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Socio-economic and family planning aspects of rural people in Bangladesh: A case study of Comilla District

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The main focus of this study is to investigate the socio-economic and demographic characteristics of some villages in a particular area of Bangladesh. Since Bangladesh is a rural based country, it is essential to study a village in particular to conclude on the socio-economic characteristics and family planning of Bangladesh as a whole. For this study, some villages have selected from Comilla District. Initially, the study was planned to cover all the rural families of villages. Our population is the total number of respondents of the villages in Comilla District and 500 respondents were taken as the sample. After collecting data, Information were arranged in different tables and analyzed. For the analysis, various tests were performed such as Chi square test, t-test, correlation test and logistic regression. This study shows the income and expenditure pattern of the respondents, literacy among the villagers, the nature of the households, family planning behavior of the study population, occupation of the householders and some others economic and demographic characteristics.

Key words: Socio-economic, family planning, rural area, Bangladesh.

INTRODUCTION

Bangladesh is one of the developing countries and also a poor country in the world. It is one of the largest and most densely populated countries of the world with an area of l47,570 square kilometers(56,977 square miles). It lies in the northeastern part of south Asia between 20°34' and 26°38' north latitude and 88°0l' and 92°4l' east longitude. Bangladesh enjoys generally a sub-tropical monsoon climate. The population of Bangladesh as of 15 March, 2011 is 142.3 million (Population Census Report of Bangladesh, 2011) much less than recent (2007–2010) estimates of Bangladesh's population ranging from 150 to 170 million, and it is the 8th most populous nation in the world. In 1951, the population was 44 million. It is also the most densely populated large country in the world, and it ranks 11th in population density, when very small countries and city-states are included. The population of the country is growing at approximately the rate of l.59 percent per annum The percentage of urban population is 27% while that of rural is 73%. Bangladesh's population growth rate was among the highest in the world in the 1960s and 1970s, when the country swelled from 65 to 110 million.

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With the promotion of birth control in the 1980s, the growth rate began to slow. The fertility rate now stands at 2.55, lower than India (2.58) and Pakistan (3.07) The population is relatively young, with 34% aged 15 or younger and 5% aged 65 or above. Life expectancy at birth is estimated to be 70 years for both males and females in 2012. Despite the rapid economic growth, about 26% of the country still lives below the international poverty line which means living on less than $1.25 per day. The overwhelming majority of Bangladeshis are Bengali, constituting 98% of the population. The others are mostly Biharis and indigenous tribal groups. There is also a small but growing population of Rohingya refugees from Burma around Cox's Bazaar, which Bangladesh seeks to repatriate to Burma. The tribal peoples are concentrated in the Chittagong Hill Tracts in the southeast. There are 45 tribal groups located in this region, the largest being the Chakma. The Hill Tracts region has been a source of unrest and separatism since and before the inception of Bangladesh. Outside the Hill Tracts, the largest tribal groups are the Santhals and Garos (Achiks), while smaller groups include the Kaibarta, Meitei, Mundas, Oraons, and Zomi.

The literacy rate of the country is 59.82%, according to 2012 for population of five years and above. Bangladesh has a low literacy rate, estimated at 61.3% for males and 52.2% for females in 2010. The educational system in Bangladesh is three-tiered and highly subsidized. The Government of Bangladesh operates many schools in the primary, secondary, and higher secondary levels. It also subsidies parts of the funding for many private schools. In the tertiary education sector, the government also funds more than 15 state universities through the University Grants Commission. Islam is the largest religion of Bangladesh; Islam contributes 90.4% of population, Hinduism contributes 8.2% of the population, Buddhism contributes 0.7% of the population, Christianity, 0.6% and others, 0.1% of the population. The majority of Muslims are Sunni, roughly 4% are non-denominational Muslims and a small number are Shia. Bangladesh has the fourth largest Muslim population after Indonesia, Pakistan and India. Over-population along with poverty is a great problem in Bangladesh. The socio-economic status is declining with the increase of population. In fact, the socio-economic set-up is in bad shape especially in the rural areas. In the rural areas there are few facilities of proper education, doctors and medicine, public health, community development etc. Our Bangladesh is an over populated country of which maximum members is living in the village in poor condition. It is well-known that Bangladesh is a rural based country and more than 73% people of total population (about 14.5 million) live in the villages. Obviously, most of the villages are representing the whole country in economic, social, educational and all other areas. So it is apparent that the prosperity of the country completely depends on the development of its villages. The normal income is also dependent on the economic development of the peoples living in the villages. So, to find out the socio-economic and demographic conditions of our country one should be interested to see the socio-economic and demographic conditions of the villages in Bangladesh. To carry on a worthwhile project report on socio-economic and demographic patterns, it is selected purposively some villages situated in District Comilla. It is easy to collect reliable and valid information from the selected villages. However, it is not possible to collect broad based socio-economic and demographic information of the number of villages due to short time and money constraints.

