Life of Older People of Northern Bangladesh: A Welfare Analysis

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Abstract: The present study was considered to find out socio-economic, demographic, health status and various aspects of life of older people at northern Bangladesh. A total of 270 older person of age 60 and above from different district of northern Bangladesh was selected through simple random sampling. The results found that maximum older peoples' education level was low and their socio-economic condition was also low. Most of them were suffering from different health problems (54.81%). About 57.41% older people was not fully satisfied with own happiness and 62.22% older people was not fully satisfied with their health. Also 57.41% older people were not feeling fully safe at home. This rate was higher at Gaibandha district (90.00%) and lower at Dinajpur district (40.00%). Binary logistic regression analysis showed that age, gender, religion, education level and main source of family income were the significant variable for satisfaction with own happiness. Also age, religion, monthly income was found significant variables for satisfaction with health of older people. Overall socioeconomic status of the households should be improved through education, family income, health environment in order to help them lead socially useful, healthy and save life.
Keywords: Socio-demographic and Economic, Health, Asset of life, Happiness, Older people.

I. INTRODUCTION

Today, we no longer have a shared map for the course of life. The timing of major life events has become less and less predictable at all levels of society. In any case, life at old age becomes typically more fragmented, disorderly, and unpredictable. Major events of life are no longer parts of a predictable or natural pattern. Although the rigidity of the linear life plan has failed to keep up with new demographic realities, it offered a degree of security. In the new post-industrial life, people are increasingly isolated. Familiar social institutions like marriage and employment can no longer be counted on for security throughout adulthood, and therefore the last stage of life also becomes less predictable. Society has not yet come to terms with the meaning of "aging" in such unpredictable times. The latest population census of Bangladesh (BBS, 2011) showed that 7.4 percent of its population is older. This percentage of older population is projected to increase 8.0 percent in 2020, 11.9 percent in 2035 and 17.0 percent in 2050. The median age of Bangladeshi population is projected to increase by about 15 years over the next half century (i.e. from 2000 to 2050). The ageing index i.e. the ratio of the people aged 60 or over to children under 15 years of age will be about 5.7 times higher over the next half century (i.e. between 2000 and 2050) for Bangladesh due to the growing number of older persons and reduction of young population. The life expectancy of Bangladeshi population has increased to 68 years in 2011 from only 39.93 years during the independence. All these are related to the rapid increase of the older population over the years. In this situation rapid increase of older population is challenging and creating a serious impact on the health status and quality of life (Khan et al. 2014). Therefore, the number of older in the developing world is increasing due to demographic transition such as geographical change, socio-economic changes, and westernization at lifestyle.

In Bangladesh, half of the population spends their lives under poverty and older people are considered a burden for the family and society. This is both male and female elder but especially true for elder women, who suffer from multiple disadvantages resulting from bias to gender, widowhood and elderly. They suffer from some basic human problems, viz poor financial support, senile diseases and absence of proper health and medical care facilities, exclusion and negligence, deprivation and socio-economic insecurity (Banglapedia, 2003). More than 70% of elderly men being in paid work while older women being unpaid work (Kabir, 2001). The older have to face different types of unexpected situation like avoidance, social isolation, and insecurity in their social and family life (Barkat et al.2003). These are affecting the lifestyle of the elders. Health status, available social support and psychological well-being are considered as important factors in determining the lifestyle of older. Most of the older people lead low quality of life that about 40.0%, very bad 18.3%, moderate

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38.3% and only 3.3% lead good quality of life (Sharmin, 2015). In poor and developing countries, the old generation not always welcomed because of many social and economic factors. During old age non-communicable diseases like diabetes, hypertension, stroke, cancer, chronic, obstructive lung diseases, cataract, prostate problem, hormonal problems in female, predominate one's life (Khan et al. 2014). There is also an increased chance of fall, traumatic injury, fractures, dementia, impaired hearing and vision. All these make the life of an old person unproductive, incapable and they become burden to their family and society

