

Demography of Aging and Related Problems in Bangladesh

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Abstract: The present paper makes an attempt to study the pattern of aging by sex, locality and socio-culture, economic and health of the elderly in two communities-one urban and another rural, from Bangladesh. The primary data are obtained from a survey conducted in the month of September and October 2005. In the survey 214 elderly (60+) were recorded -160 male and 54 female, 123 urban and 91 rural, only one male was reported to be centenarian, in age groups 60-69, 70-79 and 80+ there were 83.37, 16.62 and .0046% elderly, respectively. 77.57% married couple with spouse, 69.2 living with spouse and children, 49.5% passed SSC examination-69.9% urban and 22% rural; 39.3% possessed annual household income Tk.5001-1000, 68.2% financially independent, as principal occupation-28% unemployed, 30.4% retired, 24.8% business; as smoking habits-56.1% non smoker, 24.3% smoker; alcohol addiction-97.2% never, 2.3% occasions. As abused elderly was- none 65.4%, mental 31.3%, physical 1.4%. From the multiple regression analysis shows that hearing has the highest standardized regression co-efficient. Similarly, leg has the second highest value, followed by vision, urinary incontinence, household income, smoking habit and occupation. The value of $R^2 = 0.305$, meaning that 30.5% variation of aged population is explained by house hold income, principal occupation, smoking condition, hearing, leg, depression, vision and urinary incontinence. From correlation matrix it was found that there were 9 positive values and the rest negative values. Correlation is found to be significant at the 0.01 level/ 0.05 levels. All respondents reported to be suffering occasionally from multiple health problems in waist, ankle, elbow, colic pain, dysentery, cough, headache, urinary incontinence scabies. Except 14 elderly, the rest feel weakness and feverish occasionally. The octogenarian respondent suffers from many health problems.

Key words: Urban, rural, health, aging

INTRODUCTION

As a result of declining fertility, mortality as well as improved public health interventions population aging has been a world-wide phenomenon. During 2000-2030, the population of persons aged 65 years and over of the world has been projected to increase by about 550 million to 973 million, increasing from 6.9 to 12% world wide, from 15.5 to 24.3% in Europe, from 12.6 to 20.3% in North America, from 6.0 to 12.0% in Asia, from 5.5 to 11.6% in Latin America and from 2.9 to 3.7% in Sub-Saharan Africa^[1].

The SAARC countries contain 6.92% aged population (60+) which is 15.62% of the total population of the world, 31.6% of the elderly population of Asia and 94.4% of the total elderly of South Asia. The total population of the SAARC countries is 23% of the total world population, 36.4% of the total Asia population and 93.4% of the total South Asia population. The total number of elderly population of the SAARC countries is estimated to be 186274 thousand in the year 2020- an increment of 100566 thousands from 1995. The %age of the aged population in SAARC countries is only 6.9% against 6.5% of aged population in Asia and 9.5% of the aged in the world in the year 1995. Such percentage values are

estimated to be 10.0, 12.66 and 12.8 time period of 25 year^[2].

The population of Bangladesh aged 60 years and above in 1911, 1951, 1981, 1991 and 2000 were 1.37, 1.86, 4.90, 6.05 and 7.2 millions, respectively. The projected elderly population aged 60 years and above in 2015 and 2025 will be 12.05 and 17.62 millions. It has been observed that this change will have serious consequences on the overall socio-economic development of the country^[3]. The rapid socio-economic and demographic transformations, extreme poverty (about 40% live under poverty level), changing socio-cultural values and mores, westernization, modernization, industrialization, individualism, drug addiction and participation of women in the economic activities outside home may force majority of the elderly population to be abandoned member in the community^[4].

Rahman^[5] writes the elderly poor of Bangladesh live in absolute poverty and ill health. They are highly dependent on others for food, clothing, shelter and healthcare, as they do not have regular sources of income. They show total faith and dependence on supernatural power and observe religious activities very earnestly. A very few poor elderly get sympathy and assistance from near and dear relatives, neighbours and friends. It is found that there are many physically and mentally

handicapped elderly, aged widows and widowers who survive on begging and charity. In 1998 the government of Bangladesh introduced allowance (Bayaska Bhata) for the elderly poor.

