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Geriatric Health Problems of the Elderly Garo People in Madhupur Upazila of Tangail District

Md. Atiqul Hoque Chowdhury
Md. Rabiul Haque

Abstract: *The growing number of older people is an emerging challenge for Bangladesh because of experiencing age structural transition. Older people, especially elderly ethnic people are vulnerable to various health problems as various geriatric problems come naturally with old age. However, little attention has been paid on this issue in Bangladesh. The objective of this article is to assess the self-reported health status of the elderly Garo people in Madhupur Upazila of Tangail. A cross sectional descriptive study was conducted, targeting Garo population aged 60 years or above to attain the objective of the paper. A total 400 respondents were interviewed for this study. The result shows that among the elderly Garo, 50% stated their health status as poor, 38% as fair and 12% as good. Most common reported illnesses were low vision (67%), walking problem (55%), rheumatism (54%), Gastric (52%), cold or cough (47%), headache (39%), skin disease (25%), high blood pressure (23%) and asthma (14%). Rheumatism, headache and gastric were found to be more common in elderly females than that of males with significant differences. Age group, employment status, smoking tobacco and drinking (alcohol) behavior, emerged as the most significant determinants of self reported health status. Elderly having age 80 years or above were 2.600 times more likely to report their health status as poor than the elderly aged 60-69 years (OR 2.600, 95% CI: 1.352-4.997). Employed elderly were 0.279 times less likely to report their health status as poor than those who were unemployed (OR 0.279, 95% CI: 0.166-0.470). Elderly Garo who hadn't the habit of smoking were 0.589 times less likely (OR 0.589, 95% CI: 0.376-0.922) and who hadn't the habit of drinking alcohol were 1.971times more likely (OR 1.971, 95% CI: 1.233-3.149) to perceive their health to be poor than the elderly who had these habits. This study also found that high blood pressure and asthma were statistically associated with drinking (alcohol) behavior and smoking habit respectively. The study findings suggest that sspecific health related program should focus in that locality to cure and prevent the most prevalent diseases.*

Introduction

Worldwide older people are the fastest growing segment of population and most rapid of this increase is taking place in developing countries. Bangladesh is also experiencing an

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Md. Atiqul Hoque Chowdhury, Lecturer, Department of Business Studies, University of South Asia, Bangladesh

Md. Rabiul Haque, Associate Professor, Department of Population Sciences, University of Dhaka

age structural transition. There is no common definition of aging to clarify at what age people become old but in developing countries like Bangladesh, people having 60 years or above are considered as the elderly segment of the population (Kabir, 1994). Considering this definition, the growing number of older people is an emerging challenge for Bangladesh as about 6.2 percent of the total population is aged (≥ 60 years) which is equivalent to approximately 8.5 million people of the total population (BBS, 2001). However, the number of 60 years and plus people projected to increase from about 9.8 million (6.5 percent of the total population) in 2011 to 44.1 million (20.2 percent) by 2051 (BBS, 2011). Although the current figure is 6.5 percent of the total population, it has many implications on the average size of the households and on the community and social protection network due to large population size, scarcity of resources, inadequate health facilities and lack of social safety net. Aging is going to be a major threat for Bangladesh as older persons are often negatively perceived and these perceptions often leave older persons marginalized, neglected and abused, particularly the poor ones. Increasing landlessness, rural to urban migration, transformation of extended families to nuclear families and changing lifestyles have put the segment of older population in Bangladesh more vulnerable (Rahman, 2002; CPD, 2000).

Older people are also vulnerable to various health problems. Various geriatric problems come naturally with old age. In old age people become more vulnerable to chronic diseases, physical disabilities and mental incapacities. The health problems of the elderly are multiple, complex and chronic in nature. Elderly are prone to several kind of disease at the same time leading to a rapid loss of health. Illness often occurs in the areas of vision, hearing, breathing etc. Now a day, problems with blood pressure, cardiovascular disease, psychological disorders such as memory loss, mental disorders, depressing are increasing. According to Bangladesh Demographic Health Survey (BDHS, 2000), peptic ulcer, arthritis, fever with cold and cough, asthma, pain, hypertension and diabetes etc are the common health problems among the elderly in Bangladesh.

Ethnic elderly are most vulnerable in this regard. In several studies, it is found that ethnic people experience more health problems as compared to their mainstream population (Ahmed et al., 2003; Altman, 2003). There are many ethnic groups in Bangladesh. Garo is one of them. Garos are one of the matrilineal societies in the world. Most of the Garo people live in different areas of Mymensingh district and Modhupur Upazila of Tangail district (Playfair, 1975; Singha, 2002). Among the Garos, daughters inherit property from their mother. Women are the household head of the family and hold all control over the economy, but husbands also have the option to use resources in cooperation with their wife. Women enjoy high status in Garo community. Agriculture is the main source of income. Smoking tobacco and drinking alcohol behavior is a common habi in Garo society (Harbison et al., 1989). Since asthma is associated with smoking behavior of the elderly (Isoaho et al., 1994; Ahmed et al., 2005), and alcohol intake has a marked effect on blood pressure (Efstathios et al., 2012; Chen et al., 2008), the elderly Garo are vulnerable in regards to these two diseases.