Some steps have already taken to support the senior citizens in Bangladesh. Due to lack of proper implementation of these steps, it is not effective for the older. Some NGOs are directly and indirectly involved with the elderly issues to improve quality of life but, their activities are not so strong to mention (Rahman, 2011). In Bangladesh, some steps such as Pension, Old Age Allowance Programmed (Boyoshko Bhata Karmashuchi) have already been taken by the government, NGOs, welfare societies. Lack of carefulness and willingness to implement these policies, elderly are deprived from their basic needs that hamper in their lifestyle. A good number of studies were previously conducted to known the causes and consequences of the aging (Kalam and Khan, 2006) and their projected distribution (Hossain, 2005), their needs (Kalam and Khan, 2006) and health condition (Munsur et al, 2010). Therefore, this study was conducted to assess the socio-demographic profile, health status and life of the older people in Northern Bangladesh.

II.   METHODOLOGY

2.1 Study area
The present study was conducted at different part of northern Bangladesh. The area was taken as the basis of purposive techniques.

2.2 Population and units of analysis
All older people (60 years and above) living in the study area are the population of the study. All older people above 60 years were considered in the population of the study and every older person was the unit of analysis.

2.3 Sampling design and sample size
A simple random sampling technique was used in the present study. For this study, 270 estimated sample was selected from the study area. Information about socio-demographic, economic, health environments and various aspects of life of older people were collected by using structured questionnaire with direct interview method from 270 estimated sample respondents. Respondents (both male and female) were selected purposively and they are considered irrespectively of race, age, color, sex and culture.

2.4 Statistical analysis
Tabular analysis was used to preparation of simple tables of proportions describing the concentration of categorical variables and bivariate tables showing the relationship or association between two categorical variables. Chi-square ($\chi2$) – test was used to test the significance of associations between two categorical variables. Binary logistic regression was also used to find the risk factors.

III.   Results and Discussion

The first paragraph under each heading or subheading should be flush left, and subsequent paragraphs should have a five-space indentation. A colon is inserted before an equation is presented, but there is no punctuation following the equation. All equations are numbered and referred to in the text solely by a number enclosed in a round bracket (i.e., (3) reads as "equation 3"). Ensure that any miscellaneous numbering system you use in your paper cannot be confused with a reference [4] or an equation (3) designation.

3.1 Socio-economic and demographic characteristics of older people
Table 1 showed the percentage distribution of different socio-economic and demographic characteristics of older people in northern Bangladesh. The table showed that 40.37% older peoples age was 60-64 years, 25.56% older peoples age was 65-69 years, 19.25% older peoples age 70-74 years and older peoples age 75 and above years was 14.81%. Among them 68.52% were male and 31.48% were female where as 92.96% were belongs Islam and 7.04% were belongs Hindu & others religion. About 42.59% older people's education was primary, 29.63% was secondary, 10.00% was graduated and 17.78% was post-graduate level. It means that the education level of the older people was low. Majority older peoples previous occupation was farmer (35.19%) and rest of them was service holder (20.37%), business man or day laborer (20.74%) and housewife (23.70%). Older people's present occupation was farmer (15.19 %) and rest of them was service holder (10.37 %), business man or day laborer (29.26 %) and housewife/do nothing (45.19 %). About 39.26 % families had 1 to 4 person, 31.48 % families had 5 to 6 person and 29.26 % families had 7 & above person. In 55.93% families cultivated land size was less than 100 decimal and in 21.48% families cultivated land size was

100 to 199 decimal. Their main source of family income was farmer (54.44%), business or day laborer (20.74%) and service (24.81%). About 13.33% families monthly income less than 5000 BDT, 19.63% families monthly income 5000-9000 BDT, 19.26% families monthly income 10000-14000 BDT and 47.78% families monthly income 15000 and above BDT. About 28.15% families' monthly food expenditure was less than 5000 BDT, 34.44% families monthly food expenditure was 5000-9000 BDT, 27.04% families monthly food expenditure was 10000-14000 BDT and 10.37% families monthly food expenditure was 15000 and above BDT.

