FACTORS RELATED TO THE ACCEPTANCE OF FAMILY PLANNING METHODS AMONG THE MARRIED WOMEN OF REPRODUCTIVE AGE IN METHAPUKUR UPAZILA, RANGPUR DISTRICT, BANGLADESH

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ABSTRACT

This cross-sectional study was conducted on factors related to the acceptance of family planning methods among the married women of reproductive age in Methapuker Upazila in the Rangpur district, Bangladesh. The aims were to identify socio-demographic characteristics, knowledge, attitude, availability and accessibility as factors related to the acceptance of family planning, and explore the association between these factors and acceptance of family planning. A total of 420 married women of reproductive age were interviewed using a structured questionnaire from four randomly selected clusters during January 2006. Results were presented in frequency and percentage, and chi-square test was applied to show the association between independent and dependent variables.

The results of the study revealed that the prevalence of family planning methods was 56.31%. The majority of the acceptors stated, “Don’t want child” as a reason for using family planning and oral pills were the most popular method. More than half of the respondents had fair knowledge, and had a positive attitude toward family planning. Most of the respondents, who received services from service centers, resided less than 3 km from the service center. The time for receiving service was less than 1 hour in a majority of the cases. The findings also showed that there was a significant relationship between acceptance of family planning and age of married women, duration of marriage, number of living children, desire for additional children, attitude toward family planning, place of service and waiting time (p-value <0.05) . This study indicates that motivation, counseling, effective communication and appropriate strategy is essential for improving family planning acceptance in rural, Bangladesh.

KEY WORDS: FAMILY PLANNING METHODS/REPRODUCTIVE AGE/
ACCEPTANCE/RURAL AREA

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CHAPTER 1
INTRODUCTION

1.1 Rational and Justification

1.1.1 Magnitude of the problem

The population explosion is the major concern in present time. The alarming increase in the world population poses certain crucial economic, political and social problems in all most all spheres of life and to all sectors of human race. Most developing countries realize the implication of rapid population growth on the socio-economic status and welfare of the people.

Global population has quadrupled this century, growing faster than at any time in previous history. At the beginning of the 19th century, the world's population was approximately 1.5 billion. It reached 2 billion in 1927; 3 billion in 1960; 4 billion in 1974; 5 billion in 1987 and crossed 6 billion in 1999 (1).

The increase of population is more than one million every three months and 250,000 every day. If the current rate of growth is not controlled through appropriate and effective initiatives, the population of the world will rapidly increase to 8.5 billion in 2025, and will cross the ten billion mark by the year 2050(2). Rapid population growth not only threatens the future welfare of the society as a whole, but also currently impedes the economic development of the world's poorest nations (3). Fertility rate in the developing countries remains high, not only as a result of irrational behavior on the part of the people living in these countries, but also as a result of their rational response to high infant mortality rates. Fertility rate will remain high unless the education, health and social environment in which these families live is improved. Economic development and population growth are intimately related. Development reduces the death rate resulting in increase population growth, which in tern reduces per capital income. In develop nations, economic development occurred along with the development of new technologies and the reduction in mortality; therefore,

population growth created an effective demand which further stimulated economic development. In developing countries the situation is different. Reduced mortality, the introduction of labor saving technology and the consumption aspirations derived from contact with capitalistic countries precede to economic development. Given the high complex nature of the population problem, efforts must be made on many fronts including:

a) Family Planning Promotion;
b) Improvement in education, health, and social conditions for high fertility populations;
c) Enhancement of workers skills;
d) Rapid progress in technology;
e) Greater capital accumulation and
f) Economic organization (4).

Rapid population growth has multiple and complex effects on economic development. At the household level, investments per child in education and health are reduced when households have many children, that is, when fertility rates are high. At the societal level, rapid rural population growth in particular puts enormous stress on the physical environment (e.g., deforestation, as forests are cut for firewood and new farm land) and on food productivity as land-labor ratios in agriculture decline. (5).

Family planning is not only controlling the growth of population, but also reducing the mortality rate of pregnant women and their babies. Every year almost 515,000 women die from problems linked to pregnancy and childbirth, and approximately 30 more develop serious and disabling problems. Family planning could prevent many of these deaths and much of this disability. For example, delaying a first pregnancy until a girl is at least 18 years of age. This will help to ensure a safer pregnancy and delivery, and it will reduce the risk of her baby being born underweight. This is especially important in countries where early marriage is the custom and the young women need special help to delay pregnancy. Childbirth is

more likely to be difficult and dangerous for an adolescent than for an adult. Babies born to very young mothers are much more likely to die in the first year of life. The younger the mother, the greater the risk to her and her baby. Young women need special help to delay pregnancy. Young women and their families should be given information about the risks of early pregnancy and how to avoid them (6). The benefit of contraceptives is certainly much more than its cost. An estimate showed that at a cost of about $7.1 billion a year, modern contraceptive use currently prevents annually:

- 187 million unintended pregnancies;
- 60 million unplanned births;
- 105 million induced abortions;
- 2.7 million infant deaths;
- 215,000 pregnancy related-deaths (including 79,000 from unsafe abortions);
- 685,000 children losing their mothers due to pregnancy-related deaths (7).

So, it will be very much worthy to investments in reproductive health, including family planning and access to contraceptives, are crucial accompaniments of investments in disease control. The combination of disease control and reproductive health is likely to translate into reduced fertility, greater investments in health and education of each child, and reduced population growth.

1.1.2 The consequences of the problem

Unintended pregnancy is a worldwide problem that affects women, their families and society. Unintended pregnancy is the result of contraceptive failure, non-use of contraceptive services or rape. Another serious consequence of unintended pregnancy is abortion, which may lead to long-term negative health effects including infertility and maternal death (8).

Around 25 percent of maternal deaths in Asia and 30-50 percent of maternal deaths in Africa and Latin America occur as a result of induced abortion (9). In developing countries, the risk of death following complications of unsafe abortion

may be several hundred times higher than that of an abortion performed professionally under safe conditions. Both the incidence of unsafe abortion and resulting mortality appear to be rising among unmarried adolescents in urban areas where abortion is illegal and access to fertility regulation services is inadequate (10).

As per global overview of abortion, there are 50 countries where abortion is either prohibited or permitted only to save the mother's life, 44 countries with strictly defined justifications over and above a threat to the mother's life (e.g. rape or incest), 13 countries that permit abortion for social or socio-medical as well as medical reasons, and other 22 whether abortion is available on request. In Africa and Latin America, strict abortion laws remain the norm; however, several countries in Asia and Eastern Europe have demonstrated a trend toward liberalization of abortion laws. The annual number of abortions worldwide is estimated at 36-53 million; about 25% of all pregnancies are terminated. The abortion rate is actually higher in countries where abortion is illegal (30-60/1000 women in Latin America) than areas where it is available (14/1000 in Western Europe). The rate of abortion is primarily a reflection of the availability, quality of family planning services and sex education in a country. In countries where abortion is legal, the mortality rate is under 1/100,000 procedures. About a quarter to a third of maternal deaths are attributable to complications of illegal abortions (11).

A study on abortion showed that majority of the women availed abortion services from facilities where Menstrual Regulation (MR) was provided. However, a quarter of the abortion procedures was dangerous or inadequate, and the number of women who developed complications was very high (43%). Only 58 of 143 women attended only one provider, while 85 went on to attend a second provider. Of the 85, 37 went on to a third provider and 4 women had to be referred on to the district hospital with serious complications, of whom one died. About three-quarters of the women were not using contraception at the time of getting pregnant. Many of the dangerous abortions were the most expensive to obtain, not least because of the cost of treatment for complications (12).

Effective family planning services can reduce the unintended pregnancy and abortion. A study conducted to find out the role of better family planning services in reducing abortion showed that abortion rates were significantly lower in the area with better family planning services compared with the comparison area. Abortion of unintended pregnancies is similar to both areas, but the higher levels of contraceptive use in the treatment area have led to lower levels of unintended pregnancy and abortion. (13).