Comilla District (Chittagong Division) with an area of 3085.17 sq km, is bounded by Brammanbaria and Narayan Ganj districts on the north, Noakhali and Feni districts on the south, Tripura (state of India) on the east, MunshiGanj and Chandpur districts on the west. Annual average temperature is 34.3^0C (maximum) and 12.7^0C (minimum); annual rainfall is 2551 mm. The main rivers are Meghna, Gumti and Dakatia. Comilla (Town) stands on the bank of the Gumti River. It consists of 18 wards, 19 union parishads, 452 mouzas and 458 villages. It has an area of 11.47 sq km and a population of 168378: males, 52.56%; females, 47.44%. Literacy rate among the town people is 60.3%. In the suburb, there exists the Commonwealth War Cemetery Memorials, Muktajuddha Museum at Mainamati Cantonment and Bangladesh academy for rural development, Mainamati Museum, Comilla Cadet College at Courtbari. Comilla Town is blessed with the memories of the national poet, KaziNazrul Islam. Nazrul Islam married twice in his life, one at Daulatpur of Muradnagarupazila of the district and the other at Comilla Town. Those places have been marked with memorial plates. Poet Rabindranath Tagore visited Comilla twice. Ustad Muhammad Hussain, FazleNizami and Kulendu Das have enriched the cultural heritage of the town. UstadAyet Ali Khan established a musical institute here. The Comilla region was once under ancient Samatat and was joined with Tripura State. This district came under the reign of the kings of the Harikela in the ninth century AD. LalmaiMainamati was ruled by Deva dynasty (eighth century AD) and Chandra dynasty (during tenth and mid eleventh century AD). It came under the rule of East India Company in 1765. This district was established as Tripura District in 1790. It was renamed Comilla in 1960. Chandpur and Brahmanbaria subdivisions of this district were transformed into districts in 1984. Comilla District has 5 municipalities, 54 wards, 148 mahallas, 12 upazilas, 1 Thana, 180 union parishads, 2704 mouzas and 3624 villages. The upazilas are comillasadar, barura, chandina, daudkandi, laksam, brahmanpara, burichang, chauddagram, debidwar, homnA, muradnagar and nangalkot; the municipalities

are ComillaSadar, Barura, Chandina, Daudkandi and Laksham. The study village is densely populated, the people are very happy and has harmony atmosphere like many other parts of Bangladesh. The Muslims and the Hindus are living there. The main occupation of the villagers is rendering of service. Other occupations of the villagers are agriculture, trade and day labor and rickshaw-puller. Most of the people of this village have are primary and secondary education.

Adult children are considered to be the main source of security and economic support to their parents, particularly in the time of disaster, sickness and old age (Cain, 1986). As an Asian country, Bangladesh has a long cultural and religious tradition of looking after the elderly and it is expected that families and communities will care for their own elderly members. But rapid socio-economic and demographic transitions, mass poverty, changing social and religious values, influence of western culture and other factors, have broken down the traditional extended family and community care system. Most of the people in Bangladesh suffer from some basic human problems, such as poor financial support, senile diseases and absence of proper health and medicine facilities, exclusion and negligence, deprivation and socio-economic insecurity (Rhaman, 2000). Aging is one of the emerging problems in Bangladesh. This problem has been gradually increasing with its far reaching consequences. A clear indication of increasing Bangladesh demographic aging process has been found in the works of Nath and Nazrul (2009) and Islam and Nath (2010). The present study is done to gather overall information on socio-economic and family planning of the senior citizens in Bangladesh. This is motivated by the recognition that the best approach to enhance the aged people's welfare in Bangladesh is to increase their self-reliance and to provide them proper health care facilities so that they can contribute to their family as well as their society. Specifically, it tries to investigate the determinants that influence the socio-economic specially job status of the elderly people in Bangladesh.

Family planning refers to the use of modern contraception and other methods of birth control to regulate the number, timing, and spacing of human births. It allows parents, particularly mothers, to plan their lives without being overly subject to sexual and social imperatives. However, family planning is not seen by all as a humane or necessary intervention. It is an arena of contestation within broader social and political conflicts involving religious and cultural injunctions, patriarchal subordination of women, social-class formation, and global political and economic relations. Attempt to control human reproduction is not entirely a modern phenomenon. Throughout history, human beings have engaged in both pro-and antinatalist practices directed at enhancing social welfare. In many foraging and agricultural societies a variety of methods such as prolonged breast-feeding were used to space births and maintain an equilibrium between resources and population size. But in hierarchical societies, population regulation practices did not bring equivalent or beneficial results to everyone. Anthropologists Marvin Harris and Eric Ross have shown that "As power differentials increase, the upper and lower strata may, in fact, develop different or even antagonistic systems of population regulation" (p. 19). Being uniquely endowed with the capacity for reproduction, women of course have borne the costs of pregnancy, birth, and lactation, as well as abortion and other stressful methods of reproductive regulation. Social-class dominance over reproduction often takes place through the control of lower-class women by upper-class men. The particular forms these controls take vary across historical periods and cultures. In feudal agricultural and "plantation economies" experiencing labor shortages and short life expectancies, for example, there has been great pressure on women to bear as many children as possible (Phillips et al., 1996). In the modern era of industrial capitalist development, conservative fundamentalist groups have tended to oppose abortion and reproductive choice for women on grounds of religion and tradition. They believe that abortion and contraception are inimical to the biological role of women as mothers and to the maintenance of male-dominant familial and community arrangements. In both the industrialized north and the poor countries of the south, religious fundamentalists oppose abortion and the expansion of reproductive choices for women, and sometimes they do so violently, as in the attacks in the United States against clinics and doctors providing legal abortions. The rapid spread of evangelical Christianity and militant Islam around the world further aggravate the situation (Hugo, 1991). Partly as a result of religious fundamentalist opposition, in the early twenty-first century abortion remains illegal in many countries. It is estimated that worldwide approximately 200,000 women die annually due to complications from illegal abortions. The actual figures may be higher, since only about half the countries in the world report maternal mortality statistics. Indeed, the unchallenged position of the Vatican against artificial conception and the U.S. government policy against funding for international abortions has led some to believe that illegal abortions and maternal mortality could further increase. Not only does the Bush administration refuse money for abortions, but it also prohibits medical professionals in international organizations such as International Planned Parenthood from talking about abortion if they receive U.S. government support. In the context of both the conservative religious backlash and the problems attributed to global population expansion, family planning seems an enlightened and progressive endeavor. Yet, the movement to provide modern contraception has been fraught with gender, race, and class inequalities and health and ethical problems from the outset. Efforts to reform and

