conditions affect satisfaction, as 90.0% of those in pucca/semi-pucca homes were satisfied. Educational attainment also plays a role, with 91.1% of individuals able to sign reporting satisfaction compared to 86.4% of illiterate individuals. Marital status impacts satisfaction, with 90.1% of married individuals satisfied, compared to 84.2% of those who were divorced or widowed. Income is a significant factor as well; only 81.4% of those earning 501-1500 TK were satisfied, while 92.1% of individuals earning more than 5000 TK expressed satisfaction.

**Table 4. Life satisfaction by different background characteristics of the older adults in rural Bangladesh.**

<b>Variables</b>	<b>Not satisfied at all (96)</b>	<b>Satisfied (790)</b>	<b>Total (866)</b>
<b>Sex</b>			
Male	38 (9.9%)	347 (90.1%)	385
Female	58 (11.6%)	443 (88.4%)	501
<b>Age (in years)</b>			
60-65	42 (11.2%)	332 (88.8%)	374
66-70	20 (9.3%)	194 (90.7%)	214
71-75	13 (9.2%)	129 (90.8%)	142
76-80	11 (11.5%)	85 (88.5%)	96
More than 80	10 (16.7%)	50 (83.3%)	60
<b>Religion</b>			
Islam	95 (11.7%)	720 (88.3%)	815
Hinduism	1 (1.4%)	70 (98.6%)	71
<b>Land property</b>			
No lands	31 (20.4%)	121 (79.6%)	152
Has some lands	65 (8.9%)	669 (91.1%)	734

<b>Housing conditions</b>			
Pucca/semi pucca	20 (10.0%)	180 (90.0%)	200
Others	76 (11.1%)	610 (88.9%)	686
<b>Education level</b>			
Illiterate	49 (13.6%)	312 (86.4%)	361
Can sign only	32 (8.9%)	329 (91.1%)	361
Primary (incomplete)	7 (8.3%)	77 (91.7%)	84
Primary or higher	8 (10.0%)	72 (90.0%)	80
<b>Marital status</b>			
Currently married	73 (9.9%)	667 (90.1%)	740
Others (divorced/widow/widower)	23 (15.8%)	123 (84.2%)	146
<b>Occupation</b>			
Agriculture	25 (12.1%)	181 (87.9%)	206
Others	30 (9.6%)	283 (90.4%)	313
Retired/unemployed	41 (11.2%)	326 (88.8%)	367
<b>Monthly income</b>			
No income	62 (13.4%)	399 (86.6%)	461

Up to 500 TK	11 (5.7%)	183 (94.3%)	194
501-1500 TK	11 (18.6%)	48 (81.4%)	59
1501-5000 TK	5 (6.0%)	78 (94.0%)	83
More than 5000 TK	7 (7.9%)	82 (92.1%)	89
<b>Wealth index</b>			
Poorest	21 (11.8%)	157 (88.2%)	178
Poorer	19 (10.6%)	161 (89.4%)	180
Middle	22 (12.4%)	155 (87.6%)	177
Richer	31 (17.9%)	142 (82.1%)	173
Richest	3 (1.7%)	175 (98.3%)	178

## Determinants of involvedness in other works of the older adults

Table 5 presents a comprehensive analysis of the involvement of older adults in rural Bangladesh in various types of activities beyond their daily household responsibilities. Specifically, it categorizes their participation into three distinct types of work: work inside the home, social work outside the home, and community work outside the home. The table disaggregates participation rates based on several background characteristics, including sex, age, health condition, religion, land property, housing conditions, education level, marital status, occupation, monthly income, and wealth index. This detailed breakdown provides valuable insights into the factors influencing the engagement of older adults in these activities, highlighting the social dynamics and challenges faced by this demographic in rural settings. Understanding these trends is crucial for designing effective policies and interventions aimed at enhancing the wellbeing and active participation of older adults in their communities. In summary, the data reveals nuanced patterns of involvement in various types of works among older adults in rural Bangladesh, influenced by factors such as age, health condition, education, religion, land ownership, and socioeconomic status. Understanding these dynamics is crucial for developing targeted interventions that support the active participation of older adults in their own households and communities.

