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# Pattern of geriatric health problems and health care seeking behavior among rural people in Bangladesh

## Abstract

**Introduction:** Bangladesh is currently undergoing a demographic transition and the proportion of the population who are elderly is rapidly increasing. As geriatrics health problems are making a greater demand on the health services of the community, universal health coverage can't be achieved if we leave older people behind.

**Objectives:** To assess the socio-demographic status, identification of the health-related determinants and health problems, and treatment-seeking behavior among the elderly rural people.

**Materials and methods:** This cross-sectional descriptive study was conducted from November 2018 to January 2019 at Baliyati, Mohishashi, and Dhalkunda villages in Saturia Upazilla of Manikganj District. People aged ≥ 60 years were selected by purposive sampling and data were collected from 427 elderly people. Data were collected by interview using an interviewer-administered semi- structured questionnaire. Blood pressure was measured by a sphygmomanometer.

**Results:** 49.99 % of the respondents were aged between 60 to 65 years and 18.03% were above 75 years.59.71% of respondents was illiterate, and 18.96% have completed their primary level education. 34.66% of respondents were self-employed and 30.67% were involved in householdwork38.4% had no monthly income. Their monthly family income ranged from 5,000 to 10,000 taka. 57.61% of the respondents lived in a joint family. Most of the respondents (79.85%) are married and of them (49.69%) have 3-4 living children. The majority of the respondents (93.91%) drink from tube well water and 81.49% of respondents use sanitary latrine.42.68% of respondents have an addiction to betel leaf. Among the chronic diseases, 57.38% of respondents suffered from joint pain, 57.14% from visual disturbance, 37.94% from general weakness, 16.16 % from insomnia, and 14.52% from hypertension. The majority of the respondents (78.68%) took measures for their health problems. Due to the high cost of treatment, about 41.75% of respondents did not take any measures when they become sick. Most of the respondents (55.65%) who took treatment preferred to go to a government hospital.

**Conclusion:** Higher medical costs, ignorance about available medical facility in nearby medical units are the main challenges of elderly people in Bangladesh. Most diseases are preventable by creating awareness through mass media.

**Keywords:** geriatrics, health problems, health care seeking behavior

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Farhat Hossain Rummi,[1] Maniza Mahrin Khan,[2] Tajina Tahsin,[3] Intishar Rashad,[4] Navid Abrar,[5] Alvi-Rawan[6]

[1]Combined Military Hospital, Dhaka, Bangladesh
[2]Cadet 1529, 5 th year MBBS, AFMC, Bangladesh
[3]Cadet 1539, 5 th year MBBS, AFMC, Bangladesh
[4]Cadet 1547, 5 th year MBBS, AFMC, Bangladesh
[5]Cadet 1556, 5 th year MBBS, AFMC, Bangladesh
[6]Cadet 1559, 5th year MBBS, AFMC, Bangladesh

**Correspondence:** Colonel Abul Kalam Azad, Cadet 1528, 5th year MBBS, AFMC, Combined Military Hospital, Dhaka, Bangladesh, Email farhat1776@gmail.com

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## Introduction

Ageing is a universal biological process beginning at birth leading to functional deterioration, and vulnerability and ultimately culminating in the extinction of life. We might not heal old age. But we can protect it, promote it and extend it. The United Nations agreed to cut off are 60+years to refer to the older/elderly persons.[1] Bangladesh is currently undergoing a demographic transition and the proportion of the population who are 60 years and older is rapidly increasing. First October 2017 - WHO celebrated the International Day of Older Persons by highlighting that universal health coverage couldn't be achieved if we leave older people behind.[2] Universal health coverage is the foundation for achieving the health objectives of the Sustainable Development Goals. All over the world proportion of elderly people is increasing where the numbers of children are decreasing.[1] Gradually geriatric health problems are making a greater demand on the health services of the community. The average lifespan of people everywhere including Bangladesh has shown an increase in the last few decades due to the worldwide progress of public health and phenomenal development in technology**.** Bangladesh, with one of the highest population densities (985/km sq.) in the world, is projected to experience dramatic growth in the absolute number of its population aged 60 years or older from the current level of approximately 7 million to 14 million by 2024.The statistical data of Bangladesh represent the number of aged population has increased from 1.38 million to 7.59 million from the year of 1974-2012.[3] Bangladesh is the seventh-largest populated (152.51 million) and most densely (1015 people live per square kilometres) country.[4] Furthermore, the nuclear family is increasing in Bangladesh day by day and older people are left alone living separately from their families and becoming vulnerable. This condition demands more health and welfare services and more provision to the elderly support system. Very little is known about the health of the aged and its problems in Bangladesh. This study was undertaken to explore the health problems present among the elderly people residing in some rural areas of Bangladesh.