Each year 500,000 women die world-wide as a result of complications of pregnancy and birth. Of these, 4,000 deaths occur in developed countries whereas the rest occur in the developing countries1. Offering family planning counseling and services to prevent future unintended high-risk pregnancies and unsafe induced abortions is as crucial as providing the immediate appropriate medical care to prevent these deaths (14).

1.1.3 Situation in Bangladesh

Bangladesh is the most densely populated country in the world with an estimated population of 140 million, and having population density 900 per sq. km (15). According to the Bangladesh Demographic and Health Survey (BDHS- 2004), the total fertility rate of women age 15-49 is 3.0. Bangladeshi women have a pattern of early child bearing. According to the current fertility rates, on average, women will have 22 percent of their births before reaching age 20 and will complete 76 percent of their childbearing before the age of 30. During the first half of the last century the high birth rates and high death rates was mainly responsible for slow increase of population, during this period the population increased by only 45 percent., but in the second half of the century, population growth was rapid, tripling during the period(16). The under-15 population constitutes above 40 percent of population, which is high. This has serious implications for the continuing population growth due to “population momentum” and future demands on Bangladesh’s infrastructure and the labor market (15).

The Bangladesh population policy indicates that the population should stabilize at 210 million in 2060, if replacement level fertility is reached by 2010. This estimate of future population size is reasonably consistent with the World Bank projections in 1994, and the United Nations projections in 1996, both the reports estimated that there will be a population of 218 million by mid- 21st century. However, there is wide disparity between the estimate of the Bangladesh Government and other agencies on the time when the population world stabilizes. The World Bank boldly forecast a final stationary population of 263 million by mid-22nd century (2150), whereas other agencies have not projected beyond the – 21st century. Recently however, the United Nations has received their estimate for 2050 by 25 million (or 11%) to 243 million, apparently on the basis of the decade long fertility plateau (16).

Over population is a burden for a developing country like Bangladesh. Family Planning (FP) efforts in Bangladesh began in the early fifties under voluntary auspices of a group of social and medical workers. Categorical FP programme emerged during Third Five Year Plan of the erstwhile Pakistan Government. A national population policy was initiated in Bangladesh in the immediate post liberation period. Built on the programme experience of about a decade prior to liberation, this policy was oriented, among others toward decelerating population growth with fertility regulation. Organizationally the Family Planning Program in Bangladesh has passed through a number of transformations. Five district and board phases may be identified as:

(a) Private and voluntary clinic-based program with little government support (19953-60);

(b) Family planning services through government health care facilities (1960-65);

(c) Large scale field based government family planning program administered by an autonomous board (1965-75);

(d) Maternal and Child Health (MCH) based multi-sectoral program (1975-80);

(e) Functionally integrated health and family planning program emphasizing MCH, PHC and FP as a package (17).

Though Bangladesh Family Planning Program has made substantial improvement in acceptance of family planning methods, but still the contraceptive prevalence rate is 58.1 (16), which is low in compare to Thailand.

Religion thinks to be a barrier to acceptance of family planning in Muslim countries. The first source of Islamic law, the Koran, does not mention contraception. On the contrary, most of the 'sayings' (hadith) of the Prophet Mohammed (the second source of Islamic law) on the subject, tolerate coitus interruptus (azl). The position commonly and historically shared by Islamic jurists coincides with Al-Ghazali's interpretation according to which, under many circumstances, coitus interruptus is a blameworthy but tolerated (makruh) act. However, there has always been a minority of jurists opposed to contraception. Analogical reasoning (qiyas, the fourth source of Islamic law) makes it possible to legitimize most modern contraceptive techniques. Nowadays, because of the risks of overpopulation, the majority of Islamic governments have passed family planning laws; however among the masses the wrong belief that Islamic law prohibits contraception is spreading. Much of the general public still believes that Islamic law prohibits contraception. (18). Moreover, low literacy rate of female (33.7%), lack of women empowerment, male dominancy and cultural belief specially in the rural area also act as barriers to acceptance of family planning (19). The reason for selecting married women is due to the fact that, both culturally and religiously unmarried women are not allowed to have sex, so the use of family planning methods among the unmarried women is immaterial except some medical indication. In spite of so many barriers at least half of the women of reproductive age in rural areas have accepted Family Planning and using family planning methods. So, it is worthwhile to explore the factors related to the family planning methods use among the married women in rural area. If we can explore the factors related to the family planning methods use among the married women in rural areas, then we can suggest the policy makers to give emphasis on those factors to increase contraceptive prevalence and to address population problem properly.

1.2 Research question

1. What is the pattern of utilization of Family Planning Methods among the married women of rural community?
2. What is the contraceptive prevalence in rural community?
3. What are the factors related to Family Planning Methods among the married women of rural community?

1.3 Research Objective

1.3.1 General Objective

To study the factors related to the acceptance of Family Planning Methods among the married women of Methapukur Upazila in Rangpur district.

1.3.2 Specific Objectives

To identify the prevalence and pattern of Family Planning Methods use.

To describe the socio-demographic characteristics toward Family Planning Methods acceptance among the married women of reproductive age.

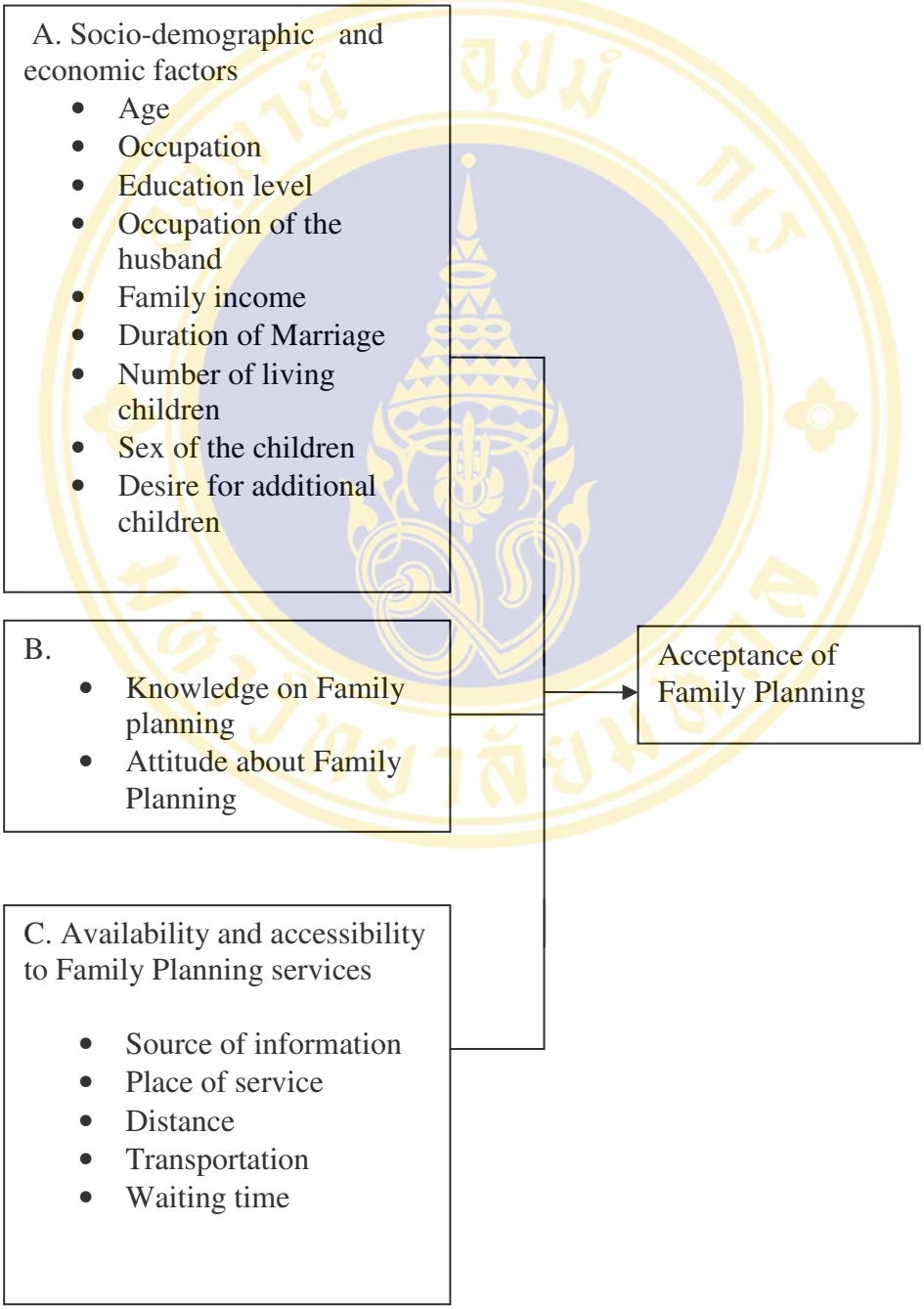
To find out the knowledge and attitude of the married women toward Family Planning Methods.