Table 1: Percentage distribution of different socio-demographic and economic characteristics of older people in northern Bangladesh.

Variables	Categories	No.	%
Age of respondent (years)	60-64	109	40.37
	65-69	69	25.56
	70-74	52	19.26
	75 and above	40	14.81
Gender of respondent	Male	185	68.52
	Female	85	31.48
Religion of respondent	Islam	251	92.96
	Hindu & Others	19	7.04
Education of respondent	Primary	115	42.59
	Secondary	80	29.63
	Graduate	27	10.00
	Post-graduate	48	17.78
Previous occupation of respondent	Farmer	95	35.19
	Service	55	20.37
	Business/Day laborer	56	20.74
	Housewife	64	23.70
Present occupation of respondent	Farmer	41	15.19
	Service	28	10.37
	Business/Day laborer	79	29.26
	Housewife/Do nothing	122	45.19
Total family members	1-4 person	106	39.26
	5-6 person	85	31.48
	7 & above person	79	29.26
Cultivated land size (Decimal)	Less than 100	151	55.93
	100-199	58	21.48
	200 & above	61	22.59
Main source of family income	Farmer	147	54.44
	Service	67	24.81
	Business/Day laborer	56	20.74
Monthly family income (BDT)	Less than 5000	36	13.33
	5000-9000	53	19.63
	10000-14000	52	19.26
	15000 and above	129	47.78
Monthly family food expenditure (BDT)	Less than 5000	76	28.15
	5000-9000	93	34.44
	10000-14000	73	27.04
	15000 and above	28	10.37

Chi square test showed the association between different socio-demographic and economic characteristics with satisfied with health and satisfied with own happiness of older people in northern Bangladesh in Table 2. Here age of respondent (years), education of respondent and monthly family food expenditure (BDT) were significantly associated with satisfied with health, but age of respondent (years), gender of respondent and education of respondent were significantly associated with satisfied with own happiness.

Variables	Categories	Satisfied with health (%)		Satisfied with own happiness (%)	
		Fully satisfied	Not fully	Fully	Not fully
Age of respondent (years)	60-64	44.12	38.10	46.09	36.13
	65-69	31.37	22.02	3.043	21.94
	70-74	16.67	20.83	16.52	21.29
	75 and above	7.84	19.05	6.96	20.65
χ2 Value		8.69*		12.61**	
Gender of respondent	Male	72.55	66.07	79.13	60.65
	Female	27.45	33.93	20.87	39.36
χ2 Value		1.23^NS		10.45**	
Religion of respondent	Islam	95.10	91.67	94.78	91.61
	Hindu & Others	4.90	8.33	5.22	8.39
χ2 Value		1.14^NS		1.01^NS	
Education of respondent	Primary	33.33	48.21	33.04	49.68
	secondary	37.25	25.00	38.26	23.23
	Graduate	12.75	8.33	13.91	7.10
	Post-graduate	16.67	18.45	14.78	20.00
χ2 Value		7.86*		13.40**	
Previous occupation of respondent	Farmer	35.29	35.12	38.26	32.90
	Service	23.53	18.45	25.22	16.77
	Business/Day laborer	20.59	20.83	18.26	22.58
	Housewife	20.59	25.60	18.26	27.74
χ2 Value		1.47^NS		5.9^NS	
Present occupation of respondent	Farmer	16.67	14.29	16.52	14.19
	Service	10.78	10.12	10.43	10.32
	Business/Day laborer	28.43	29.76	29.57	29.03
	Housewife/Do nothing	44.12	45.83	43.48	46.45
χ2 Value		0.34^NS		0.37^NS	
Total earner family members	One person	40.20	51.79	44.35	49.68
	Two person	39.22	29.76	37.39	30.32
	three & above person	20.59	18.45	18.26	20.00
χ2 Value		3.65^NS		1.48^NS	
Cultivated land size (Decimal)	Less than 100	50.00	59.52	58.26	54.19
	100-199	20.59	22.02	19.13	23.23
	200 & above	29.41	18.45	22.61	22.58
χ2 Value		3.79^NS		0.71^NS	
Main source of family income	Farmer	51.96	55.95	56.52	52.90
	Service	28.43	22.62	20.87	27.74

Table 2: Association between different socio-demographic and economic characteristics with satisfied with health and satisfied with own happiness of older people in northern Bangladesh.