Problems of the aged are not entirely due to aging. Many of the problems are due to associated treatment which results in loss of

income, loss of a role as a worker, a role shift from independent to dependent, and loss of contact with a social group with which they were day-to-day contact. In addition, there is a problem with spending free time. This leads to a negative self-image that corrodes one's mental health resulting in apprehension, anxiety, depression, and frustrations and life itself starts appearing as a burden. The common problems of the aged people include:

I. Visual and Hearing disturbance
II. HTN
III. Joint pain
IV. Diabetes Mellitus
V. Insomnia
VI. Anorexia
VII. Bronchial Asthma
VIII. Dyspnea
IX. Atherosclerosis.

About 80% of the aged people in our country live in rural areas.[4] Most of them suffer from some basic human problems like poor financial support, denial of diseases and absence of proper health and medicare facility, exclusion and negligence, deprivation, and socioeconomic insecurity.[5] Their sufferings are the cumulative sufferings of a lifetime. The elderly in rural people are not seen to live separately often. Their financial condition is poor and many of them are seen to be incapable of work or capable to do housework only, but not working to earn their daily bread. They are dependent on their children for support as at one time their properties are distributed amongst their offspring. They yet believe in spiritualists to heal them and the fact that He who has given the disease will also heal the disease.

## Methods & materials

This descriptive type of cross-sectional study with a blending of both qualitative and quantitative approaches (a mixed method) was carried out from November 2018 to January 2019,among 427 elderly persons at Baliyati, Mohishashi, Dhalkunda villages of Saturia Upazilla of Manikganj district. A convenience sampling technique was adopted to select the villages. Permanent residents of those villages with age ≥60 years who are physically and mentally stable were included in the study by purposive sampling. Travelers or temporary residents of that area and persons who aren't mentally and physically stable were excluded. An interviewer-administered semi-structured questionnaire containing both close and open-ended questions was used to collect data from elderly people. According to objectives, collected data were processed and analyzed by Microsoft Excel program. Both quantitative and qualitative data were presented by the appropriate table.

## Results

The majority of the respondents (49.88%) belonged to 60-65 years of age group and 18.03% belonged to ≥ 75 year (Table 1). Among the respondent, 63% and 37%were male and female respectively with 82% of Muslim religion and 18% of Hindu religion (Table 2). Educational and occupational status demonstrated 59.71% were illiterate or can sign only, followed by 18.96% having primary level education, 11.48% were were jobless and 34.66% were self employed (Table 3). 57.61% elders lived in a joint family and 34.43% in nuclear family. Respondents included 79.85% married, 19.67% were widow/ widower; majority (41.69%) had 3-4 children and 2.57% had no living children (Table 4).

**Table 1** Distribution of the respondents by age (n=427)

| Age (Years) | (%) |
|---|---|
| 60-65 | 213(49.88) |
| 65-70 | 78(18.26) |
| 70-75 | 59(13.81) |
| >75 | 77(18.03) |
| Mean Age | 427(100) |

**Table 2** Distribution of the respondents by gender and religion (n=427)

| Variable | Percentage (%) |
|---|---|
| Sex | |
| Male | 269 (63) |
| Female | 158 (37) |
| Religion | |
| Muslim | 296 (82) |
| Hinduism | 131 (18) |

**Table 3** Distribution of the respondents by educational and occupational status (n=427)

| Variable | Percentage (%) |
|---|---|
| **Educational status** | |
| Illiterate/ Sign only | 55(59.71) |
| Primary | 81 (18.96) |
| High-school | 51(11.94) |
| SSC/ Equivalent | 25 (5.85) |
| HSC/ Equivalent | 8 (1.87) |
| Graduate and above | 4(0.94) |
| Others/ Informal | 3(0.71) |
| **Occupational status** | |
| Can't work | 49 (11.48) |
| Employed | 52 (12.17) |
| Self-employed | 148 (34.66) |
| Retired | 47 (11.01) |
| Household work | 131 (11.48) |

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**Table 4** Distribution of respondents according to the type of family, marital status, number of living children (n=427)

| Variable | Percentage (%) |
|---|---|
| **Type of family** | |
| Nuclear | 147 (34.43) |
| Joint | 246 (57.61) |
| Extended | 34 (7.96) |
| **Marital status** | |
| Single/ Divorced | 2 (0.46) |
| Widow/ Widower | 84 (19.67) |
| Couple/ Married | 341 (79.85) |
| **Number of living children** | |
| Child less | 11 (2.57) |
| 2-Jan | 136 (31.85) |
| 4-Mar | 178 (41.69) |
| ≥ 4 | 102 (23.88) |