To describe the source of information, availability and accessibility to use of Family Planning Methods.

To identify the association between the selected socio-demographic characteristics, knowledge, attitude, accessibility and availability toward Family Planning Methods acceptance.

1.4 Conceptual Frame work

Independent variable **Dependent variable**



1.5 Operational definitions

Family Planning:

The ability and activity of parents to choose the number and space the birth of their children.

Acceptance of Family Planning Method:

Refers to the practice of the married women or their husbands including reason for using any method of contraceptive for family planning.

Family Planning Method:

Family Planning Method means the various methods of family planning such as: Oral pill, Condom, Intra Uterine Device (IUD), Injection. Norplant, Tubectomy, Vasectomy and some other methods.

Married women:

Can be defined as currently married women aged 15-49 years old and living with spouse, not conceiving and not having children less than one year or not breast fed at the time of interview.

Socio-demographic factors:

Socio-demographic factors of Married Women can be measured by age, duration of marriage, education level, occupation, family income, number of living children sex of child and sex preference.

Age:

Age was determined as complete years of women at the time of interview. The age of married women was grouped in to three categories:

15-29 yrs

30-39 yrs

40-49 yrs

Family income:

Refers to the total family income of all family members per month. Total family income was grouped as:

BDT. 2000 – 4999

BDT. 5000 – 7999

BDT. 8000 – 9999

BDT. ≥ 10,000

Occupation:

Refers to the present job of the married women and their husbands are holding at the time of interview, and was classified as: Housewife, Farmer, Service, Business, Laborer and others.

Education:

Refers to the highest education level for which respondents has passed an examination or successfully completed the course requirements. It was defined as follow; no education (illiterate), primary school, secondary school and higher secondary or degree.

Number and sex of children:

The total number of children the MWRA had at the time of interview and the sex of the children was also counted.

Desire for additional Children:

The desire of the couple to have more children in future

Practice of family planning :

Refers to the current use of any type of contraceptive methods. It was classified as follow:

Acceptor:

Those who was using a contraceptive method at the time of interview.

Non-Acceptor:

Includes those who used any contraceptive method before but discontinued (ever users), or those who never used any contraceptive methods (never users) till the time of interview.

Knowledge on family planning:

Referred to knowledge of respondents on family planning and family planning methods, consist of 20 questions about the meaning of family planning and family planning methods, efficacy, advantage or side effects and etc. Each correct answer was given '1' score and incorrect answer was given '0' score. Following total score, the knowledge was classified in to three groups following bloom criteria (20):

1. Good knowledge : > 80% of the total score
2. Fair knowledge : 60-80% of the total score
3. Poor knowledge : < 60% of the total score

Attitude towards the practice of Family Planning:

To measure the attitude of the respondents 12 questions was asked. Whether they agree or disagree with the statement use in Likert scale ranging from strongly agree to strongly disagree by the following criteria to give score:

1. Strongly agree (SA) =5
2. Agree (A) = 4
3. Undecided (UD) = 3
4. Disagree (D) = 2
5. Strongly disagree (SD) = 1

With the total score of 60, the attitude score was compute for the means and categorized to positive and negative by mean. If the total score above the mean, the respondents had positive attitude, and if the total score under the mean, the respondents had negative attitude.

Availability and Accessibility:

Availability includes place of services that the women can obtain contraceptive. Accessibility refers to the source information about family planning, traveling distance, and convenience of the women for getting contraceptive method.

Distance:

Refers to the traveling distance from respondents' residence to service centre.

It was categorized as:

Less than 3 km

3 – 5 km

More than 5 km

Transport:

Refers to vehicle use to reach service centre. It includes walking, private transport or public transport.

Time

It refers to waiting time at the service centre and categorized in to three level:

Less than 1 hour

1 hour to 2 hour

More than 2 hour

Source of Information:

Message about the use of family planning methods through media or Interpersonal conversation.

1.7 Limitation of the Study

The study was conducted in four randomly selected clusters of Methapukur Upazila (sub-district), so that the findings may not be represented the information of the whole sub-district. There are many factors related to the practice of family planning. This Study will not cover all factors. The basic factors such as, age, duration

of marriage, income, education, knowledge, attitude, accessibility, availability and etc. are only focused. The sub-district was chosen purposively. The interviewers were the Family Welfare Assistant, so there was possibility of bias during collection of data. However, 10% of collected data from each cluster were randomly verified by the researcher.

CHAPTER 2
LITERATURE REVIEW

2.1 General literature review of the study

Fertility is the actual performance of a population in bearing children. This complex phenomenon is determined by a magnitude of different factors. Due to significant roll in the process of the population growth, social scientists of diversified field have been investigating these factors. The complexity of fertility further involved researchers from other fields such as sociology, psychology and anthropology who took particular interests in identifying social psychological and cultural dimensions related to family planning behavior (21).

A woman's control over her own fertility has been called 'the freedom from which other freedoms flow.' Opportunities beyond marriage and children are a practical expression of *family planning* as a human right. The vast majority of governments now accept raising the status of women, for example by better *education* and health services, as a goal in itself: both increase a women's ability to make her own decisions in life and her potential for earning an income. But they are also important in promoting the right to *family planning*. "The right to *family planning* has been accepted by the international community for over 20 years. Understanding that *family planning* is a key component in social development, the International Conference on Human Rights in 1968 said that 'parents have a basic human right to determine freely and responsibly the number and spacing of their children', a statement which has been the basis of international action ever since, usually with the addition of the important phrase 'and to the information and the means to do so'. Ensuring that the right to *family planning* becomes a reality has three aspects. The first is the provision of services, information and *education*; and the second is removing legal restrictions to access. The third aspect, more easily overlooked but no less important, is social change in favor of *family planning* (22)

Since 1994, family planning use has increased globally from 55 per cent of married couples to around 61 per cent; it has grown by at least 1 percentage point per year in 68 per cent of countries with available data and by at least 2 points per year in 15 per cent of these countries. Use varies regionally, ranging from about 25 per cent in Africa to nearly 65 per cent in Asia (where high use in China raises the average), and 70 per cent in Latin America and the Caribbean and in the developed regions. However, many countries, particularly the poorest, still have restricted contraceptive access and choice. When China (with a large population and high prevalence) is left out of the calculations, only 46 per cent of married women in Asia are using contraception. In the least-developed countries, the average is much lower. Government support for methods of contraception —through government-run facilities, such as hospitals, clinics, health posts and health centers, and through government fieldworkers—has increased steadily since the 1970s. By 2001, the governments of 92 per cent of all countries supported family planning programs (23).

2.1.1 The precede-proceed model

The precede-proceed model is a framework for the process of systematic development and evaluation of health education programs designed by Lawrence Green and Marshall Kreuter (1998).

- Phase 1 Social Diagnosis
- Phase 2 Epidemiological Diagnosis
- Phase 3 Behavioral & Environmental Diagnosis
- Phase 4 Education & Organization Diagnosis
- Phase 5 Administrative & Policy Diagnosis
- Phase 6 Implementation
- Phase 7 Process Evaluation
- Phase 8 Impact Evaluation
- Phase 9 Outcome Evaluation

The four remain phases in Precede-proceed are implementation and evaluation (process, impact, and outcome), with emphasis on using the later to improve the former. Evaluation of the process begins as soon as implementation does, in order to detect problems early so they can be corrected. As implementation proceeds, the planer starts evaluating in the order in which program effects are expected.