democratize international family planning must necessarily grapple with these concerns (Bandarage, 2004).

Origin and evolution of family planning

The idea of modern population control is attributed to Thomas Malthus (1766–1834), who in 1798 articulated his doctrine attributing virtually all major social and environmental problems to population expansion associated with the industrial revolution. However, as a clergyman turned economist, Malthus was opposed to artificial methods of fertility control. He advocated abstinence and letting nature take its toll and allowing the poor to die. In contrast, birth control emerged as a radical social movement led by socialists and feminists in the early twentieth century in the United States. The anarchist Emma Goldman (1869–1940) promoted birth control not only as a woman's right and worker's right, but also as a means to sexual freedom outside of conventional marriage. But soon birth control became increasingly medicalized and associated with science and corporate control as well as with the control of reproduction within marriage and conventional family life. As the radicals lost their leadership of the birth control movement to professional experts, mostly male doctors, by the 1920s birth control, which refers to voluntary and individual choice in control of reproduction, became aligned with population control, that is, a political movement by dominant groups to control the reproduction of socially subordinate groups (Huq and Amin, 2001). During the influx of new immigrants in the 1920s and 1930s and during the depression, when the ranks of the unemployed were swelling, eugenicist (hereditary improvement) ideology and programs for immigration control and social engineering gained much ground in the United States (Adewale, 2005). Even the birth-control pioneer Margaret Sanger (1879–1966) and suffragists such as Julia Ward Howe (1819–1910) and Ida Husted Harper (1851–1931) surrendered to ruling-class interests and eugenics, calling for birth control among the poor, blacks, and immigrants as a means of counteracting the declining birth rates of native-born whites. Influenced by eugenicist thinking, twenty-six states in the United States passed compulsory sterilization laws, and thousands of persons—mostly poor and black—deemed "unfit" were prevented from reproducing. By the 1940s, eugenicist and birth-control interests in the United States were so thoroughly intertwined that they became virtually indistinguishable. In the post–World War II era, compulsory sterilization became widespread in the so-called Third World where the birth rates have been higher than in the industrialized countries (in 1995, fertility per woman was 1.9 in the more developed regions and 3.6 in the less developed regions) (Momodu, 2002). In the late twentieth century, the fear of demographic imbalance again seemed to be producing differential family-planning policies for the global north and the south. This was evident in corporate-scientific development of stronger contraceptives largely for poor women of color in the south and new reproductive technologies for fertility enhancement largely for white upper-class women in the north (Spink et al., 2001). Some insurance companies in the United States continue to refuse to cover conception in the early twenty-first century. Countries concerned with population "implosion" in the north such as Sweden, France, and Japan are pursuing pronatalist policies encouraging women to have more children while at the same time pursuing antinatalist policies encouraging women in the south to have fewer children (Balk, 1997). The main view of the project work is to represent the actual condition of remarkable features of the villagers in a certain rural area of Bangladesh through which our planners will be able to have some ideas about the socio-economic and demographic infrastructure of the villagers. This is to promote proper future action to meet the millennium goal taken by the Government within the year 2020 and thereby, to contribute a lot to the overall development of the country (Abedin, 1996)

The main focus of this study was to investigate the socio-economic and demographic characteristics of some villages in a particular area of Bangladesh. Since Bangladesh is a rural based country, it is essential to study a village in particular to conclude on the socio economic characteristics and family planning condition of Bangladesh as a whole. To have a better understanding, the objectives were designed to know the nature of households residing in the study area, standard of literacy among the villagers of this area, income and expenditure pattern of the households, to highlight family planning behavior of the study population and to guess the main occupation of householders.