	Business/Day laborer	19.61	21.43	22.61	19.35
χ2 Value		3.22^{NS}		1.75^{NS}	
Monthly family income (BDT)	Less than 5000	9.80	15.48	13.04	13.55
	5000-9000	13.73	23.21	17.39	21.29
	10000-14000	18.63	19.64	19.13	19.35
	15000 and above	57.84	41.67	50.43	45.81
χ2 Value		2.06^{NS}		0.82^{NS}	
Monthly family food expenditure (BDT)	Less than 5000	19.61	33.33	24.35	30.97
	5000-9000	36.27	33.33	33.04	35.48
	10000-14000	28.43	26.19	31.30	23.87
	15000 and above	15.69	7.14	11.30	9.68
χ2 Value		7.95*		2.66^{NS}	
Note: Level of significance: *P<0.05, **P<0.01, NS= Not Significant.					

3.2 Health status of older people

Table 3 described the percentage distribution of health status of older people in northern Bangladesh. Most of the older people were suffering more than one disease. Some of them were suffering three diseases at a time. About 54.82% older people reported that they have on-going medical problem. Among them 64.38% older people reported that their first on-going medical problem was health: diabetics, high blood pressure, asthma, heart problem etc., 19.86% were reported that their first on-going medical problem was visual, 8.85% older people reported that their first on-going medical problem was hearing and 8.90% older people reported that their first on-going medical problem was physical: pain, back pain, bon pain etc. Older people's second on-going medical problem was found visual 20.42%, hearing 32.65% and physical was 20.40%. Older people's third on-going medical problem was health 53.34% and physical 46.66%. This was a result of careless of their family members. Because only about 8.52% older peoples said that they were seen a doctor once a week or more in last three months. Beside this about 11.10%, 27.04% and 35.19% older peoples were said that they were seen a doctor every two weeks, once a month and one or two times in last three months respectively. But about 18.15% older peoples were said that they have not seen a doctor over the past three months. This was a matter of thinking.

Table 3: Percentage distribution of health status of older people in northern Bangladesh.			
Variables	Categories	No.	%
On-going medical problem	Yes	148	54.82
	No	122	45.19
First on-going medical problem	Health	94	64.38
	Visual	29	19.86
	Hearing	10	6.85
	Physical	13	8.90
Second on-going medical problem	Health	13	26.53
	Visual	10	20.42
	Hearing	16	32.65
	Physical	10	20.40
Third on-going medical problem	Health	8	53.34
	Physical	7	46.66
Seen a doctor over the past 3 months	None	49	18.15
	One or two times	95	35.19
	Once a month	73	27.04
	Every two weeks	30	11.10
	Once a week or more	23	8.52

We coded the variable satisfied with health into two categories for performing logistic regression analysis, i.e. not fully satisfied as code 1 and fully satisfied as code 0. To identify the risk factors of satisfied with health of the older people of northern Bangladesh, the logistic regression analysis was performed. Different socio- economic and demographic variables such as age of respondents, gender of respondent, religion of

respondent, education of respondent, previous occupation of respondent, present occupation of respondent, marital status, family size, ownership of house, main sources of family income, economic difficulties, monthly family income, monthly family food expenditure were inserted in the binary logistic regression model as independent categories.