Theory is most likely to be informative during phase 4 of the planning process suggested by Precede-proceed, or the educational and organizational diagnosis. This phase examines those behavioral and environmental condition liked to health status or quality of life concerns to determine what course them. The educational and organizational diagnosis identifies factors that must be changed. These factors will become the immediate targets or objective of the program.

According to the PRECEDE Framework, three categories: predisposing, reinforcing and enabling factor effect individual or collective behavior.

Predisposing factors:

Predisposing factor: are factor antecedent to behavior that provide the rational or motivation for the behavior. Include a person's or populations' knowledge, attitudes, beliefs, values and perceptions that facilitate or hinder motivation for changing.

Enabling factors:

Enabling factors are factor antecedent to behavior that allows a motivation or aspiration to be realized. Include personal skills, resources or barriers that can help or hinder the desired behavioral change as well as environmental change. Those antecedents to behavior that enables a motivation to be realized including the availability, accessibility, and affordability of health care and community resources which resources may be ample or inadequate, as may income or health insurance, and laws and statues may be supportive or restrictive.

Reinforcing factors:

Reinforcing factor: are factors subsequent to behavior that provide the continuing reward, incentive, or punishment for a behavior and contribute to its persistence or extinction. Include social support, praise, reassurance, and symptom relief might all be reinforcing factors (24, 25). In this study out of three categories of precede frame work, predisposing factors and enabling factors were used.

2.2 Studies on Family Planning Methods in Rural Areas

A study on the acceptance and use of contraceptive methods in the Kelantan region of Malaysia showed that 44.9 percent practiced contraception. Methods used were pills (55%), traditional methods (19%), tubal ligation (18%), safe period (14%), injections (5.5%), IUD (4.7%) and condom (2.3%). The Malaysian traditional methods are herbal preparations from tree bark or roots, herb pills and exercises after coitus. 34 percent of the non-contraceptors had ever used contraception before but stopped because of side effects, religious or spousal objections, or desire to conceive. 74 percent had married in their teens. 46 percent of the non-contraceptors were spacing their children by prolonged breastfeeding (26).

The study of Nayer *et al* (27) found that among the respondents sixty were acceptors and one hundred seventy were non-acceptors of long-term contraceptive methods. Socio-demographic characteristics of the both acceptors and non-acceptors of long-term contraceptive methods were same except their age. Acceptors of long-term contraceptive method were older than the non-acceptors. Regarding the reproductive characteristics acceptors were married for longer time than non-acceptors. There was significant association between acceptance of long-term method and number of male children and desired additional children. Acceptors had more living male children and desired less additional children than non-acceptors.

Another study was conducted by Khan *et al* (28) to explore predictors of inconsistent use of Oral Contraceptives (OCs) in rural Bangladesh. A total of 801 rural OC users were included in the study, about half of them (49%) missed one or more active pill(s) during the 6 months before the survey. Multivariate analysis

revealed that Muslim women were 60 percent more likely to be inconsistent OC users compared to their non-Muslim counterparts. Women who lacked knowledge about contraindications were 60% more likely to take the pill inconsistently than were women who had the knowledge. Women who were not visited by family planning workers or did not have access to mass media were 40 percent more likely to be inconsistent OC users.

Ahmed *et al* (29) investigated the following characteristics: age, income, education, farm size, family size, wife's age, wife's age at marriage, wife's education, newspaper reading, and radio listening. The results showed that 93 percent of the respondents indicated some knowledge concerning family planning methods, 58 percent expressed support for the family planning program, and 23 percent reported practicing some family planning method at the time of the study. Out of a total of 129 nonusers, 46 chose to explain their reasons for non-acceptance 50 percent cited religious reasons, 11 percent mentioned health concerns, and 39 percent cited old age. Of the 10 characteristics examined, 5 were found to differ significantly between users and nonusers, including age, farm size, education, newspaper reading, and radio listening.

The determinants of contraceptive use among married women in four villages in rural West Bengal, India have been studied by Chacko E (30) revealed that the factors that most influence a woman's use of contraception include her age, the number of living sons she has, and her religious affiliation.

Begum M.(31) conducted a cross sectional study to estimate the family size and to identify the factors influencing family size in rural areas of Bangladesh. The size of the family was observed as 4.59 persons where nearly half of the respondents (48%) having less than five members. Age of the respondent, number of children, age of the first and last child, average monthly income, number of rooms in the house, persons living in the main dwelling houses, number of earning persons having audio-visual assets had statistically significant association with the size of the family and all were with higher percentage in big family.

An examination of the characteristics of contraceptive acceptors in a family planning program in rural Bangladesh reveals trends of declining age and numbers of living children among new acceptors in the work of Bhatia S (32). A time series analysis of the age specific acceptance rates confirms the observation, indicating that over time the program succeeded in attracting younger and low parity women. The high use prevalence rates resulted in fertility levels that were 25 percent lower in the program area than in the comparison area. In analyzing the data based on husband's occupation, the survey reveals that at the start of the program all had low contraceptive use levels; however, those in more skilled occupations and higher socioeconomic levels showed greater initial acceptance rates.

2.3 Selected socio-demographic factors

2.3.1 Age and duration of marriage

Marriage in the most Asian societies defines the onset of the socially acceptable time for childbearing. Women who marry early will have, on average, a long period of exposure to pregnancy, often leading to a higher number of children ever born. *Marriage* during the teenage years is common in developing countries. Nevertheless, the situation varies greatly by country and region. In a few developing countries, marriage by *age* 18 is relatively uncommon. The proportions of women married by *age* 18 (10-14%) in Botswana, Namibia, the Philippines, Sri Lanka and Tunisia are similar to those in France and the United States, and the proportions married by *age* 20 (19-29%) are lower. Beginning the first *marriage* before *age* 15 is common only in Bangladesh and Niger, where about half of women aged 20-24 had married by that *age*. Nevertheless, the incidence of very early *marriage* ranges from 10% to 27% in seven Sub-Saharan African countries (Cameroon, Liberia, Mali, Nigeria, Senegal, Togo and Uganda) and six countries in other regions (Guatemala, India, Indonesia, Pakistan, Sudan and Yemen)(33).In Bangladesh the legal age of marriage is 18 years for women; however a large proportion of marriage still takes place before the legal age. According to BDHS-2004, 68 percent of women age 20-24 were married before the age of 18. The data indicated that over the last two decades, the proportion of

women marriage before the legal age had been gradually declining; but in recent years, it has increased again (16).

In 1987 Naviroj J. (34) studies the family planning acceptors of Bangkok Metropolitan Polyclinic. She concluded that the duration of marriage is associated with the continued use of contraception. The eligible women who have duration of marriage less than five years tend to discontinue the use of contraception earlier than those of women with the duration of marriage of ten years or more. Because of those who had shorter period of marriage still want additional children and for those who had longer period already reached the desired family size. The duration of marriage had high correlation with the number of living children.

Klitsch M.(35) stated that by the early 1990s, Japan's total fertility rate (TFR) had declined to about 1.5 lifetime births per woman, one of the lowest levels in the world. According to a recent examination of Japanese vital statistics and survey data, much of the decline over the past two decades could be attributed not to contraceptive use, but to the postponement of marriage: The mean age at which Japanese women marry--about 27 years--is among the highest in the world, and the proportion who likely will never marry has tripled in the past 20 years. The authors of the analysis conclude that several factors--increasing educational and employment opportunities for women, the rising costs of childrearing, and growing disenchantment with marriage probably account for these developments.

A study in Thailand by Leoprapai and Thonghtai (36) in 1987 found that the relationship between age and contraceptive use takes an inverted U-shape that is the proportion using modern methods varied with age, reaching the peak among those in their 30s and declining thereafter.