The ethnic population groups become disadvantaged in terms of health and livelihood being cast away from mainstream development activities (Rafi & Chowdhury, 2001).

Older people of Garo communities are most disadvantageous and vulnerable as they are old, rural inhabitants, poor, less literate and minority. In Bangladesh very little study was conducted combining the issue ethnicity and old age in health research. This is also true for the older Garo people. The census data of Bangladesh is not sufficient to study the health problem of the elderly Garo people because only limited information about Garo people is available in the census schedule. This study is important to explore the health problems of the elderly Garo and generate information. The present study aims to assess the self-reported health status of the elderly Garo people in Madhupur Upazila of Tangail. The study also explores the factors that are important for their poor health status.

Data and Methodology

This cross sectional study was conducted in February 2012 in Madhupur Upazila of Tangail targeting people aged 60 years or above of both sexes. A structured questionnaire including some open ended questions was used for data collection. Twenty two villages from Madhupur Upazila were selected randomly and all the elderly (aged ≥60) Garo people were interviewed for the study. Finally a total of 400 elderly Garo people were interviewed after obtaining verbal consent. Sometimes necessary verbal consent from family members was also obtained. Information on illness experiencing preceding 15 days or at the time of interview was collected.

After data collection, editing, coding and entry were done manually. Then the data were analyzed with the help of SPSS software. In SPSS, analysis was done in three stages. First, Descriptive statistics such as frequency, percentage, mean, standard deviation etc were calculated to explore the socio-demographic characteristics of the sample. Second, in bivariate analysis, independent sample t-test, Chi-square test and odds ratio were performed to examine the association or differences between categorical variables. Third, we run a logistic regression model to explore the determinants of self-assessed health status which was turned into a dummy variable indicating 1 for poor health status and 0 for others.

Results

The sample comprises 400 respondents where 50% was male and 50% was female. In our collected sample, 67% of the respondents were married living with spouse. Out of 400 respondents, 44% elderly Garo were in the age group 60-69, 31% in age group 70-79 and rest in group ≥80. The age of the elderly Garo ranges from 60 years to 110 years. Their mean age was 72.1 years with standard deviation of 10.8 and their median age was 70 years. Among the respondents, 48% of the elderly Garo had no education, 37% had only primary education ranging from one to five years and 16% had secondary or higher education. Thirty one percent of the older people were unemployed. Agriculture was the main occupation of the elderly Garo. Except unemployed people most of the respondents were somehow related with their traditional agricultural job. Smoking and drinking (alcohol) behavior were very high among the elderly Garo. Fifty six percent of the respondents had smoking behavior and 63% had drinking (alcohol) habit (table 1).

Table 1: Characteristics of the elderly by self-reported health status

Characteristics	n (%)	Self-reported health status (%)		χ^2-test
		Poor	Good /Fair	
Sex				
Male	200 (50)	49.2	50.8	0.123
Female	200 (50)	51	49	
Age group				
60-69	175 (43.8)	37.7	62.3	
70-79	125 (31.3)	52.8	47.2	24.78**
≥80	100 (25)	68.3	31.3	
Marital status				
Spouse alive	269 (67.2)	47	53	3.159
Spouse not alive	131 (32.8)	56.5	43.5	
Education				
No education	191 (47.8)	53.9	46.1	
Primary	146 (36.5)	48.3	51.7	2.634
Secondary or higher	63 (15.8)	42.9	57.1	
Employment status				
Unemployed	122 (30.5)	75.4	24.6	44.93**
Employed	278 (69.5)	39	61	
Smoking behavior				
Yes	223 (56)	55	45	4.698*
No	175 (44)	44	56	
Drinking alcohol				
Yes	251 (63.1)	43.2	56.8	12.95**
No	147 (36.9)	61.9	38.9	
Total	**400 (100)**	**50.1**	**49.9**	

*Significance levels *p<0.05; **p<0.01*

To assess the health status of respondents a question 'what is your current health status?' was asked. The answer was recorded on a three-point scale: good, fair and poor. It was found that 12% elderly Garo perceived their current health status as good, 38% fair and 50% poor (table not shown). The study found that self-reported health status is significantly associated with age, employment status, smoking behavior and drinking (alcohol) behavior. A significantly higher proportion of the respondents (68%) compared only with less than half of the respondents (38%) aged 60-69 reported that their health was poor. A higher proportion of the unemployed respondents (75%) than employed (39%) perceived their health to be poor. A higher proportion of the respondents (55%) who had smoking behavior perceived their health to be poor compared to the non-smoker respondents (44%). Alcohol intake has a positive effect on self-reported health status. A significantly higher proportion of the respondents (57%) who had drinking (alcohol) behavior perceived their health to be good or fair compared to the respondents (39%) who didn't take alcohol (table 1)