This study makes an attempt to undertake a study on socio-demographic and health profile of the elderly in Bangladesh for which a survey was completed in the month of October 2005.

International plan of action on aging: Being aware that an increasing number of the populations is aging the countries gathered in the World Assembly on aging at Vienna, Austria in 1982. Having discussed concern for the aging the World Assembly entails “that individually and collectively they will (i) develop and apply at the international, regional and national levels policies designed to enhance the lives of the aging as individuals and to allow them to enjoy in mind and in body, fully and freely, their advancing years in peace, health and security and (ii) study the impact of aging populations on development and that of development on the aging, with a view to enabling the potential of the aging to be fully realized and to mitigating, by appropriate measures, any negative effects resulting from this impact,

- Do solemnly reaffirm their belief that the fundamental and inalienable rights enshrined in the Universal Declaration of Human Rights apply fully and undiminished to the aging and
- Do solemnly recognize that quality of life is no less important than longevity and that the aging should therefore, as far as possible, be enabled to enjoy in their own families and communities a life of fulfillment, health, security and contentment, appreciated as an integral part of society^[2].

MATERIALS AND METHODS

This study is based on samples of the elderly taken from the rural area-a village in Mohanpur Upazila (Rajshahi District) and the urban area-a ward in Rajshahi Metropolitan City, Bangladesh. A sample size of 115 elderly from each sample area was taken and the survey was conducted in the month of September and October, 2005. Due to inaccuracy and/or lack of reliability of information, 16 cases were excluding from the analysis. Thus this study deals with 214 elderly.

The data at both macro level (household) and at the micro level (individual elderly) have been taken using a questionnaire on the socio-economic characteristics, health and other old age problems, attitude of family members towards elderly, familial relations and so on.

RESULTS AND DISCUSSION

Among the 214 respondents the female elderly 54 (25.23%) were much lower than the male elderly 160(74.77%), indicating, most probably, that due to unpaid family labour and sex discrimination in health care and food consumption, more female population in the study area died than that of male^[5]. Adnan^[6] observes “For the majority of women in Bangladesh, their ‘world’ consists of the immediate family and the households of near relatives and neighbours. Very few are involved in any other social institution beyond the family and this often applies to even middle class women in urban areas. Indeed, the boundaries of the homestead and its kin-based extensions, circumscribe the ‘indoor’ arena within which women spend most of their lives. Out of the 214 elderly only one male was octogenarian, 178 (83.17%) in age group 60-69, 130 (73.03%) male, 48(26.97%) female and 35 (16.36%) in age group 70-79, 29 (82.86%) male, 6 (17.14%) female (Table 1).

In the research area the elderly people are divided into three groups on the basis of their age like young-old(60-69), adult-old(70-79) and old-old(80+) and it is presented in the Table-2. Among the 214 elderly were respondents-123 urban and 91 rural. The Table shows that in the research area 60-69 years group is higher, which is 57.5%. The number of urban is higher than that of rural. The marital status of the aged in research area 77.57% married couple with spouse. On the other hand, we can see that 19.63% married but widows. The living arrangement of the aged 69.2% living with spouse and children, 19.6% living alone. On the basis of educational qualifications, 49.5% passed SSC examination, 20.6% passed primary to below SSC, 69.9% live in urban area and 22% in rural area. The household income, 39.3% possessed annual household income Tk. 5001-1000, 23.4% possessed annual income Tk. 1001-1500. The Table shows that 68.2% financially independent, 27.6% dependent and only 4.2% elderly people are partially dependent. As principal occupation, 28% unemployed, 30.4% retired, 24.8% business and only 7% elderly engaged in agriculture. The smoking habits of elderly are 56.1% non-smoker, 24.3% smoker and 19.6% ex-smoker. As alcohol addiction, 97.2% never, 2.3% occasional. In Bangladesh socio-culture norm is to show the elderly high esteem. People of all walks of life keep with the elderly a very friendly relation in almost all communities. It has been