A study in Ratchaburi province of Thailand done by Win H (37) in 1993 revealed the majority of women were married at age 20 years and below. Among those majorities were current users representing 66.1 percent of them while ever users and never users were 17.5 percent respectively. For those who married at age above

20 years, most of them were current users representing 65.8 percent while ever users and never users were 17.9 percent and 16.3 percent respectively.

Banouvong V (38) studied on contraceptive use among rural married women in Xiengngeun district found that 71.2 percent of the women whose ages were between 15-25 years were using contraceptive, 79.5 percent of women between 26-35 years, and 75.8 percent of married women of age between 36-48 were using contraception. There was no significant relationship between age of married women and contraceptive use.

2.3.2 Number of children

In Bangladesh, according to BDHS (2004) among ever married women, 62 percent prefer a two-child family, 21 percent consider a third-child family ideal and 1 percent said that they would choose 5 or more children. The mean ideal family size among the ever-married and currently married women is 2.4 children (16).

A study in Philippines revealed positive correlations between continuation of family planning and desire to avoid child bearing, A woman who already has several children is likely to be more motivated to continue practicing contraception and practice it more effectively than either a woman who has relatively fewer children or one who feels that she is too old to have more children. (39).

A study in Thailand found that the percentage of childless women practicing contraception was still low, about 24 percent. However, the percentage of contraceptive use, increased sharply to a much higher level among women with children, reaching the peaks among with 3 children declining thereafter. The relationship between current contraceptive use and the number of lining children is curvilinear (36).

There was a positive relationship between family planning practice and the number of living children. Pitaktepsombat P. and Prachuabmob V. (40) found that it is likely the eligible women who have more living children will accept contraception

more easily than those who have fewer children. Among currently married women aged 15-44 who had two living children, nearly 65 percent wanted more, 55 percent of those with no son wanted no more, and 85 percent of women with two sons wanted no more, whereas 72 percent of those with a son and a daughter wanted no additional children.

In addition, women with a son and a daughter were more likely to practice contraception at around 72 percent than women with two children in the same sex (66% of those with two sons and 63% of those with two daughters). Furthermore, 84 percent of women with three children said they wanted no more and these two- third of such women used contraception.

Toan NV *et al* (41), studied the Utilization of Reproductive Health Services in Rural Vietnam, the result found that 70 percent of the women used contraceptive methods, with the intrauterine device (IUD) being the most common.

Win H (37) found that majority of women had 1-2children. Among them, 69 percent were current users while 17.3 percent were ever users and 13.7 were never users. Among those who had 3 and more children, majority were current users representing 61.2 percent while ever users and never users were equal at 19.4 percent. There were 50 percent of never users who had no child while 33.3 percent were current users and 16.7 were ever users.

Akhter HH and Ahmed S (42) found that the previous death of children, number of living children, desire for additional children and son preference were important determinants of contraceptive continuation. The importance of these factors varied to some extent with use of different contraceptive methods. The desire for more children may affect contraceptive use more strongly among women of low parity.

2.3.3 Education

Education is a key determinant of the life style and status an individual enjoy in a society. It affects many aspects of life, including demographic and health behavior. Studies have shown that educational attainment has strong effects on reproductive behavior, contraceptive use, fertility, mortality, morbidity, and attitude and awareness related to family health and hygiene (16).

Education is the most important factor for acceptance of family planning. Usually the educated women have more awareness and opportunities to know the importance of contraceptive in respect to birth control. The educated women are more likely to marry late, to the first pregnancy to leave more time between births and have few children in total. In accordance with the many studies in El Salvador, England and Philippines, there was a positive relation between education and contraceptive use specially studies have shown this relationship (43).

Many studies showed a positive relationship between education and contraceptive prevalence such as special studies in El Salvador England and the Philippines (43). It has been observed that there is and inverse relationship between fertility and literacy. Women without education have Total Fertility Rate (TFR) of one child higher than women with primary education and two children higher than those who have gone beyond middle education level. Also illiterate women more fearful of the side effects of contraceptives (44).

Piseth S (45) in his study found that more than half (54.5%) of the respondents had primary education, followed by high school and higher level (20.7%). Only 11.3% had no education. However, the association was not found significant.

A study on Factors affecting family planning behavior among married women of reproductive age in Ratchaburi Province of Thailand found that majority (62%) of the respondents had primary level of education and this was followed by elementary level (17.7%). Only 2.3% had higher level and 6.3 had no education. He also not found any significant association between family planning behavior and education (37).

Another study by Nhan TD (46) found that those who use contraceptive among them 83.9% respondents had educational level secondary school or higher. In contrast, about 62% non-user had educational level equal or less than primary. He found significant association between contraceptive use and educational status.

2.3.4 Occupation

An article presents an updated overview of the relationships between women's education and fertility. Data from the Demographic and Health Surveys (BDHS) for 26 countries were examined. The analysis confirmed that higher education is consistently associated with lower fertility. However, a considerable diversity exists in the magnitude of the gap between upper and lower educational strata and in the strength of the association. In some of the least-developed countries, education might have a positive impact on fertility at the lower end of the educational range. The study also examined the impact of female education on age at marriage, family-size preference, and contraceptive use. It confirmed that education enhances women's ability to make reproductive choices (47).

Contraceptive Prevalence Survey Report (48) showed that although the highest percentages of married women currently practicing contraception were in the professional and in the sales and business categories, the percentages of women in other occupation groups currently practicing contraception were also in the range of 70 or higher. It indicated that influence of this factor on contraceptive was dissipating. The lowest contraceptive prevalence rates were among those who were not working and housewife. There was still positive relationship between women labor force participation and contraception.

A study done by Win H (1993) revealed that the majority of women with current users were farmers and labors in 70.4% and 69.6% respectively and followed by house wife at 57.1 percent. It was found that there was a significant relationship between wife’s occupation and family planning behavior (37).

Khin WT (49), studied in Myanmar in1995. He found that women engaged in agricultural and non-agricultural employment were respectively 28 percent and 24 percent less likely to use contraception, compared with those women who were not working. This may to their long working hours without extra time to visit to contraception service available.

Banouvong V (38) found that 72.8 percent women worked as farmers using contraception, 74.8 percent of women who worked as private. There were 77.3 percent of women who worked as house wife. The contraceptive use among women who worked as government officers were 36.1 percent. There was a significant relationship between age of married women and contraceptive use.

2.3.5 Income

It was found that high income status, is being more exposed to family planning communication and having greater access to medical facilities, will be more likely to have contraception and continue such practice and to practice more effectively than others (50).

About economic status, it was found that Banouvong V 1999 (38), Nhan TD 2002 (46) and Laing JE 1985 (39) in their studies concluded that family income was significantly associated with contraceptive use, and was one of several main factors related to the continuation of contraceptive use among married women.

A study of Chamratrithiron *et al* (51) in Bangkok concluded that working women had higher continuation rates than who did not work. This may suggest that labor force participation is directly related to contraceptive continuation.

Vanhnolrath P (52) revealed that 39.6% respondents of his study had monthly income more than 600,000 kip. The median income was 500,000 kip. However, he did not find any significant association. Unlike Vanhnolrath P, Piseth S (44) found statistically significant association between monthly family income and family planning acceptance.

2.4 Knowledge of contraception

Remarkable progress has also been made in extending the knowledge and means of family planning. In three decades, the number of children born to the average women in the developing world fell from 6.00 to 3,7 overall. The proportion of married women using modern methods of family planning has increased from less than 10% to approximately 50%. The speed of this change is unprecedented in demographic history, with some 17 nations succeeding in having lower fertility rates in only one generation (United Nations).

The most significant development in reproductive health over the past few decades according to "Dr. Hiroshi Nakci Jima, Director General of WHO", has been the major benefit of individuals, families, societies and the world at large (WHO, 1992). Evidence from contraceptive prevalence surveys in Thailand (1979) showed that 97 percent of rural women and 98 percent of urban women know at least one contraceptive method (53).

Evidence from contraceptive prevalence in Thailand in 1997, found that 97 percent of rural women and 98 percent of urban women knew at least one contraceptive method. The mean member of known contraceptive method was 3.34 and the most widely known contraceptive was clearly pill (International Family Planning Perspective 1980).