**Table 5. Involvedness in other works (rather than daily household works) by different background characteristics of the older adults in rural Bangladesh.**

Variables	Different types of involvedness in other social activities		
	Other works inside house (113)	Other social works outside home (168)	other community works outside home (109)
<b>Sex</b>			
Male	50 (13.0%)	85 (22.1%)	56 (14.5%)
Female	63 (12.6%)	83 (16.6%)	53 (10.6%)
<b>Age (in years)</b>			
60-65	48 (12.8%)	77 (20.6%)	46 (12.3%)
66-70	20 (9.3%)	31 (14.5%)	29 (13.6%)

71-75	23 (16.2%)	29 (20.4%)	14 (9.9%)
76-80	17 (17.7%)	21 (21.9%)	14 (14.6%)
More than 80	5 (8.3%)	10 (16.7%)	6 (10.0%)
<b>Health condition</b>			
Bad or worse	5 (4.2%)	12 (10.1%)	9 (7.6%)
Fair	94 (13.2%)	145 (20.4%)	91 (12.8%)
Good or better	14 (25.0%)	11 (19.6%)	9 (16.1%)
<b>Religion</b>			
Islam	99 (12.1%)	145 (17.8%)	89 (10.9%)
Hinduism	14 (19.7%)	23 (32.4%)	20 (28.2%)
<b>Land property</b>			
No lands	15 (9.9%)	19 (12.5%)	7 (4.6%)
Has some lands	98 (13.4%)	149 (20.3%)	102 (13.9%)
<b>Housing conditions</b>			
Pucca/semi pucca	26 (13.0%)	39 (19.5%)	27 (13.5%)
Others	87 (12.7%)	129 (18.8%)	82 (12.0%)
<b>Education level</b>			

Illiterate	36 (10.0%)	65 (18.0%)	41 (11.4%)
Can sign only	56 (15.5%)	66 (18.3%)	38 (10.5%)
Primary (incomplete)	7 (8.3%)	13 (15.5%)	14 (16.7%)
Primary or higher	14 (17.5%)	24 (30.0%)	16 (20.0%)
<b>Marital status</b>			
Currently married	99 (13.4%)	154 (20.8%)	103 (13.9%)
Others (divorced/widow/widower)	14 (9.6%)	14 (9.6%)	6 (4.1%)
<b>Occupation</b>			
Agriculture	25 (12.1%)	39 (18.9%)	28 (13.6%)
Others	42 (13.4%)	65 (20.8%)	39 (12.5%)
Retired/unemployed	46 (12.5%)	64 (17.4%)	42 (11.4%)
<b>Monthly income</b>			
No income	54 (11.7%)	81 (17.6%)	45 (9.8%)
Up to 500 TK	25 (12.9%)	40 (20.6%)	33 (17.0%)
501-1500 TK	5 (8.5%)	10 (16.9%)	6 (10.2%)
1501-5000 TK	13 (15.7%)	17 (20.5%)	11 (13.3%)
More than 5000 TK	16 (18.0%)	20 (22.5%)	14 (15.7%)

<b>Wealth index</b>			
Poorest	42 (23.6%)	57 (32.0%)	34 (19.1%)
Poorer	12 (6.7%)	32 (17.8%)	29 (16.1%)
Middle	10 (5.6%)	31 (17.5%)	28 (15.8%)
Richer	10 (5.8%)	19 (11.0%)	14 (8.1%)
Richest	39 (21.9%)	29 (16.3%)	4 (2.2%)

## **Discussion**

The findings of this study provide a nuanced understanding of ageing in rural Bangladesh, highlighting the critical role of socio-economic and structural determinants in shaping the health, wellbeing, and life satisfaction of older adults. Drawing on the Life Course Theory (LCT) and Social Determinants of Health (SDH) frameworks, the study underscores how accumulated disadvantages over a lifetime influence the current health outcomes of older adults in Sayedpur Union, Sitakund Upazila, Chattogram Division. This is particularly evident in the correlation between low levels of education, limited land ownership, and the higher risks of poor health outcomes and reduced life satisfaction in old age. The findings resonate with earlier work by Rahman (2019) and Hossain et al. (2021), who noted that women and rural residents in Bangladesh are more likely to experience health disparities due to socio-economic disadvantage, which compounds in later life. Similarly, those who have had limited access to healthcare and employment opportunities throughout their lives continue to suffer from functional decline and poor wellbeing in old age, reinforcing the importance of addressing structural inequalities at all stages of the life course.

The results also reveal the significant roles that housing conditions, wealth status, and social support structures play in shaping older adults' experiences of aging. The SDH framework posits that health outcomes are shaped by structural conditions such as income, education, and access to healthcare (Marmot & Wilkinson, 2006; Solar & Irwin, 2010). This study found that older adults in Sayedpur Union with better housing conditions and land ownership were more likely to report positive health outcomes and higher life satisfaction. This aligns with existing studies that highlight the importance of economic resources in securing a better quality of life for older adults (Khan, 2019). Furthermore, the reliance on family for emotional and financial support - particularly sons - was a consistent theme, suggesting that caregiving structures in rural Bangladesh remain deeply gendered and familial. These findings echo earlier research by Hossain (2021), which pointed out that older adults in rural areas often lack access to formal social safety

nets, thus relying heavily on informal family support systems, which are not always reliable or sufficient.