Table 1: Distribution of respondents by age and sex

Age group	Male	Female	Total
60-69	130(73.03%)	48(26.97)	178(83.17%)
70-79	29(82.86%)	6(17.14%)	35(16.36%)
80+	1	-	1(0.47%)
Total	160(74.77%)	54(25.23%)	214(100%)

Table 2: Distribution of elderly according to rural, urban, status of liabilities in various socio-economic and demographic characteristics

Age group	Age group	Rural		Urban		Grand total	
		Frequency	(%)	Frequency	(%)	Frequency	(%)
	60-69	48	52.8	75	61.0	123	57.5
	70-79	29	31.9	37	30.0	66	30.8
	80+	14	15.3	11	9.0	25	11.7
	Total	91	100.0	123	100.0	214	100.0
Marital status	Married but widowed	14	15.4	28	22.8	42	19.63
	Separated	3	3.3	3	2.4	6	2.80
	Married with spouse living	74	81.3	92	74.8	166	77.57
	Total	91	100	123	100	214	100
Living arrangement	Alone	13	14.3	29	23.6	42	19.6
	With Spouse	10	11	8	6.5	18	8.4
	With Spouse and children	64	70.3	84	68.3	148	69.2
	Old age home	2	2.2	2	1.6	2	0.9
	Destitute	2	2.2	-	-	4	1.9
	Total	91	100	123	100	214	100
Education	Nil	21	23.1	4	3.3	25	11.7
	Below primary	28	30.8	11	8.9	39	18.2
	Primary to SSC	22	24.2	22	17.9	44	20.6
	Above SSC	20	22	86	69.9	106	49.5
	Total	91	100	123	100	214	100
House hold income	>5000	28	30.8	32	26	60	28
	5001-10000	35	38.5	49	39.8	84	39.3
	10001-15000	21	23.1	29	23.6	50	23.4
	15001-20000	5	5.5	8	6.5	13	6.1
	20001-25000	1	1.1	2	1.6	3	1.4
	25000+	1	1.1	3	2.4	4	1.9
	Total	91	100	123	100	214	100
Financially	Dependent	26	28.6	33	26.8	59	27.6
	Partially dependent	8	8.8	1	0.8	9	4.2
	Independent	57	62.6	89	72.4	146	68.2
	Total	91	100	123	100	214	100
Principal occupation	Agriculture	11	12.1	4	3.3	15	7
	Business	21	23.1	32	26	53	24.8
	Service	15	16.5	2	1.6	17	7.9
	Retired	10	11	55	44.7	65	30.4
	Begging	3	3.3	1	0.8	4	1.9
	Unemployed	31	34.1	29	23.6	60	28
	Total	91	100	123	100	214	100
Smoking condition	Smoker	26	28.6	26	21.1	52	24.3
	Non-smoker	45	49.5	75	61	120	56.1
	Ex-smoker	20	22	22	17.9	42	19.6
	Total	91	100	123	100	214	100
Alcohol	Never	87	95.6	121	98.4	208	97.2
	Occasional	3	3.3	2	1.6	5	2.3
	Regular	1	1.1	-	-	1	0.5
	Total	91	100	123	100	214	100
Nature of abuse	Physical	35	38.5	3	2.4	3	1.4
	Mental	56	61.5	32	26	67	31.3
	None of it	-	-	84	68.3	140	65.4
	Both	-	-	4	3.3	4	1.9
	Total	91	100	123	100	214	100