From Table 4, the significant studied variables for satisfied with health of the older people of northern Bangladesh. The variables like age of respondent, religion and monthly family income were statistically significant with satisfied with health of elder people of northern Bangladesh. Older people with age 75 and above were 3.73 times higher risk of being not fully satisfied with health than older people aged 60-64 years. It implied risk of not fully satisfied with health reduce with increase of their age. In Hindu & others families, older people were 2.76 times higher risk of being not fully satisfied with health than older people from Islam holding families. That indicated that older people from Hindu and others families suffer more for health at their old age. Older people's family's monthly income BDT less than 5000 and BDT 5000-9000 were 2.80 and 2.71 times higher risk of being not fully satisfied with health than older people's family's monthly income BDT 15000 and above. It implied risk of not fully satisfied with health reduce with increase of their monthly family income. This is a common scenario of our country. If monthly income was high then they could spend money for health related issues and gain more satisfied with health. In low income families they couldn't maintain their expenditure on health issues. For that they didn't achieve better health satisfaction.

Table 4: Results of binary logistic regression analysis of significant studied variables for satisfied with health of older people in northern Bangladesh.

Variables	Categories	B	S.E.	P value	Odds Ratio (OR)	95% C.I. for OR	
						Lower	Upper
Age of respondent (years)	60-64 (RC)	-	-	-	1.00	-	-
	65-69	-0.12	0.32	0.70	0.88	0.47	1.66
	70-74	0.39	0.36	0.28	1.48	0.72	3.03
	75 and above	1.31	0.45	0.00	3.73[**]	1.52	9.14
Religion of respondent	Islam (RC)	-	-	-	1.00	-	-
	Hindu & Others	1.01	0.55	0.05	2.76[*]	0.92	8.21
Monthly family income (BDT)	Less than 5000	1.03	0.42	0.01	2.80[**]	1.21	6.45
	5000-9000	1.00	0.37	0.00	2.71[**]	1.31	5.61
	10000-14000	0.44	0.35	0.20	1.55	0.78	3.09
	15000 and above	-	-	-	1.00	-	-
Constant		-0.18	0.25	0.47	0.83	-	-
Note: RC-Reference category; Level of significance: [*]P<0.05, [**]P<0.01.							

3.3 Different aspects of life of older people

Table 5 represented the percentage distribution of different aspects of life of older people in northern Bangladesh. Results describe that all older people were given food at three times in a day. Older people have cloths compared with more than others were 8.52%. Older people of cloths have compared with others average was 62.52%. Older people cloths have compared with others less was 62.52%. About 11.11% older people said that they almost always do nothing in spare time and 64.81% older people said that they sometimes do nothing in spare time. About 50.37% older people watching TV one to two hour and 19.26% older people watching TV three and above hours each day. But about 30.37% older people do not watch TV whole day. About 24.07% older peoples talk with a close friend daily where as 21.48% older peoples talk with a close friend less than once a month. Almost always someone show care to older peoples when feeling sad or depressed were about 33.67% and sometimes someone show care to older peoples when feeling sad or depressed were about 52.67%. About 62.96% older peoples reported that sometimes someone else wants to do something special for them. About 35.93% older people can sleep well sometimes but 2.22% older people never sleep well. About 90.00% older peoples reported that they always safe at home but about 9.26% older peoples reported that they sometimes and 0.74% older peoples reported that they never safe at home. Only 4.07% older people said that they never worried or anxious during the day where as 39.63% said that they always and 56.30% said that they sometimes worried or anxious during the day.

Table 5: Percentage distribution of different aspects of life of older people in northern Bangladesh.