METHODOLOGY USED IN THE STUDY

The present study was conducted to find out the socio-economic and family planning aspects of the people of some villages in a particular area such as Comilla District of Bangladesh. There are 19 union parishads and 458 villages in Comilla District. Initially the study was planned to cover all the rural families of villages. This study was done by primary data. The data were collected from households, which were selected by two-stage random sampling. At the first stage, five unions were selected randomly and from among these, twenty percent villages were selected at random. The number of selected villages was twenty. All the households, numbering 500, from the selected villages were covered. General information relating to the socio-economic situation and family planning was collected from the households, and information on family planning practice was obtained from married couples of childbearing age that is with the wife aged below 50 years. Data were collected through a questionnaire designed for the purpose and by face-to-face conversations with the respondents. The questionnaire was distributed among the randomly selected households. They were given short time to fill in the

questionnaire after a short description of the purpose of the study. In all 500 people were interviewed. Thus, the present analysis is based on the information collected from 500 observations and concerns the socio-economic condition and their family planning behavior. Demographic and socio economic factors such as place of residence, age, religion, education, occupation; family size, income, expenditure, pattern of house, types of latrine, insurance policy, treatment, marital status, number of children in a family were considered independent and dependent variables for bivariate and multivariate analysis. After collecting data, Information was arranged in different tables and analyzed using SPSS software (version 16.0; SPSS Inc., Chizago, IL). Bivariate analyses were performed based on cross tabulations using Chi-square tests. Correlation test and t test were also performed to find out appropriate results. Finally, multivariate analyses were conducted in terms of binary logistic regression analysis (Fox, 1984). Here, 5 and 1% level of significance were considered for the test.

Chi-square test

A chi-square test is a statistical test commonly used for testing independence and goodness of fit. Testing independence determines whether two or more observations across two populations are dependent on each other (that is, whether one variable helps to estimate the other). Testing for goodness of fit determines if an observed frequency distribution matches a theoretical frequency distribution. In both cases the equation to calculate the chi-square statistic is,

$$X^2 = \sum_{i=1}^{n} \frac{(O_i - E_i)^2}{E_i}$$

The effect of Yates' correction is to prevent overestimation of statistical significance when at least one cell of the table has an expected count smaller than 5. The following is Yates' corrected version of Pearson's chi-squared statistic:

$$\chi^2_{\text{Yates}} = \sum_{i=1}^{N} \frac{(|O_i - E_i| - 0.5)^2}{E_i}$$

Correlation test and t test

Correlation coefficients are used in statistics to measure how strong a relationship is between two variables. The quantity r, called the linear correlation coefficient, measures the strength and the direction of a linear relationship between two variables.

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2}\sqrt{n(\sum y^2) - (\sum y)^2}}$$

Where, n is the number of pairs of data. The simplest formula for computing the appropriate t value to test significance of a correlation coefficient employs the t distribution:

$$t = \frac{r\sqrt{(n-2)}}{\sqrt{(1-r^2)}}$$ With (n-2) degrees of freedom;

where, r is the correlation coefficient.
The method for comparing two sample means is very similar. The only two differences are the equation used to compute the *t*-statistic, and the degrees of freedom for choosing the tabulate *t*-value. The formula is given by unequal sample size and equal variances:

$$t = \frac{\overline{x_1} - \overline{x_2}}{S(1/n_1 + 1/n_2)^{1/2}}$$ With (n_1+n_2-2) d.f

$$S_1^2 = \frac{1}{(n_1 - 1)} \sum f_{1i}(x_{1i} - \overline{x_1})^2$$

$$S_2^2 = \frac{1}{(n_2 - 1)} \sum f_{2i}(x_{2i} - \overline{x_{21}})^2 \quad S^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{(n_1 + n_2 - 2)}$$

Where, $\overline{x_1}$ = sample mean of the 1st sample, $\overline{x_1}$ = sample mean of the 2nd sample, *s* is the sample standard deviation of the sample and n_1, n_2 is the 1st and 2nd sample size.

Linear Logistic regression model

Linear Logistic regression model is useful to find the best fitting and most parsimonious, yet biologically reasonable model to describe the relationship between an outcome (dependent or response variable) and a set of independent (predictor or explanatory) variables. This is a multivariate technique for estimating the probability that an event occur. In a linear logistic regression model, dependent variable is a dichotomous one. The independent variable may be either dummy or categorical.
For a single variable, the logistic regression model is of the form

$$\text{Prop (event)} = \frac{1}{1 + e^{-(\beta_0 + \beta_1 x)}}$$

Where β_0 and β_1 are the regression co-efficient estimated from the data, x is the independent variable and e the base of natural logarithm.
For more than one independent variable, the model assumes the form

$$\text{Prop (event)} = \frac{1}{1 + e^{-z}}$$

Where, $Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots\ldots + \beta_P X_P$

The model is to be written in terms of the log odds of event occurring. This is called logit;

$$\ln\left(\frac{prob(event)}{prob(noevent)}\right) = \beta_0 + \beta_1 X_1 + \ldots\ldots\ldots + \beta_P X_P$$

$$\frac{prob(event)}{prob(noevent)} = e^{\beta_0}\, e^{\beta_1 X_1} \ldots\ldots\ldots e^{\beta_p X_P}$$

Then e raised to the power β_i is the factor by which the odds changes when the i'th independent variable increases by one-unit. If β_i is positive, this factor will be greater than 1, which means that the odds are increased. If β_i is negative, this will be less than 1 which means that the odds are decreased. When is 0, the factor equals and odds remains unchanged.

RESULTS AND DISCUSSION

Simple frequency tables are mostly used here to identify the nature and pattern of various Socio- economic and demographic characteristics along with background characteristics of the study area. In this section some tables and graphs are made from the different questions of the questionnaire from where we can get a distinct picture of socioeconomic and demographic structure of the rural people.

From Table 1, we see that most of the head of the households in the study area lies between the age group 31-60 years.