Contraceptive prevalence survey in the Philippines (1986) has shown that a big gap still exists between the level of family planning knowledge, attitude (both workers and clients) and practice while the level of knowledge has been almost universal at 97 percent even as early as 1983. The contraceptive prevalence rate was only 45 percent for the period 1986 to the mid 1987. Pills and injectable contraception (Depoprovera) where the most popular methods reflected in the contraceptive prevalence survey in Thailand. Laing J. (1985) in the Philippines and Lien Pin Chow (19) in Taiwan found that the higher of knowledge the higher indecision of family planning (54).

Win H. (1993) revealed that majority of women had high knowledge of family planning. 75.9 percent of the women with high level were current users while ever users and never users were 16.7 percent and 7.4 percent respectively. For those with middle level of knowledge 60 percent were current users while ever users and never users were 17.6 percent and 22.4 percent respectively (37).

Althaus, F (55) study found that married Moroccan women knew of a contraceptive method in 1995, with almost no variation by *age*, residence or educational level; 74% had ever used one. Fifty percent of those interviewed were practicing contraception at the time of the survey. Contraceptive prevalence was much higher among urban women than among rural women (64% vs. 39%). It rose from 45% among women with no education to 66% among those with a secondary or higher education.

Kaur HP (56) found that all the women knew about family planning. The women considered the purpose of family planning to be limiting family size (80%), spacing children (53.3%), and preventing conception of children (33.3%). Indeed 40% used a family planning method to space their children, 33.3% to limit family size, and 26.7% to cease childbearing. The leading known methods included the copper T, IUD (100%), tubectomy (93.3%), vasectomy (86.6%), and condom (86.6%). 60% of the women and 13.2% of their husbands used a contraceptive.

A country-wide survey by Tountas Y *et al* (57) found that only a small percentage of the respondents were able to answer correctly 50% or more of the questions on knowledge of basic contraceptive issues (30.6% of women and 14.7% of men). Regarding sources of information, media and friends were reported as the primary sources of information for men of all ages and young women. The gynecologist becomes a significant source of consultation for women only after the age of 25 years.

A follow-up study conducted on contraceptive use in Bangladesh. The result showed that a high level of knowledge about modern contraception, with nearly 95%

of the women able to identify at least on modern method (94% mentioned oral contraceptives, 65% IUDs, 76% condoms, 64% injectables, 89% female sterilization, and 74% male sterilization) (58).

2.5 Attitude towards family planning practice

According to Family Planning World wide 2002 Data Sheet, the researchers had stated that, despite the rise in family planning use evidence in surveys, mother's attitude toward recent births around the world in late 1999s was more than one-forth births world wide are unplanned (59).

Aja GN *et al* (60) in his study found that about 68% had a positive attitude towards family planning. 36% used family planning methods. Men were less likely to have a positive attitude towards family planning than women (46.3% vs. 98.7%; p 0.001).

Baba Y (61) revealed that 53.6% of the women said that they and their husbands approved of family planning, 2.9% disapproved, and the rest were undecided. Only 30.4% had discussed family planning with their husbands. 21.7% stated that they would use contraception, either the pill or sterilization, after their family was completed.

Ozumba BC *et al* (62) in their study KAP study in rural and urban community found that most respondents of both urban and rural area had positive attitude towards contraception.

2.6 Availability and accessibility of contraceptive services

Availability and accessibility of family planning services is an important determinant of contraceptive use. It is widely accepted that family planning services are essential to fertility decline. The proximate determinant of ongoing fertility decline in the developing world has been the widespread adoption of contraception. In Vietnam, the ease of obtaining contraceptives has been shown to be an important factor in the success of family planning programs.

Nearly 84% of currently married Vietnamese women—100% of those in urban areas and 80% of those in rural areas—lived within one kilometer of least one source of family planning services in 1997. Commune health clinics and drugstores were the major providers, with 55% and 47%, respectively, of women located within one kilometer of such sources; these were followed by community health and family planning workers (40% and 27%). A multiple regression analysis showed that ready access to any source of family planning significantly reduced nonuse of modern methods (odds ratio, 0.6) and current use of traditional methods (0.6) (63).

A study in Nepal showed that the proportion of women who knew of a family planning services outlet in Nepal increased sharply between 1976 and 1981, from 6% to 33%. The Contraceptive Prevalence Survey data of 1981 indicated that an inverse relationship exists between the prevalence of current contraceptive use and travel time to an outlet. Unfortunately, a majority of current users in Nepal need more than 1 hour to reach an outlet. (64).

Another survey in Guatemala found that a substantially lower proportion of Indian couples (4%) than Ladino couples (27%) were using contraception outside the Department of Guatemala, but the 2 groups have similar birth rates, probably due to the pattern of prolonged breastfeeding among Indians. Outside the Department of Guatemala, Indians marry younger than Ladinos; 50% of 15-19 year old Indian women were married (including consensual unions) compared with 32% of Ladino women. For Ladinos, the use of reversible modern methods consistently decreased

with an increase in average travel time to the source of contraception, but Indians' use of contraception apparently bears little relationship to accessibility (65).

Banouvong V (38), study on Contraceptive use among Rural married Women in Luangprabang province, Lao PDR. Concerning the source of contraceptive services most of them got the services from government section. There was a significant association between source of contraceptive services and contraceptive use. Majority of users received their services to travel less than 5 km. And also there was a significant association between distance and contraceptive use. In general women had much better access to contraceptive services in urban areas than rural areas. There was a significant association between convenience of service, cost of contraceptive and contraceptive use.

Kamuansilpa P *et al* (66), revealed that a woman has to traveled approximately 20 minutes to get pills and about nine hour for a sterilization. Other temporary methods also took about less than half an hour to obtain services. In general the accessibility to service measured preliminarily by travel time seems to be fairly favorable in Thailand. Sadiqa N (35) concluded that over 95 percent of people in the developing world live in countries that directly support family planning programme. The average distances that women must travel to their nearest clinic providing family planning services varies greatly, ranging from one kilometer in Egypt to 19 kilometers in Uganda.

Win H (37) found that there was a significant association between waiting time and behavior of family planning. Approximately 85 percent of the contraceptive users got their services within 15 minutes of waiting time while 15 percent were ever users. And among women who spent time more than 15 minutes to get services, most of them where current users at 70.2 percent while ever users were 29.8 percent.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Study Design

This was a cross-sectional study, and the main purpose was to study the factors related to socio-demographic, knowledge, attitude, accessibility and contraceptive use among the married women of reproductive age.

3.2 Study Population

The study population was the married women of reproductive age (15-49 yrs), who were staying with their husband, not conceiving during the study period and who didn't have a child less than one year of age, not breast fed during the time of study and residing in selected unions of Methapukur Upazila(Sub-district).

3.3 Study Place

The study was conducted in Methapukur Upazila(Sub-district) of Rangpur district. Methapukur is 30 k.m far from Rangpur district. It consists of 17 unions and having a population of 449612. The number of 15-49 years women and eligible couple was 126770 and 107450 respectively. The Upazila was selected purposively. Out of 17 unions four was selected by simple random sampling. The unions were i)Durgapur (No.14), Latifpur(No.7), Milonpur and Chingmari(No.8). Each union consists of three wards and out of three wards one was selected from each four unions by simple random sampling. The selected wards were ward No.1 of Durgapur union, ward no.3 of Latifpur union, ward no.1 of Milonpur union and ward no.2 of Chingmari union. Each ward has eight outreach centres. Each outreach comprise of 250-300 households. The outreach center was considered as cluster. One cluster was selected from each selected ward by simple random sampling. The selected clusters

were Kha-2 of ward no-1 Durgapur, Gha-1 of ward no.3 Latifpur, Kha-1 of ward no.1 Milonpur and Ka-2 of ward no.2 Chingmari.