Table 2: Common health problems of the elderly by gender

Problem	Total n (%)	Female n (mean)	Male n (mean)	Mean differences
Low vision	268 (67)	136 (.68)	132 (.66)	0.020
Walking problem	221 (55.3)	118 (.59)	103 (.515)	0.075
Hearing problem	127 (31.8)	72 (.36)	55 (.275)	0.085
Breathing problem	104 (26)	50 (.25)	54 (.27)	-0.020
Sleeping disorder	83 (20.8)	47 (.235)	36 (.18)	0.055
Rheumatism	214 (53.5)	126 (.63)	88 (.44)	0.190**
Gastric	208 (52)	115 (.575)	93 (.465)	0.110*
Cold or cough	189 (47.3)	94 (.47)	95 (.475)	-0.005
Headache	154 (38.5)	90 (.45)	64 (.32)	0.130**
Skin disease	99 (24.8)	50 (.25)	49 (.245)	0.005
Fever	81 (20.3)	41 (.205)	40 (.20)	0.005
Diarrhea	42 (10.5)	21 (.105)	21 (.105)	0.000
Injury	22 (5.5)	11 (.55)	11 (.55)	0.000
High blood pressure	91 (22.8)	42 (.21)	49 (.245)	-0.035
Asthma	57 (14.3)	22 (.11)	35 (.175)	-0.065
Diabetics	13 (3.3)	6 (.03)	7 (.035)	-0.005
Heart disease	8 (2)	5 (.025)	3 (.015)	0.010
Piles	7 (1.8)	3 (.015)	4 (.02)	-0.005
Urinary ailments	5 (1.3)	1 (.005)	4 (.02)	-0.015
Tuberculosis	5 (1.3)	2 (.01)	3 (.015)	-0.005

Significance levels $*p<0.05$; $**p<0.01$*

Low vision, slow moving, hearing problem, difficulty in breathing, sleeping disorder etc are common geriatric health problems which arise naturally in old age. Table 2 shows that, 67% elderly had low vision problem, 55% had walking problem, 32% had hearing problem, 26% had breathing problem and 21% had sleeping disorder. In this study, rheumatism, gastric, cold or cough, headache, skin disease, fever, blood pressure disorder and asthma were found as the most prevalent illness among the elderly Garo people. Fifty four percent of the elderly Garo had rheumatism, 52% had gastric problem, 47% had cold or cough, 39% had headache, 25% had skin disease, 23% had blood pressure disorder, 20% had fever, 14% had asthma, 11% had diarrhea and 6% had injury prior 15 days or at the time of the interview. And diabetics, heart disease, piles, urinary ailments, tuberculosis were found as the less prevalent illness. Differential in some diseases by gender was found in this study. Rheumatism, headache and gastric were found more common in elderly females than that of males. Mean difference by gender were found statistically significant for rheumatism (df=398, t= 3.871, P =.000), headache (df=398, t=2.689, P=.007) and gastric (df=398, t= 2.210, P =.028). Though hearing problem was more common in elderly females (df=398, t= 1.829, P=.068) and asthma was more common in elderly males (df=398, t= 1.863, P =.063), these results were not significant at

5% level of significance. Some diseases such as cold or cough, skin disease, fever, diarrhea and injury were found equally common in both sexes (table 2).

Table 3: Distribution of asthma by smoking behavior

Smoking habit	Asthma		χ^2-test	P-value	Odds ratio
	Yes	No			
Yes	41	182	6.827	0.009	2.239
No	16	159			

From table 3, it is found that there is a significant association between smoking behavior and asthma. Here, our calculated odds ratio is 2.239. That is those who had smoking habit were 2.239 times more likely to have asthma than the non-smokers.

Table 4: Distribution of high blood pressure by drinking (alcohol) behavior

Drinking habit (alcohol)	High blood pressure		χ^2-test	P-value	Odds ratio
	Yes	No			
Yes	65	186	4.186	0.041	1.705
No	25	122			

From table 4, it is seen that there is a significant association between drinking behavior and high blood pressure. Here, our calculated odds ratio is 1.705. That is those who had drinking habit were 1.705 times more likely to have high blood pressure than those who didn't take alcohol.