Of them 41-50 years aged are highest (31.0 %) and 70+ is the lowest (5.0%), which means that the influence of this aged people is dominant on this area. The reason behind this lies on the socio economic structure of our country.

From Figure 1, it is found that 83% households are Muslim and 14% are Hindu. Except Muslim and Hindu there is 3% of other religious community in the area under study.

From Table 2, it is evident that the largest numbers of respondents are those with secondary education (36.2%) and the least number of respondents have bachelor and higher degrees (5.6%).

Illiterate respondents are 6.2%. So, the literacy rate of the study area is (100-6.2=93.8%) which is much close to our national literacy rate.

From Figure 2, it is found that 84.4% head of the households belong to the single family and 15.6% belongs to the joint family. In the study it is evident that the tendency of single family is increasing day by day in the area under study like Bangladesh.

From Table 3, it is found that maximum number of respondents is taking agriculture (63.4%) as a profession and 22.4% of the respondents choose business as a profession which is second. So we can say
that, the agriculture sector as a profession is first choice in rural area like Bangladesh.

From Figure 3, we see that 28.4% head of the households have at most Below 15000 monthly income and 2.2% have Tk.45000-Tk.55000 monthly income. If we consider monthly income of households below 15000 as lower class, from Tk.15000-Tk.35000 as middle class and from Tk35000-Tk55000 as upper class, then the respective percentage will be 28.4, 65.2 and 6.4%. Thus it is evident that the standard of income of the households is middle class.

From Table 4, we see that 36.2% households have at most Tk.7000 monthly expenditure and 1.6% have above Tk.22000 monthly expenditure.

If we consider the households having expenditure (monthly) at most Tk.7000 as lower class, from Tk.7000-Tk.17000as middle class and above Tk.170000 as upper class, then the respective percentage will be 36.2,

Table 1. Percentage distribution of the respondents according to their age group.

Age interval of the respondent (in year)	F	%
Below-30	57	11.4
31-40	99	19.8
41-50	155	31.0
51-60	101	20.2
61-70	63	12.6
70+	25	5.0
Total	500	100.0

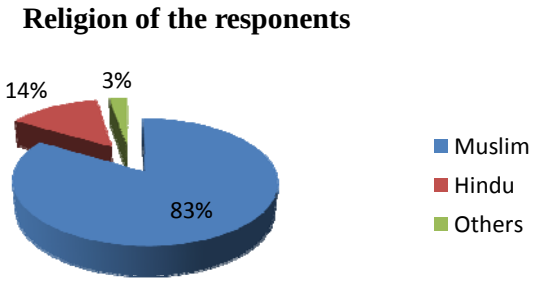

Figure 1. Percentage distribution of the respondents according to their major religious.

Table 2. Percentage distribution of the respondents according to their educational qualification.

Educational status	Frequency	%
Illiterate	31	6.2
Primary	152	30.4
Secondary	181	36.2
Higher secondary	108	21.6
Bachelor and above	28	5.6
Total	500	100.0

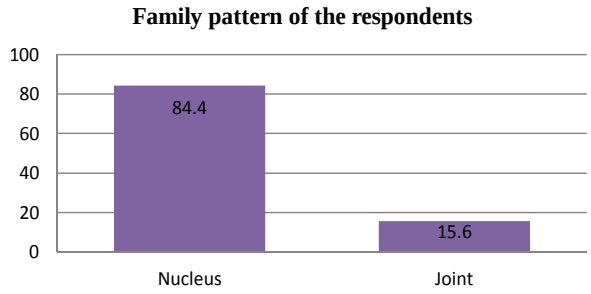

Figure 2. Percentage distribution of the respondents according to their family pattern.

Table 3. Percentage distribution of the respondents according to their professions.

Profession of the respondents	Frequency	Percentage (%)
Agriculture	317	63.4
Govt. service	13	2.6
Business	112	22.4
Private service	47	9.4
Others	11	2.2
Total	**500**	**100.0**

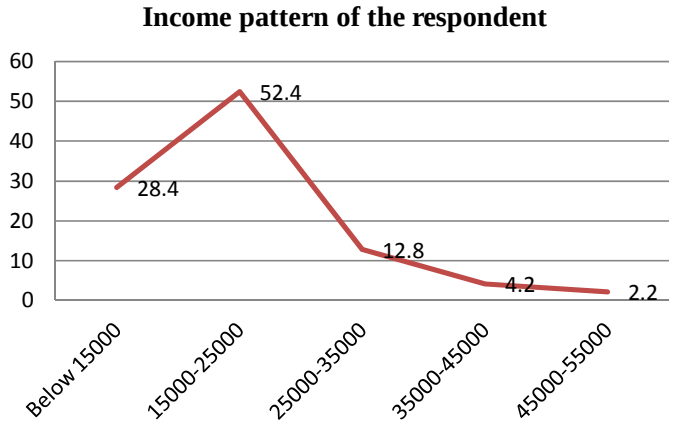

Figure 3. Percentage distribution of the respondents having monthly income.

Table 4. Percentage distribution of the respondents having monthly expenditure.

Expenditure level	Frequency	%
Below-7000	181	36.2
7000-12000	223	44.6
12000-17000	74	14.8
17000-22000	14	2.8
22000-27000	8	1.6
Total	**500**	**100.0**

Table 5. Percentage distribution of the respondents having the pattern of dwelling houses.