3.4 Sample Size Estimation

The sample size was estimated using following formula:

$$n = \frac{z^2_{\alpha/2}\, p(1-P)}{d^2}$$

n = Sample size

Z = Standard normal deviation with 95% confidence interval = 1.96

d = Degree of accuracy = 5%

$\alpha = 0.05$

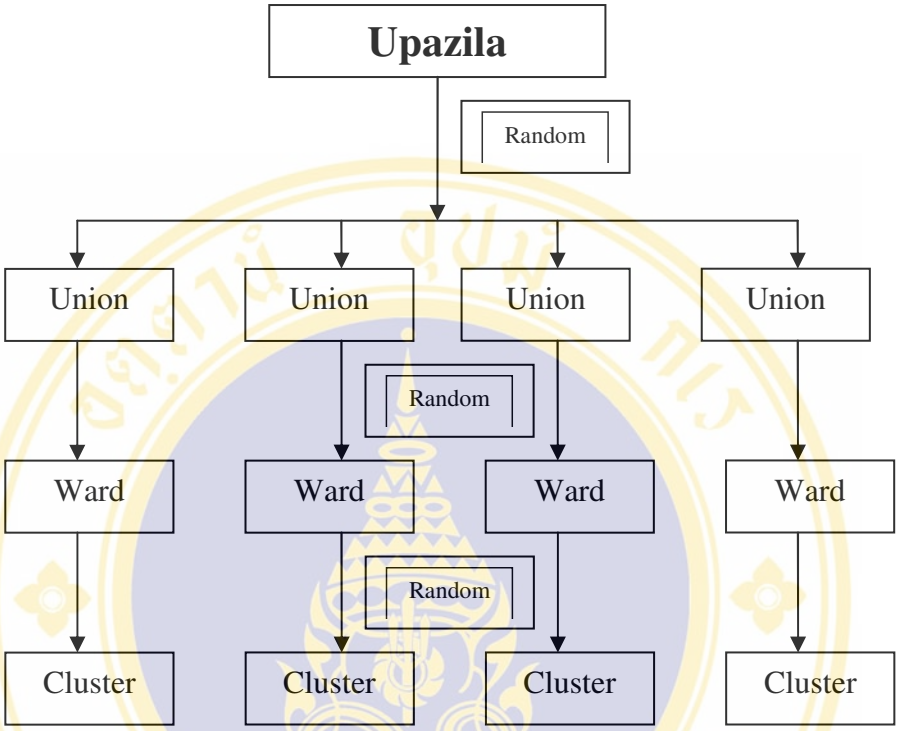
Contraceptive Prevalence = 55% (Report of Methapukur sub-district,2005)

P = 0.55

$$n = \frac{(1.96)^2\ 0.55\ (1\text{-}0.55)}{(0.05)^2}$$

n = 380

3.5 Sampling technique



3.6 Data Collecting tools and methods

The instrument that was used for data collection is a structured questionnaire. The married women were interviewed by the trained interviewers. Before data collection the questionnaire was pre-tested for validity and reliability. As per Kuder-Richardson formula (K20 & K21) the reliability of the questions of knowledge part was 0.78 and 0.65 respectively. For the questions of attitude part the reliability was 0.80. The interviewer was selected and trained for two day before data collection. A total of 420 women were interviewed. From each randomly selected cluster 105 married women were interviewed on the basis of selection criteria. 10% of the collected data from each clusters were randomly verified by the researcher.

3.7 Data analysis procedure and statistics used

Data was analyzed by using standard statistical package. EPI6 was used for data entry and Minitab was used for data analysis. Descriptive statistics and Chi-square test was used to analyze the data.

CHAPTER 4
RESULTS

A total of four hundred twenty married women of reproductive age were interviewed from 6th to 21st January 2006. After screening for missing data and multiple responses, 390 data were used for analysis. The rest 30 data were discarded. The data were collected from four randomly selected outreach centre of Mithapukur Upazila at Rangpur district, Bangladesh.

Descriptive statistics were used to describe different variables such as age, duration of marriage, occupation, education, knowledge, attitude etc. Chi-square test was used to find out the association between the socio-demographic status, knowledge, attitude, accessibility and the practice of family planning of married women of reproductive age. The level of significance for all comparisons was set up at 5% level, and the results were presented as follows:

1. Characteristics of married women in frequency and percentage
2. The association between independent and dependent variables

4.1 Socio-demographic characteristics

Table 1 Socio-demographic characteristics

Characteristics	Frequency n = 390	Percentage (%)
Age groups (years)		
15-29	177	45.38
30-39	164	42.05
40-49	49	12.57
Mean = 30.50	SD = 7.07 Min = 17	Max = 47
Duration of Marriage (years)		
1-5	86	22.05
6-10	91	23.33
11-15	86	22.05
≥16	127	32.57
Mean = 12.62	SD = 7.53 Min = 1	Max = 32
Occupation of the respondents		
House wife	337	86.41
Service holder	21	5.38
Business	9	2.31
Laborer	23	5.90
Occupation of the husband of married women		
Service	38	9.74
Business	88	22.57
Farmer	161	41.28
Laborer	103	26.41
Family Income		
Tk.2000-4999	230	58.97
Tk.5000-7999	107	27.44
Tk.8000-9999	26	6.67
Tk.≥ 10000	27	6.92
Mean = 4877	SD = 2343 Min = 2000	Max = 13000
Education level		
No education	118	30.26
Primary	145	37.18
Secondary	99	25.38
Higher secondary and degree	28	7.18

The descriptive statistics for socio-demographic factors was analyzed in Table 1. It showed that 45% of the respondents belonged to the age group 15-29 years; this was followed by the age group 30-39 years (43%). Only 12.57% of women were belonging to 40-49 years group. The mean age of the respondents was 30.5 years with

standard deviation of 7.07 years. The minimum and maximum age was 17 years and 47 years respectively.

According to the duration of marriage, the minimum duration was 1 year and the maximum was 32 years. The study revealed that 32.57% of respondents had married for more than 16 years, while the percentage of duration of marriage was equal (22.05%) in the 1-5 years and 11-15 years groups. The average of marriage duration and the standard deviation were 12.62 years and 7.53 years respectively.

Concerning the women and their husband's occupations, majority of the married women and their husband were housewives (86.41%) and farmer (41.28%) respectively. Only 5.38% of women were engaged in service, 5.90% work as laborer, and 2.31% were doing business. Only 9.74% of their husbands were service holder, and 22.57% and 26.41% of their husband worked as businessman and labor respectively.

Regarding the monthly family income of the respondents, it revealed that, the minimum family income was BDT. 2000 and the maximum was BDT.13000. The average family income of the respondents was Tk. 4877. Majority (58.97%) of the respondents belonged to the income group Tk. 2000-4999.

Majority of the respondents were in the no education (30.26%) and primary level education (37.18%) groups. Only 7.18% had higher secondary and degree level of education.

Table 2 Information about the children of the respondents

Table 2.1 Frequency and percentage of the respondents by presence of living child

Characteristics	Frequency n = 390	Percentage (%)
Distribution of the respondent by having of living child		
Yes	359	92.05
No	31	7.95

Table 2.1 showed the information about the presence of living children of the respondents. The result showed that the majority of the respondents (92.05%) had living child.

Table 2.2 Frequency and percentage of the respondents by number and sex of living child

Characteristics	Frequency n = 359	Percentage (%)
No. of living Children		
1 Child	96	26.74
2 Children	128	35.65
3 Children	88	24.51
4Children	34	9.47
5 or more Children	13	3.62
Mean = 2.29	SD = 1.12 Min = 1	Max = 7
No. of living Son(s)		
No son	89	24.79
1 son	170	47.35
2 sons	78	21.73
3 sons	18	5.01
4 sons	04	1.12
Mean = 1.10	SD = 0.87 Min = 0	Max = 4
No. of living daughter(s)		
No daughter	82	22.84
1 daughter	167	46.52
2 daughters	81	22.56
3 daughters	23	6.40
4 or more daughters	06	1.68
Mean = 1.19	SD = 0.95 Min = 0	Max = 6

Table 2.1 showed that the minimum and maximum number of living children was 1 and 7 respectively. The percentage of women, who had 2 children, was 35.65. The women having 1 child was 26.74%, followed by 24.51% and 9.47% had 3 and 4 children respectively.