38.4% had no monthly income and 25.99% had <5000 Bangladeshi Taka whereas family income of 5,000-10,000 was 33.49% and <5000 by 11.71% (Table 5). Among the respondents, 93.44% drinks tube well water whereas 6.02% use supplied water; the majority uses (81.49%) sanitary latrine and 18.51% use kacha latrine; betel leaf was the most common habits followed by tobacco users 23.63% (Table 6). Working capability showed 81.73% could work independently and 10.77% were incapable of working physically; 54.33% suffered from acute illness once-two times in a year and 19.67% suffered ≥4 times. 67.21% suffered from cough with cold followed by 53.39% fever (NOS) with multiple responses. 62.76% and 25.99% of the respondents suffered from chronic illness of < 5 years and 5-10 years respectively (Table 7). Blood pressure status was found normal in 55.04% and severe hypertensive was only 1.17% (Table 8). 78.69% of the respondents took treatment for disease and 21.31% didn't take any treatment due to high treatment cost or as medicines were not free (41.75%); 55.65% preferred to take treatment from hospital/clinical and 23.81% from during seller at pharmacy; hospital/Clinic was chosen because of effective and safe treatment whereas 34.82% chose treatment as it was easily available. 66.74% of the respondents didn't require hospitalization in past 5 years and 69.72% chose government hospital (Table 9).

**Table 5** Income of the respondents (n=427)

| Taka | (%) |
|---|---|
| **Self** | |
| <5000 | 111(25.99) |
| 5000-10000 | 80(18.73) |
| 10000-15000 | 45(10.53) |
| >15000 | 27(6.32) |
| No income | 164(38.) |

Table Continued...

| Taka | (%) |
|---|---|
| **Family** | |
| <5000 | 50(11.7) |
| 5000-10000 | 143(33.49) |
| 10000-15000 | 98(22.95) |
| 15000-20000 | 70(16.39) |
| >20000 | 66(15.46) |

**Table 6** Distribution of health-related determinants among respondents (n=427)

| | Percentage (%) |
|---|---|
| **Sources of drinking water** | |
| Tube well/Deep well | 401 (93.91) |
| Supplied water | 26 (6.02) |
| **Type of latrine used** | |
| Sanitary | 384 (81.49) |
| Katcha | 79 (18.51) |
| **Personal habits** | |
| Betel Leaf | 251 (42.68) |
| Tobacco | 139 (23.63) |
| Tea/ Coffee | 120 (20.41) |
| Sadapata | 8 (1.36) |
| Drugs | 2 (0.34) |
| Nothing | 68 (11.56) |
| ***Multiple responses | |

**Table 7** Health status of respondents (n=427)

| | Percentage (%) |
|---|---|
| **Working Capability** | |
| Can work independently | 349 (81.73) |
| Can work with help of others | 32 (7.49) |
| Can't work | 46 (10.77) |
| Times of suffering from acute illness in a year | |
| 1-2 times | 232 (54.33) |
| 3-4 times | 111 (25.99) |
| ≥ 4 | 84 (19.67) |
| **Types of acute illness** | |
| Fever NOS | 228 (53.39) |
| Cough and cold | 287 (67.21) |
| Bronchial asthma | 68 (15.93) |
| Diarrhea/ constipation | 60 (14.05) |
| UTI | 20 (4.68) |
| PUD | 157 (36.77) |
| Headache | 141 (33.02) |
| Others | 10 (2.34) |

Table Continued...

| | Percentage (%) |
|---|---|
| **Types of chronic illness** | |
| Visual disturbance | 244 ( 57.14) |
| Hearing disturbance | 65 (15.22) |
| Joint pain | 245 (57.38) |
| Dyspnea/ palpitation | 63 (14.75) |
| Generalized weakness | 162 (37.94) |
| Tension/ anxiety/ depression | 35 (8.19) |
| Anorexia | 51 (11.94) |
| Dysuria | 15 (3.51) |
| Insomnia | 69 (16.16) |
| Hot flushes | 8 (1.87) |
| Hypertension | 62 (14.52) |
| Diabetes mellitus | 21 (4.92) |
| Bronchial asthma | 37 (8.67) |
| Skin disease | 32 (7.49) |
| Constipation/ Diarrhea | 35 (8.19) |
| Others | 32 (7.49) |
| *** Multiple responses | |
| Duration of suffering of chronic diseases | |
| <5 years | 268 (62.76) |
| 5-10 years | 111 (25.99) |
| ≥10 years | 48 ( 11.25) |