Variables	Categories	No.	%
Cloths have compared with others	More	23	8.52
	Average	169	62.59
	Less	78	28.89
Do nothing in spare time	Almost always	30	11.11
	Sometimes	175	64.81
	Not at all	65	24.07
Watching TV each day (hours)	No	82	30.37
	1-2	136	50.37
	3 & above	52	19.26
Talk with a close friend	Daily	65	24.07
	Several times a week	73	27.04
	Once a week	33	12.22
	Once a month	41	15.19
	Less than once a month	58	21.48
Someone show care of you when feeling sad or depressed	Almost always	22	8.15
	Usually	99	36.67
	Sometimes	142	52.59
	Never	7	2.59
Someone else want to do with you something special	Always	85	31.48
	Sometimes	170	62.96
	Never	15	5.56
Sleep well	Always	167	61.85
	Sometimes	97	35.93
	Never	6	2.22
Safe at home	Always	243	90.00
	Sometimes	25	9.26
	Never	2	0.74
Worried or anxious during the day	Always	107	39.63
	Sometimes	152	56.30
	Never	11	4.07

3.4 Satisfaction with life areas of older people

At old age, people were more conscious about their health and safety. They enjoyed their relationship with friends, doing things outside at home, their own happiness, achievement in life. Figure 1 showed the percentage distribution of fully satisfaction of older people in northern Bangladesh. The figure represent that only 47.78 % was fully satisfied with things they have own, 37.78% was fully satisfied with their health, 35.19% was fully satisfied with their achievement in life, 33.33% was fully satisfied with their close relationship with friends, 42.59% was fully satisfied with feel safe, 31.85% was fully satisfied with doing things with people outside at home and 42.59% was fully satisfied with their own happiness. This was a deplorable situation of older people in terms of satisfaction. Majority of them were not fully satisfied with different parts of their life. They become more depressed and helpless. When they were alone, have to do nothing, not so good relationship with others, they become unhappy. Therefore, they become sick mentally and physically.
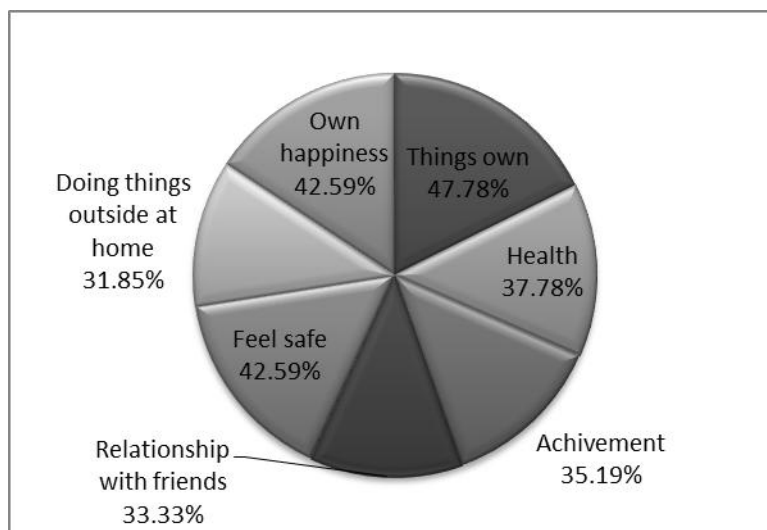
Fig. 1. Percentage distribution of fully satisfied of older people in Northern Bangladesh.