Pattern of house	Frequency	Percentage
Building	29	5.8
Semi-building	137	27.4
Tin Shade	298	59.6
Straw Hut	36	7.2
Total	500	100.0

59.4 and 4.4%. It is clear that the standard of expenditure of the households is middle class.

From Table 5, it is found that the maximum 59.6% households have tin-shaded dwelling house and buildings are so few (5.8%).

Semi building house are 27.4%. It is evident that the dwelling-standard of the households in the area under study is middle-class and dominated by traditional system (i.e. Tin shade) of life-style as generally formed among most villagers.

From Table 6, it is observed that the maximum (93.6%) households use PHE type latrine and very few use open type (6.4%).

It is a picture of healthy social environment. It is the only reason that the sanitation program was driven in the area in 2004.

Facility of drinking water supply

In the interview, all the 500households said they use tube-

Table 6. Percentage distribution of the respondents using different types of latrine.

Types of Latrine	Frequency	%
PHE Type	468	93.6
Open Toilet	32	6.4
Total	500	100.0

well for drinking purpose. Although, every household has no personal tube-well; they use tube-well water which they usually carry from other people's personal or common tube-well. Hence, it is evident that the water which they use for drinking purpose in the area is healthy. From the above two aspects, it can be safely concluded that health facility awareness is very much encouraging among the study population.

From Figure 4, it is found that the highest problem of the households is economic (65.4%). The second is medical treatment (19.6%). There is 3.0% residential, 12.0% educational and no electricity problem in the village. Proper medical treatment and economic problem solution steps should be taken to save the study area from the above problem and should be special care given to improve education.

From Table 7, it is found that 72.2% households have insurance or policy and 27.8% households have no anyinsurance or policy.

This result shows that the tendency of savings of the households is high in the study area.

From Table 8 it is found that 79.4% households take Alophethic treatment and 20.6% households take Homeopathic and other (Kabiraji and Fakirali) treatment. So we can say that Homeopathic and other (Kabiraji and Fakirali) treatments are not popular to the people in the area under study. This indicates modern health facilities are more satisfactory.

From Figure 5 we see that, most of the heads of the households are married (90%) and only 10% head of the households are unmarried; which shows that the head of the households must be married, making it different from the city.

Here, it is observed that, the mean age of the head of the households being married is 24 which is very close to our national mean age (23) of first marriage (Table 9).

From Table 10 we see that, the mean age of first marriage of the respondent (Female) is 18.5 which is very close to our national mean age (18) of first marriage.

From Table 11 it is found that the maximum heads of the households have 3 children (38.6%) and 49.0% have 1 and 2 children Which implies that most of the households have standard family but there 12.4% households have four & more children which indicate that, they are not conscious about their family planning.

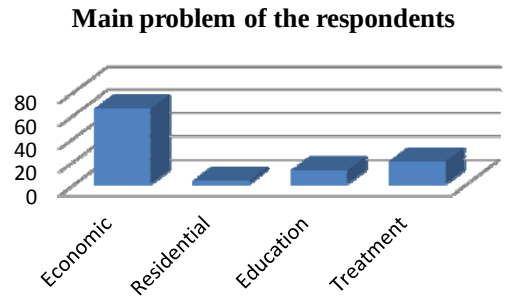

Figure 4. Percentage distribution of the respondents according to their main problems.

Table 7. Percentage distribution of the respondents according to their propensity to savings.

Do you have any insurance or policy?	Frequency	%
Yes	361	72.2
No	139	27.8
Total	500	100.0

Table 8. Percentage distribution of the respondents according to their types of treatment.

Treatment system	Frequency	%
Alophethic	397	79.4
Homeophethic	91	18.2
Others	12	2.4
Total	500	100

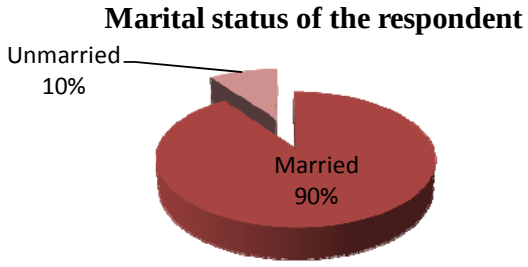

Figure 5. Percentage distribution of the respondents according to their marital status

From Figure 6 we observed that 75.6% households adopted family planning procedures and 24.4% do not practice it. Hence it is evident that the attraction of adopting family planning procedures is growing day by day to the households in the area.

Table 9. The mean age of first marriage of the respondents (Male).

No of respondents	Minimum Age	Maximum Age	Mean Age
500	18	30	24

Table 10. The mean age of first marriage of the respondents (Female).

No of respondents	Minimum Age	Maximum Age	Mean Age
500	15	22	18.5

Table 11. Percentage distribution of the respondents according to their number of children.