**Table 8** Status of blood pressure in respondents (n=427)

| Blood pressure(mm Hg) | Percentage (%) |
|---|---|
| Normal (<130/<80) | 235(55.04) |
| Mild HTN (140-159/90-99) | 144(33.73) |
| Moderate HTN (160-179/100-109) | 43(10.07) |
| Severe HTN (>180/>110) | 5(1.07) |

**Table 9** Information related to health-seeking behavior (n=427)

| Variables | Percentage (%) |
|---|---|
| Measures were taken for the treatment of diseases | |
| Yes | 336 (78.69) |
| No | 91 ( 21.31) |
| Causes of not taking any measures (n=91) | |
| Don't know where to go | 4 (4.39) |
| No health-care at the locality | 1 (1.09) |
| Poor communication | 1 (1.09) |
| Health care not familiar | 5 (5.49) |
| Non-cooperation of health care provider | 1 (1.09) |
| Treatment cost high or medicine not free | 38 (41.75) |

Table Continued...

| Variables | Percentage (%) |
|---|---|
| Other family members did not allow | 2 (2.19) |
| May be cured without medicine | 33 (36.26) |
| others | 6 (6.59) |
| Treatment preference (n=336) | |
| Spiritualist | 11 (3.27) |
| Private/ NGO | 37 (11.01) |
| Traditional/ ayurvedic medicine | 1 (0.29) |
| Pollichikitsok | 16 (4.76) |
| Pharmacy man(drug seller) | 80 (23.81) |
| Homeopath | 4 (1.19) |
| Hospital/ clinic | 187 (55.65) |
| Reasons for preferring treatment (n=336) | |
| Easily available | 117 (34.82) |
| Effective and safe treatment | 132 (39.29) |
| Low cost | 34 (10.11) |
| Familiar | 15 (4.46) |
| Suggested by others(friend and family) | 38 (11.31) |
| Hospitalization in the last 5 years (n=427) | |
| Yes | 142 (33.25) |
| No | 285 (66.74) |
| Type of hospital preferred for admission (n=142) | |
| Government hospital | 99 (69.72) |
| Private hospital | 39 (27.46) |
| NGOs | 04 (2.81) |

## Discussion

This study was conducted to assess the geriatric health problems and health care seeking behavior among rural people in Bangladesh. A total of 427 elderly people above the age of 60 years, willing to respond and were permanent residents of Saturia and Dhamrai Upazilla, were selected as our respondents. Among 427 respondents most of them were within the age of 60-65 years (49.9%) and lowest were in the age group more than 75 years (18.03%).Majority of our respondents are Muslim (63%) and the rest are Hindus. Our survey showed 63% male and 37% female. According to a UN survey 2011, in our country, 47% people belong to the age group of 60-64yrs and 28% belong to age group of 65-69 yrs and rest in> 70 years age group. Besides, studies of UN department of economic and social affairs population division shows that 86% of the country's populations are Muslims.[6] Our study age group is similar to the UN study; dissimilarity in religion may be due to our small scale study. According to Bangladesh Bureau of statistics, among the age group of 60-64yrs married are 75.2% & Widowed 22.9%, in age group of 70-74yrs married are 60.9% & widowed 37.2% which almost similar to our study which showed 79.85% of them were married, 18.73% had lost their better half. Among the married respondents 41.69% were blessed with 3-4 living children. In a study by Dhaka medical college in 2003, it shows 71% people live in joint family and about 19.6% live in a family which has more than 9 members.[7] Our study differed from them by having

decreased number of people living in joint (57%) and extended family with their children and grandchildren, this difference may be due to poverty, lowered family values and improved living facility.

According to a study conducted by Suraiya Zabeen published in the journal of rural health & health seeking behavior of rural people, 58.2% of the respondents can work and 41.8% of them can't work.[8] Our percentage of working respondents were more than her as her study was conducted on population above 65 years and improved facility for work. According to a journal on bioethics by Shamima Parveen, it shows that 48% people over age of 60 live below the poverty line and 85% are unemployed. The study also shows that 69.2% people are illiterate and 14.7% has passed the primary level.[9] This difference of employed population is may be due to collection of data on their workplaces on the 1st day as well as increased working facilities as stated earlier. On a similar cross sectional study carried out during March June, 2001, at Prabin Hitayishi Hospital, Bangladesh Association of Aged and Institute of Geriatric Medicine (BAAIGM), Agargaon, Sher- e -Bangla Nagar, Dhaka. Out of 107 respondents, 23.4% were employed, 46.7% had self-income.[10] According to the Department of Public Health Engineering of Bangladesh government, Bangladesh has achieved a remarkable success providing 97% of rural population with bacteriologically safe tube-well water.[11] This is proved by our study which reveals that 93.4% of our respondents had access to tube well water.