Table 5: Odds ratio (OR) of reported poor health status in elderly Garo people

Characteristics	**Odds Ratio**	**95% Confidence Interval**		**P-value**
		Lower	**Upper**	
Sex				
Female	1			
Male	0.853	0.514	1.417	.539
Age group				
60-69	1			
70-79	1.382	.814	2.349	.231
≥80	2.600	1.352	4.997	.004
Education				
No education	1			
Primary	1.129	.685	1.860	.635
Secondary or higher	0.924	.477	1.788	.813
Marital status				
Spouse not alive	1			
Spouse alive	1.259	.721	2.198	.417

Employment status				
Unemployed	1			
Employed	0.279	.166	.470	.000
Smoking behavior				
Yes	1			
No	0.589	.376	.922	.021
Drinking (alcohol)				
Yes	1			
No	1.971	1.233	3.149	.005

Table 5 represents a model for predicting the odds of an individual's reporting health status as poor by sex, age group, education, marital status, employment status, Smoking behavior and drinking (alcohol) behavior. Age group, employment status, smoking tobacco and drinking (alcohol) behavior, emerged as the most significant determinants of self reported health status. Male elderly Garo were 0.853 times less likely to report their health status as poor than female but the result is not statistically significant. Elderly having age 80 years or above were 2.600 times more likely to report their health status as poor than the elderly aged 60-69 years (OR 2.600, 95% CI: 1.352-4.997). Employed elderly were 0.279 times less likely to report their health status as poor than those who were unemployed (OR 0.279, 95% CI: 0.166-0.470). Elderly who didn't smoke were 0.589 times less likely to perceive their health to be poor than the smoker elderly (OR 0.589, 95% CI: 0.376-0.922). This study found that drinking alcohol has a positive effect on self-reported health status. Elderly Garo who hadn't the habit of drinking alcohol, were 1.971 times more likely to report their health as poor than who had the habit (OR 1.971, 95% CI: 1.233-3.149).

Discussion and conclusion

Equal numbers of Garo male and female were interviewed for this study. Among the respondents, most of them were below eighty years old, married with living spouse, had no education or less education, employed somehow with agricultural activities and had drinking (alcohol) and smoking behavior. This cross sectional analysis showed the health problems of the elderly Garo experienced prior fifteen days or at the time of the interview. Before discussing the results, several limitations are mentioned here. First, information on disease was collected as perceived by the elderly Garo and no diagnostic tests were done to confirm the same. Second, since our data presents a cross sectional picture of the morbidity, it may be unable to capture the seasonal variations.

Most of the elderly Garo perceived their overall health as poor. A qualitative study by Biswas et al. (2006) also shows the similar findings. The high prevalence of morbidity among the elderly Garo people found in the study is consistent with other studies in Bangladesh (Kabir et al., 2003; Rahman, 2002). The most prevalent illnesses are low vision, walking problem, rheumatism, gastric problem, cold or cough, headache, skin disease, high blood pressure, fever and asthma. Differential in some diseases by gender was found in this study. Rheumatism, headache and gastric were found to be more common in elderly females than that of males. But some diseases such as cold or cough,

skin disease, fever, diarrhea and injury were found equally common in both sexes. Asthma was found more common in elderly males and hearing problem was found more common in elderly females with no statistical significance. It is also found that blood pressure disorder is statistically associated with drinking (alcohol) habit and asthma is associated with smoking behavior. And these findings are consistent with other studies (Isoaho et al., 1994; Ahmed et al., 2005; Efstathios et al., 2012; Chen et al., 2008). The elderly Garo who smokes are more likely to have asthma than those who do not, and those who have drinking habit are more likely to have high blood pressure than those who do not take alcohol. The study also revealed that the prevalence of diabetes and ischemic heart disease among the elderly Garo is low. This may be due to ignorance of the people about these diseases. Since there is no proper diagnostic center in that locality, the total frequency of these chronic diseases may increase and some elderly Garo may have other chronic diseases.

In this study age, employment status, smoking behavior and drinking (alcohol) behavior have significant effect on self-reported health status. Age is a significant indicator of self assessment of poor health in this study. The oldest group perceived their health to be poorer than did the younger group. This finding is consistent with other studies conducted among older people of Thailand (Haseen et al., 2010), as well as indigenous Australians (Sibthorpe et al., 2001). This may be due to the fact that aging causes difficulty in physical movement. Employed elderly were less likely to report their health as poor. Elderly who had smoking habit were more likely and who had drinking (alcohol) behavior were less likely to report their health as poor, The positive effect of alcohol intake on self-assessed health status is an important finding in this study.

Since asthma and high blood pressure are statistically associated with smoking and drinking (alcohol) behavior, awareness initiatives have to be increased against tobacco and alcohol to prevent these diseases. The local health centers should focus on both preventive and curative measures of these two diseases as well as according to the most prevalent diseases. To identify the nature and extent of the health problems of the elderly Garo, large scale country wide survey is needed.

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