No of children	No of head of the households	Percentage (%)
One	84	16.8
Two	161	32.2
Three	193	38.6
Four and above	62	12.4
Total	500	100.0

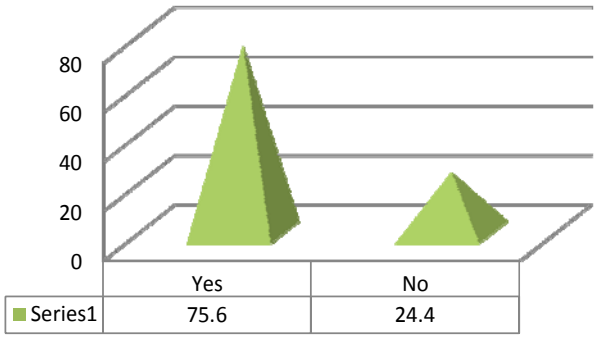

Figure 6. Percentage distribution of the respondents adopting family planning procedures.

Now we are to test,

H_o: There is no association between educational qualification and profession of the respondents.
H_1: There is a significance association between educational qualification and profession of the respondents.

Here, p value is less than 0.01 (at 1% level of significance) with 16 d.f, so we may reject the null hypothesis and accept the alternative hypothesis. i.e., there is high association between education and profession of the respondents (Tables 12 and 13).
Let us consider the following hypotheses:

Ho: There is no association between income and education of the respondents.
HI: There is association between Income and education of the respondents.

Since, p value is .000, so it is highly significant .i.e. there is association between education and family income of the respondents (Tables 14 and 15).
Now we are to test,

H_o: There is no association between education and family planning procedure.
H_1: There is a significance association between education and family planning procedure.

Here p value is less than 0.01 (at 1% level of significance) with 1 d.f, so we may reject the null hypothesis. Hence we conclude that, there is high association between education and family planning method adoption of the respondents (Tables 16 and 17).

The correlation co-efficient between income and expenditure of the respondents is r = 0.739 (By using SPSS).

Ho: There is no correlation between income and expenditure.
H1: There is correlation between income and expenditure

Table 12. Cross tabulation and chi Square test for association between education and Profession.

Educational status	Profession					
	Agriculture	Govt. Service	Business	Private job	Others	Total
Illiterate	27	0	3	0	1	31
Primary	127	0	15	7	3	152
Secondary	110	1	50	15	5	181
Higher secondary	52	4	31	19	2	108
Bachelor & Above	1	8	13	6	0	28
Total	317	13	112	47	11	500

Table 13. Chi Square test.

Chi Square (χ^2)	d.f	p-value
4.43	16	0.004

Table 14. Cross tabulation and chi Square test for association between education and Income.

Income group	Educational status		Total
	Illiterate	Literate	
Lower class(below 15000)	21	121	142
Middle Class 15000-35000	8	318	326
Upper class(35000-55000)	2	30	32
Total	31	469	500

Table 15. Chi Square test.

Chi Square (χ^2)	d.f	p-value
9.549	2	.000

Table 16. Cross tabulation and chi Square test between education and family planning adoption of the respondents.

Family planning procedure	Educational status		Total
	Illiterate	Literate	
Adopter	10	368	378
No adopter	21	101	122
Total	31	469	500

Since, p value < α (at 5% level of significance) with 3d.f, we reject the null hypothesis, i.e., there is correlation between income and expenditure of the respondents (Tables 18 and 19).

Table 17. Chi Square test.

Chi Square (χ^2)	d.f	p-value
8.91	1	.001

We consider the following hypotheses,

Ho: μ = μ_1(μ_1= Population mean income of literate person)
H1: $\mu_1 \neq \mu_2$ (μ_2= Population mean income of illiterate person)

From this result we clearly say that it is highly significant with 5d.f at 1% level of significance (P = 0.000). That means, income of literate and illiterate persons is not equal (Tables 20 and 21).

From Table 22, it is found that the respondents who have primary education are .611 times less likely than the illiterate respondents to have more than 3 children. The respondents with secondary level of education are .708 times less likely, the respondents with higher secondary level of education are .844 times less likely, the respondents with Bachelor and Above level of education are .966 times less likely than the illiterate respondents to have more than 3 children.

From Table 23, it is observed that the monthly income of Tk45000-Tk55000 for the respondents who are primary educated is 0.375 times more than that of the illiterate respondents. Similarly, the monthly income of the respondents who have secondary education is 0.842 times more than that of the illiterate respondents; that of higher secondary education is 1.256 times more than that of the illiterate respondents and that of the respondents with Bachelor and above education is 1.661 times more than that of the illiterate respondents.

From Table 24, it is observed that the respondents who use family planning methods are 0.985 times less likely to have more than 3 children than those who do not use family planning methods.

From Table 25, it is found that the respondents who have primary education are 0.757 times more likely than the illiterate respondents to marry after age 20. The

Table 18. Cross tabulation between income and expenditure of the respondent.

Income	Expenditure					
	Below 7000	7000-12000	12000-17000	17000-22000	22000-27000	Total
Below 15000	74	67	1	0	0	142
15000-25000	101	137	23	1	0	262
25000-35000	6	17	38	2	1	64
35000-45000	0	2	11	5	3	21
45000-55000	0	0	1	6	4	11
Total	181	223	74	14	8	500

Table 19. The correlation co-efficient.

t- test	d.f	p-value
11.33	3	.013

Table 20. Test for equality of income of literate and illiterate persons.

Monthly income Level (in Tk.)	Mid value	No of households		Total
		Literate (f_{1i})	Illiterate (f_{2i})	
Below-15000	10000	128	14	142
15000-25000	20000	253	9	262
25000-35000	30000	59	5	64
35000-45000	40000	19	2	21
45000-55000	50000	10	1	11
Total		469	31	500

Table 21. The correlation co-efficient.

t- test	d.f	p-value
2.21	5	.000

Table 22. Factors influencing the number of children of the respondents.