Table 3: Correlation matrix of dependent and independent variable

	Living arrangement	Education	House hold income	Principal occupation	Hearing problem	Leg	Depression	Vision	Urinary incon.	Age
Living arran.	1.000	.076	.207**	-.114	-.095	-.009	.037	-.068	-.011	-.151*
Education		1.000	.400**	-.174*	-.020	-.129	.241**	-.412**	.009	-.181**
Household			1.000	-.377**	-.083	-.064	.015	-.221**	-.108	.056
Prin.Occup				1.000	.088	.160*	-.194**	-.004	-.126	.171*
Hearing					1.000	.160*	-.136*	.168	-.226**	.405**
Leg						1.000	-.156*	.248**	-.456**	.310**
Depress							1.000	-.122	.215**	-.198**
Vision								1.000	-.145*	-.190**
Urinary									1.000	-.189**
Age										1.000

**Correlation is significant at the 0.01 level (2-tailed) *Correlation is significant at the 0.05 level (2-tailed)

Table 4: Estimated regression coefficient, standard error, calculated 't' and R^2 Value

Variables	Regression coefficient	Standard error	Calculated 't'	R^2 Value
(Constant)	36.124	6.347	5.691	
House hold income	1.387	.464	2.989*	
Principal Occupation	.694	.298	2.330*	
Smoking condition	.922	.677	1.362	0.305
Hearing	10.619	1.796	5.912**	
Leg	7.064	2.108	3.351*	
Depression	-1.295	.943	-1.374	
Vision	2.198	1.146	1.918	
Urinary incontinence	2.083	1.764	1.181	

a Dependent variable: AGE *Significant at 5% level, **Significant at 1% level

found that elder abuse is linked to concerns about family caregivers. Particularly stress is placed on the problems of the elderly with dementia^[7,8]. The word elder abuse refers to the ill-treatment of an elderly-occur both in domestic settings, own home, a relatives home, in nursing homes and hospitals. Some kinds of behaviour defined as abuse or the restrain of someone who is aggressive, may seem much more contingent upon particular circumstances. A recent review of the researches on elder abuse suggests that under the category of elder abuse there is a diversity of problems and that it is of fundamental importance to distinguish these (Mc Creadie^[9]). In the study area nature of abused elderly are 65.4% none, 31.3% mental and 1.4% physical (vide Table 2).

Table 3 represent the correlation matrix of dependent and each of the independent variables as well as among the independent variables. The Table shows that among the independent variables, correlations are generally low. As expected, hearing has the highest correlation with age. The second highest correlation is observed between the leg and age. Out of 45 correlation co-efficient 15 of them have values less than or equal to 0.10, which suggests a low degree of multi-collinearity.

Let Y be the aged population and X be a vector of explanatory variables (such as house hold income, principal occupation, smoking condition, hearing, leg, depression, vision, urinary incontinence etc.). Then the multiple linear regression model can be described as follows:

$$Y = \beta_0 + \beta_i X_i + U, \quad i = 1, 2, 3, 4, 5, 6, 7, 8$$

Where Y= Aged population, X_1 = House hold income, X_2 = Principal occupation, X_3 = Smoking condition, X_4 =Hearing problem, X_5 = Leg, X_6 = Depression, X_7 = Vision, X_8 = Urinary incontinence, β_i 's are regression co-efficients and U is the error term.

There are nine variables are available for this study. To find out the relevant factors affecting the selected variable Y, the variable has been regressed on the other eight variables using SPSS/PC+ software programme^[10]. The result of multiple regression model are represented in Table 4. This Table shows the regression co-efficient, standard error, calculated t and R^2 values. This result indicates that has X_6 the negative effect while X_1 , X_2 , X_3 ,

X_4 , X_5 , X_7 and X_8 have the positive effect on Y. This result shows that hearing has the largest standardized regression co-efficient and hence the highest relevant importance in predicting Y. Similarly leg has the second highest value, followed by vision, urinary incontinence, household income, smoking, principal occupation. The Table shows that $R^2 = 0.305$, meaning that 30.5% variation of Y is explained by X_1 , X_2 , X_3 , X_4 , X_5 , X_6 , X_7 and X_8 . Out of eight predictors, four have shown statistically significant.

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