It was observed that 81.49% of our respondents had access to sanitary latrine which almost corresponds to a similar study done by BRAC where 72% of their respondents had access to sanitary latrine and 18.51% of our respondents still use kacha latrine.[12] According to a survey by Dhaka medical college, about 35% people who are 61+ age smokes tobacco among which 97.6% were male.[8] Our study showed more percentage of tobacco smoking due to easy availability. According to a study in Southeast Asia done by Pt J.N.M medical college, Raipur, India regarding prevalence and determinants of hypertension in elderly people about half of the study population were hypertensive[13] and according to US National Library of Medicine National Institutes of Health about hypertension review in Bangladesh 40-65% of elderly people suffer from high blood pressure.[14] But surprisingly our study revealed 55.04% normotensive which may be due to improved treatment facility regularity in taking antihypertensive medication due to improved health consciousness. Most of our respondents of 54.33% had been attacked with episodes of acute illness 1-2 times in a year which include fever (53.39%), cough (67.21%), bronchial asthma (15.93%), diarrhea (14.05%), UTI (4.68%), PUD (36.77%), headache (33.02%) and other diseases like gum pain, gum bleeding etc.

Among our respondents 62.76% had been suffering from chronic illness for the past 1-4yrs, 25.99% for the past 5-10 years and 11.25% for more than 10 years. Visual disturbance 57.14% ,hearing disturbance 15.22%,joint pain 57.38%, hypertension 14.52%, general weakness 37.94% were very much prevalent amongst our study population with some other diseases(7.49%) like Rheumatoid arthritis, osteoporosis, back pain, frozen shoulder, cataract, palpitation, chest pain. According to a study by icddrb, the common health problems of geriatric population in Bangladesh are Diarrheal disease (16.1%), skin disease (15.7%), anemia (9%), intestinal parasites (8.7%), gynecology and obstetrics problems (7.5%), isolated fever (6.7%), eye problems (5.4%), weakness/malnutrition (5.3%), ENT problems (1.8%) and some other problems as well. Most people have been suffering from chronic illnesses for 2-4 years.[15] In our study visual disturbances were more prevalent because it encompasses a broad spectrum including myopia, hypermetropia, presbyopia, diplopia and other problems whereas other studies includes only infection and operations. Besides icddrb considered malnutrition as the factor for generalized weakness whereas we included aging, anorexia etc. According to a journal by Dr Suraiya Zabeen, among 411 elderly persons on their health seeking behavior, 45.7% sought treatment from private hospital, 32.3% from non registered practitioners, 18.9% from government hospital and remaining 3.1% used home remedies or sought help from traditional healers. Their main reasons for such choices were the availability, cost and affordability of treatment.[16] In our study private hospitals were not preferred as there were facilities of government hospitals and improved health service facility.

## Conclusion

The root causes of vulnerably of elderly are medical, economical, emotional and Social issues which are concerns not only for the individual or family, but also a concern for the community. Increase in medical costs, ignorance about available medical facility in nearby medical units is main challenges of elderly facing in Bangladesh. Elderly have knowledge, experience, and wisdom. Society can use these resources of elderly in the national reconstruction. It is our ethical and moral responsibility to extend our helping hands towards our senior citizen so that they can pass their ending days of life with respect, proper care, food security. Poor health care service, mistreatment from the family members and threat from meeting basic needs, unhygienic living condition and poor sanitary system, isolation and loneliness, unsuitable transport system and poor recreational facilities are very much associated with the life of the elderly in Bangladesh. In this context, the need for a social welfare program for the elderly both from the government as well as public sector is emerging and requires serious attention in future years. Bangladesh government, through 'Bangladesh Association for Aged and Institute for Geriatric Medicine has taken a policy in 2007 named the 'National Policy in Aging' which has improved the conditions of geriatric health but we still have a long way to go. We recommend that health care for aged people should be made free for the people who cannot afford it, or at least given at a subsidized rate. Government may increase outdoor service units in government hospitals and special free transport services for the elderly. It was a purposive study and we have chosen our sample based on non-probability purposive sampling technique and the chosen sample may not represent the actual population of the Saturia Upazilla. In this context we recommend nationwide large scale study on geriatric health problems so that national policy can be made to mitigate suffering of elderly.

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## Conflicts of interest

The author declares there is no conflict of interest.

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