A Huge percentage of people did not feel fully safe at home. Figure 2 described safety status of older people according to different districts of northern Bangladesh. In Dinajpur and Joypurhat district, about 60.00% older people were feeling fully safe where as in Bogra, Kurigram and Gaibandha only 43.33%, 36.67% and 10.00% older people were feeling fully safe at their home. This was a critical situation in terms of older people's safety. In Gaibandha district, this term was more serious. In this term, Dinajpur and Joypurhat district ware more safe for older people. They are neglected and violated by their family members. For this, they were losing their confidence and self respect.
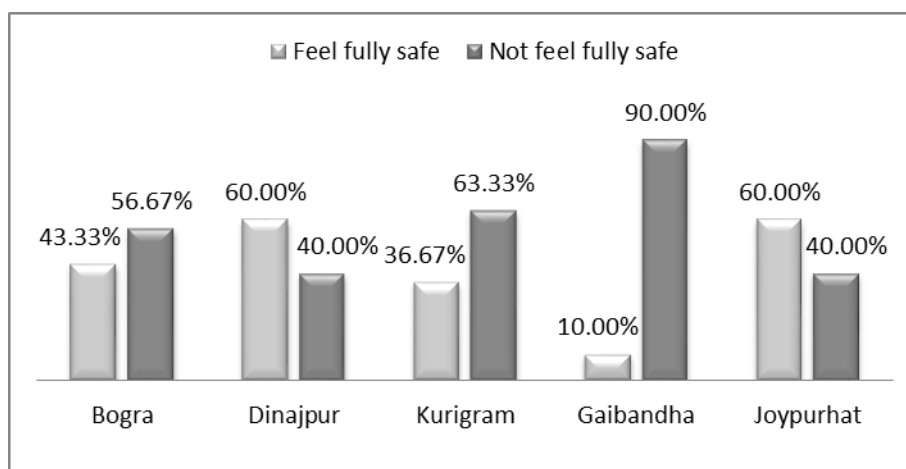

Fig. 2. Feel safe percentage of older people according to different district of Northern Bangladesh.

For performing logistic regression analysis, we coded the satisfied with own happiness into two categories i.e. not fully satisfied as code 1 and fully satisfied as code 0. To identify the risk factors of satisfied with own happiness of the older people of northern Bangladesh, the logistic regression analysis was performed. Different socio- economic and demographic variables such as age of respondents, gender of respondent, religion of respondent, education of respondent, previous occupation of respondent, present occupation of respondent, marital status, family size, ownership of house, main sources of family income, economic difficulties, monthly family income, monthly family food expenditure were inserted in the binary logistic regression model as independent categories.

Table 6 showed the significant studied variables for satisfied with own happiness of the older people of northern Bangladesh. The variables like age of respondent, gender of respondent, religion of respondent, education of respondent and main source of family income were statistically significant with satisfied with own happiness of older people of northern Bangladesh.

Older people with age 75 and above were 3.41 times higher risk of being not fully satisfied with own happiness than older people aged 60-64 years. It implied risk of not fully satisfied with own happiness reduce with increase of their age. Female older people were 2.33 times higher risk of being not fully satisfied with own

happiness than male elder people. This indicated that females were not fully satisfied with own happiness at their older age. This is a common scenario of Bangladesh. In Hindu & Others families, older people were 2.74 times higher risk of being not fully satisfied with own happiness than older people from Islam holding families. It means in Islam holdings families; older people were fully satisfied with their own happiness.

Older people with education graduate and secondary were 0.25 and 0.36 times lower risk of being not fully satisfied with own happiness than older people with education post-graduate. It implied risk of not fully satisfied with own happiness reduce with decrease of their education. Because higher educated people, make their children higher educated also. Higher educated children stay far from home for build up their career. After completing their studies, they didn't come back to home at their parents because of their service life. For that, at older age parents feel alone, isolated, unhappy and miss their family members. Older people whose main source of family income was farmer and business or day labour were 0.34 and 0.42 times lower risk of being not fully satisfied with own happiness than older people whose main source of family income was service. It implied that, older people whose main source of family income was farmer or business or day labour were more satisfied with their own happiness at older age. Because they could spend more time with family members, neighbors, friends, peoples from outside etc. at their younger age to old age. They had people when they need at their side. But service holders couldn't spend their time with their family members, neighbors, friends, people from outside etc. So they become more prone to not fully satisfied with their life.