Education	B	Standard Error	Sig.	Odds Ratio [Exp(β)]
Illiterate (RC)	-	-	0.043	1.00
Primary	.709	.807	0.001	.389
Secondary	.118	.798	0.000	.292
Higher secondary	-1.034	.968	0.121	.156
Bachelor and Above	.470	.851	0.042	.034

N.B: Here is coded, more than three children (Four and above) as 1 and Others (One, Two and Three children) as 0.

respondents with secondary education are 0.998 times more likely than the illiterate respondents to marry after age 20. The respondents with higher secondary level of education are 1.448 times more likely than the illiterate respondents to marry after age 20. The respondents with Bachelor and above level of education are 2.864 times

Table 23. Factors influencing the income of the respondents.

Educational	B	Standard Error	Sig.	Odds Ratio[Exp(β)]
Illiterate (RC)	-	-	0.097	1.00
Primary	.629	.438	0.623	0.375
Secondary	.213	.113	0.000	0.842
Higher secondary	.781	.457	0.001	1.256
Bachelor & Above	-.579	.341	0.721	1.661

N.B: Here is coded the monthly income Tk45000-Tk55000 as 1 and other income as 0.

Table 24. Factors influencing the total number of children of respondents.

Ever use family planning method?	B	Standard Error	Sig.	Odds Ratio [Exp(β)]
No (RC)	-	-	0.001	1.00
Yes	-4.179	1.104	0.021	0.015

N.B: More than three children (Four and above) coded as 1 and Others (One, Two and Three children) as 0.

Table 25. Factors influencing the age at first marriage of the respondents (both male and female).

Education	B	Standard Error	Sig.	Exp (B)
Illiterate (RC)			.718	1.00
Primary	.769	.710	.001	0.757
Secondary	.981	.695	.000	0.998
Higher secondary	2.099	1.662	.304	1.448
Bachelor & Above	1.231	1.012	.121	2.864
Constant	-1.897	.619	.002	0.350

N.B: Consider marriage after age 20 as coded 1 and others age as 0.

Table 26. Factors influencing the savings of the respondents.

Family status	B	Standard Error	Sig.	Odds Ratio [Exp(β)]
Lower class (RC) (Below-15000)	-	-	.195	1.00
Middle class (15000-35000)	.629	.838	.020	1.875
Upper class (35000+)	.497	.568	.001	2.213

N.B: Consider Lower class to save money as coded 1 and others to save money coded as 0.

more likely than the illiterate respondents to marry after age 20.

From Table 26, it is found that the respondents who are in middle class are 1.875 times more likely than the respondents who are in lower class to save money. The respondents who are in upper class are 2.213 times more likely than the respondents who are in lower class to save money.

CONCLUSION

The findings of the present study have clear policy implications. This study is an attempt to obtain a better understanding about socio-economic and family planning aspects of rural people in Bangladesh. Various socio-economic and demographic characteristics that are related to the rural people have been studied. From this study, it is found that profession, family planning procedure, monthly income are statistically significant with their educational status. For the betterment of the socio-economic status of the people, some initiatives should be started. Firstly, to ensure the financial solvency of the people, proper regulations should be developed to encourage their offspring so that they could help their parents much more. Employment opportunity should be made for the people according to their physical and mental fitness, educational qualification, needs and preferences. People mostly suffer from some physical illness and they need comprehensive medical care services. Poor people should be involved in the development and implementation of programs and policies according to their minimum needs.

The achievement of the desired level of fertility may be best judged by the extent to which family planning has found its place as a way of life in society. Of course, family planning involves both a decisions about the desired family size and the effective limitation of fertility once that size has been reached. In these matters, social factors play a significant role. Among the social factors, education provides opportunities to a person to be well placed in society. This study throws some light on the acceptance of family planning by couples who are educated and well -placed in society. The respondents who use family planning methods are 0.985 times less likely to have more than 3 children than those who do not use family planning methods. It concludes that every couple in the rural area is aware of family planning, but very few practice it. Most adopter couples were socially well placed. The rate of adoption was higher among couples from higher (secondary or higher) educated females. Thus, upward social mobility in respect of education of both parents and offspring was significant and family planning practice was significantly positively correlated with it. The acceptance of family planning among illiterate respondents also increased with an increase in the educational levels.

Education provides opportunities to be well placed in the society, as educated families tend to be engaged in more socially respected occupations or professions. The respondents with Bachelor and above level of education are 2.864 times more likely than the illiterate respondents to marry after age 20. Thus, with a change in the educational levels of the parents, the occupational pattern of the offspring also changes. It was observed that overtime; most of the families have made substantial changes in society in respect of their profession. This upward social mobility in respect of occupations had a significant positive effect upon family planning adoptions which was observed to be significantly higher among couples who were engaged in service or business as opposed to those engaged in agriculture or other occupations. Also, upward social mobility of the women makes them more incline to adopt family planning. Finally, we, the people and the government should be aware about the danger of all kinds of socio-economic and demographic conditions of the rural people in Bangladesh.

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Conflict of Interests

The author has not declared any conflict of interests.

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