However, the study also found limitations in social engagement and community participation among older adults, despite the potential positive impact of such activities on wellbeing. While involvement in community and social work outside the home was associated with higher life satisfaction and better health outcomes, a significant portion of older adults were not actively engaged in these activities. This finding raises important questions about the barriers to social participation in rural settings, where physical health limitations, lack of transportation, and social isolation are common challenges. Previous studies on rural aging in Bangladesh, such as that by Alam (2020), have pointed to the infrastructural and social barriers that limit the social mobility of older adults. The study's findings suggest that improving social infrastructure, enhancing mobility, and fostering community networks could play a vital role in improving the social engagement and overall wellbeing of older adults in rural Bangladesh.

While the study highlights the crucial role of socio-economic factors in determining older adults' health and life satisfaction, it also underscores the need for more targeted, localized research in rural contexts. The lack of community-level data on older adults' lived experiences is a major gap in the current literature. National averages often fail to capture the unique challenges faced by rural populations. This study, by focusing on Sayedpur Union, offers a valuable contribution to understanding these disparities, providing evidence that can inform future policies and interventions for sustainable aging in Bangladesh. As evidenced by the findings, addressing the specific needs of older adults in rural Bangladesh requires not only improving socio-economic conditions but also ensuring access to appropriate healthcare, social services, and caregiving structures.

In comparison to existing research, the present study also highlights the complex intersectionality of aging in rural settings. Much of the existing literature on aging in Bangladesh (Rahman, 2019) emphasizes the challenges faced by older adults in urban areas. This study shows how rural environments—marked by limited infrastructure, fewer healthcare facilities, and lower economic opportunities—compound the disadvantages experienced by older adults. This discrepancy points to a significant gap in literature, where rural aging remains underexplored despite the growing numbers of elderly people in these areas. Future research should focus more explicitly on these rural contexts to better understand the specific challenges and resilience strategies of older adults outside of urban centers.

### **Strength and limitations**

One of the key strengths of this study lies in its localized, regional approach, focusing on a specific rural area in Bangladesh, which has often been underrepresented in existing ageing research. Additionally, the study's integration of Life Course Theory and the Social Determinants of Health framework allow for a nuanced understanding of how individual experiences of aging are shaped by both personal and structural factors, enhancing the relevance and depth of the findings for policymakers and practitioners.

Despite its strengths, the study has some limitations. The cross-sectional nature of the survey provides a snapshot of the situation, but it limits the ability to draw conclusions about causality or

changes over time. The study is also geographically limited to a single rural community in Chattogram, which may not fully represent the diverse experiences of older adults across different rural regions of Bangladesh. Additionally, although the study captures a wide array of variables, the reliance on self-reported data may introduce biases, particularly in areas such as health conditions and life satisfaction, where respondents might underreport or overreport due to social desirability.

## **Conclusion**

This study contributes to the growing body of research on aging in rural Bangladesh, highlighting the importance of socio-economic factors such as income, education, housing, and social support in shaping the health and life satisfaction of older adults. By applying the Life Course Theory and Social Determinants of Health framework, the study not only identifies the key determinants of aging in rural Bangladesh but also underscores the need for policies and interventions that address these structural inequalities. To promote sustainable and equitable aging, future interventions must focus on improving economic opportunities, healthcare access, and social engagement, with particular attention to the unique challenges faced by older adults in rural areas.

## ***Acknowledgements***

The results of the survey were disseminated at a day-long workshop held on 23 December 2024 at the University of Dhaka, Bangladesh. This event was attended by various stakeholders concerned with ageing issues such as academics, NGO activists, volunteers and students and discussions centered around the key findings. Information about the workshop was published in local daily news outlets and on the YPSA official website: <https://ypsa.org/2024/12/research-results-dissemination-workshop-of-the-ypsa-rural-ageing-project/>

**Funding Declaration:** There was no funding attached to this project. Support for data collection come from the YPSA organisation and by the research team.

**Data Availability declaration in the manuscript:** Data is available on request from the YPSA ([www.ypsa.org](http://www.ypsa.org)).

**Competing Interest declaration:** There are no competing interests.

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