					Odds Ratio (OR)	95% C.I. for OR	
Variables	Categories	B	S.E.	P value		Lower	Upper
Age of respondent(years)	60-64 (RC)	-	-	-	1.00	-	-
	65-69	-0.36	0.33	0.28	0.69	0.36	1.34
	70-74	0.63	0.37	0.09	1.88	0.89	3.94
	75 and above	1.22	0.47	0.01	3.41**	1.35	8.58
Gender of respondent	Male (RC)	-	-	-	1.00	-	-
	Female	0.84	0.30	0.01	2.33**	1.27	4.26
Religion of respondent	Islam (RC)	-	-	-	1.00	-	-
	Hindu & Others	1.01	0.55	0.05	2.74*	0.92	8.15
Education of respondent	Primary	0.17	0.38	0.64	1.19	0.55	2.55
	Secondary	-1.00	0.42	0.01	0.36**	0.16	0.83
	Graduate	-1.38	0.59	0.02	0.25*	0.07	0.80
	Post-	-	-	-	1.00	-	-
Main source of family income	Farmer	-1.05	0.39	0.01	0.34**	0.16	0.75
	Business/Day	-0.86	0.44	0.05	0.42*	0.17	1.00
	Service (RC)	-	-	-	1.00	-	-
Constant		0.94	0.52	0.07	2.56	-	-

Table 6: Results of binary logistic regression analysis of significant studied variables for satisfied with own happiness of older people in northern Bangladesh.

Note: RC-Reference category; Level of significance: *$P<0.05$, **$P<0.01$.

IV. CONCLUSION

Most of the older peoples' socio-economic and demographic condition was very low and majority of them lives under poverty. Analysis of the different aspects of life of the older peoples shows that, it was very low. Also their satisfaction with life areas was not so good. Furthermore, it has also been found that some variable have a significant effect on satisfied with own happiness. Chi square test showed that respondents' age, education and monthly family food expenditure (BDT) were significantly associated with satisfied with health, but age of respondent, gender of respondent and education of respondent were significantly associated with satisfied with own happiness. They mostly suffer from different diseases but some of them have not seen a doctor. Logistic regression analysis shows that respondent's age, gender, religion, education and family's main source of income significantly affect the happiness satisfaction of older peoples.

REFERENCES

[1]. BBS (2011), Population & Housing Census Report. Bangladesh Bureau of Statistics, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka, Bangladesh.

[2]. Khan, M. N., Mondal, M. N. I., Hoque, N., Islam, M. S. and Shahiduzzaman, M. (2014). A study on quality of life of elderly population in Bangladesh. *American Journal of Health Research, 2014; 2(4): 152-157 doi: 10.11648/j.ajhr.20140204.18*.

[3]. Banglapedia (2003). Encyclopedia of Bangladesh, Vol.1, Asiatic Society of Bangladesh, Dhaka, Bangladesh.

[4]. Kabir, Z. N.; (2001). The Emerging Elderly Population in Bangladesh: Aspects of Their Health and Social Situation. Department of Clinical Neuroscience, Occupational Therapy and Elderly Care Research (NEUROTEC), Bangladesh.

[5]. Barkat, A., Ara, R., Sattar, A., Poddar, A. and Hossain, T. (2003), Chronic Poverty among Older People in Bangladesh, Human Development Research Centre Dhaka, Bangladesh.

[6]. Sharmin, S. (2015). Quality of Life among Elder People at Elderly Care Homes in Bangladesh. Bangladesh Health Professions Institute (BHPI), Faculty of Medicine, University of Dhaka, Bangladesh.

[7]. Rahman K. M. M. (2011). Policy Brief on Present Social Context and Elderly Populationin Bangladesha. Center for research and action on development; Unnayan Onneshan, Bangladesh.

[8]. Kalam, I. M. S. and Khan, H. T. A. (2006). Morbidities Among Older People in Bangladesh: Evidence From an Ageing Survey. *BRAC University Journal, vol. III, no.2, pp. 75-83*.

[9]. Hossain M.R. (2005). Aging in Bangladesh and its population projections. *Pakistan journal of social science 3(1): 62-67*.

[10]. Munsur, A. M.; Tareque, I.; Rahman, K. M. M.; (2010). Determinants of Living Arrangements, Health Status and Abuse among Elderly Women: A Study of Rural Naogaon District, Bangladesh. *Journal of International Women's Studies, vol 11(4), 162-176*.