Regarding the number of living son of the married women, 47.35% had 1 son, followed by 21.73% had 2 sons, 5.01% had 3 sons and 1.12% had 4 sons. The percentage of women having no son was 24.79. The average number of son was 1.10, and the minimum and maximum number was 0 and 4 respectively.

The percentage of women having 1 daughter was 46.53. Only 1.68% had more than 4 daughters. The number of women having no daughter was 82(22.84%).The average number of daughter was 1.19. The minimum and maximum number of daughter was 0 and 6 respectively.

Table 3 Information about the desire for additional children of the respondents

Characteristics	Frequency (n)	Percentage (%)
Desire of additional child n =359		
Yes	120	33.43
No	216	60.17
Don't know	23	6.40
N0. of additional child n = 120		
1 Children	112	93.33
2 Children	08	06.67
Sex preference among those, who want 1 additional child n = 112		
1 Son	76	67.86
1 daughter	36	32.14
Mean = 0.37	SD = 0.48 Min = 0	Max = 1
Sex preference among those, who want 2 additional child n = 8		
1 Son & 1 daughter	8	100
2 daughters	0	0
2 sons	0	0
No. of Children a family should have n = 390		
1 Child	33	8.46
2 Children	288	73.85
3 Children	58	14.87
4Children	11	2.82
Mean = 2.12	SD = 0.58 Min = 1	Max = 4

Table 3 showed that only 33.43% of women, who had living children, would like to have additional children. Majority (93.33%) of the respondents expressed their opinion in favor of one child and the remaining 6.67% would like to have two children.

The study also depicted that among the respondents, who would like to have one additional child, 67.86% of them preferred to have son in future and the rest (32.14%) preferred daughter. The respondents, who would like to have 2 additional children in future, 100% of them preferred to have one son and one daughter in future.

In response to the number of children a family should have, majority (73.85%) of the respondents expressed their view in favor of two children. Only 2.82% stated that the family should have four children. The minimum number of children a family should have was 1 and the maximum was 4. The mean and standard deviation of the number of children was 2.12 and 0.58 respectively.

4.2 Distribution of women's knowledge on family planning

Table 4 Percentage distribution of respondents by knowledge items on family planning

Knowledge items	Frequencies n = 390	%
Meaning of family planning		
Child spacing and choosing the number of children	167	42.82
Birth control	180	46.15
Having only one child	43	11.03
Knowledge about contraceptive methods		
Know all methods	185	47.44
Don't know about all methods	205	52.56
Knowledge about single Contraceptive methods (Multiple answer)		
Pills	390	100.00
Condom	354	90.77
IUD	326	83.59
Injection	333	85.38
Tubectomy	357	91.54
Vasectomy	314	80.51
Norplant	236	60.51

Concerning the three meanings of family planning in table 4, it showed that 46.15 of the respondents understood it as birth control, 42.82% told "Child spacing and choosing the number of children" as the meaning of family planning, while only 11.03% expressed " Having only one child" as the meaning of family planning. Regarding the knowledge about contraceptive methods, it found that most of the respondents knew about the methods used in family planning. More than 80% of respondents knew that Pills, Condom, IUD, Injection, Tubectomy and Vasectomy

were contraceptive methods, and about 60% of respondents knew about the Norplant. However, only 47.44% of respondents succeeded to tell about all methods of family planning.

Table 5 Frequency and percentage distribution of respondents by knowledge items on family planning

Knowledge items	Correct answer Frequencies n = 390	%
1. Women should take oral pill every day to avoid pregnancy	384	98.46
2. Oral pill can cause dizziness and nausea	278	71.28
3. IUD is a method use for pregnancy prevention in women only	357	91.54
4. Women can have bleeding by using IUD	116	29.74
5. Injection can prevent pregnancy for several months	357	91.54
6. Vomiting is a side effect of contraceptive injection	174	44.62
7. Breast feeding is a method to control birth spacing	172	44.10
8. Women can have children again by stopping to take pill or injection	375	96.15
9. Women can have children again by removing tubectomy	67	17.18
10. Injection causes cessation of breast milk	179	45.90
11. One of the reasons for cervical cancer is having IUD more than three years	66	16.92
12. Oral pill gives more chance to have cervical cancer	151	38.72

Regarding the knowledge of advantage, side effect and procedure of using family planning methods, it revealed that 98.46% of respondents knew that pill should be taken every day and 96.15% respondents knew that after stopping pill or injection women can pregnant again. About 71% admitted that oral pills cause dizziness and nausea. Majority (91.54%) of respondents knew that IUD used to prevent pregnancy in women only and the same percentage of women knew that injection prevent

pregnancy for several months. So, the percentage of correct answer was high in five statements. The percentage of correct answer was very poor in the statements regarding the relationship between use of IUD and pills, and occurrence of cancer (17.18% & 16.92%).

Table 6 Frequency and percentage distribution by score of knowledge on family planning

Characteristics	**Frequencies n =390**	**Percentage %**
Knowledge on family planning		
Good (> 80%)	139	35.64
Fair (60% – 80%)	212	54.36
Poor (< 60%)	39	10.00
Mean = 14.47 SD= 2.56 Min = 6 Max = 20		

The knowledge of family planning was categorized in to three groups, good (>80%), fair (60%- 80%) and poor (>60%). More than half (54.36%) of the respondent had fair knowledge, while the percentage of good and poor knowledge were 35.64 and 10 respectively.

4.3 Distribution of women's attitude towards practice of family planning

Table 7 Percentage distributions of respondents by attitude toward family planning

Attitude items	SA %	A %	UD %	D %	SD %
1. Contraceptive use can help a couple in selecting the number of children	53.85	34.62	8.97	2.31	0.26
2. Family Planning is good for mother's health	27.18	62.82	8.72	1.28	0
3. Family Planning is not good for children's health	1.03	11.28	46.41	37.44	3.85
4. Family Planning should not be taught before getting marriage	6.67	21.54	34.62	33.33	3.85
5. Family Planning should be taught in junior high school	10.51	27.69	29.74	27.18	4.87
6. Discussion on use contraceptive is not ashamed among the couple	33.08	35.90	22.82	7.69	0.51
7. The couples with practicing F.P can have sex freely	37.18	39.49	20.26	2.31	0.77
8. Oral contraceptive can be used safely to avoid pregnancy	42.05	42.05	13.59	2.05	0.26
9. Family Planning is restricted in your custom or community	4.10	37.35	21.54	33.85	2.56
10. IUD method disturbs sexual intercourse	0.77	8.97	38.72	41.03	10.51
11. Women can still work hard after having tubectomy	2.05	11.03	29.49	47.69	9.74
12. Most contraceptive methods are more benefit then there side-effect	37.44	52.05	8.72	0.26	1.54

(SA- Strongly agree, A-Agree, UN- Undecided, D-Disagree and SD- Strongly disagree)

Table 7 showed that the highest percentage of strongly agree was 53.85 and the lowest was 2.05 for positive statements. Similarly the highest percentage of agree was 62.82 and the lowest was 11.03 for positive statements. The highest percentage of undecided was 46.41 and the lowest was 8.72. The percentage of strongly disagree was very low for both positive and negative statement. The highest percentage of disagree for positive statement was 47.69 and the lowest was 0.26. The highest percentage of disagree for negative statement was 41.03 and the lowest was 33.33.

Table 8 Frequency and percentage distribution of respondents by score of attitude towards family planning

Characteristics	**Frequencies n = 390**	**Percentage %**
Attitude toward practice of Family Planning		
Positive attitude ($\geq$ Mean)	203	52.05
Negative attitude (< Mean)	187	47.95
Mean = 44.52 SD= 5.92 Min = 30 Max = 58		

The attitude towards family planning was divided in to two groups as positive and negative attitude. Those who had score higher than mean score was considered as positive attitude and those had score below the mean, was considered as negative attitude. More than half (52.05%) of the respondents had positive attitude. The minimum and maximum score was 30 and 50 respectively with mean score of 44.42.

4.4 Frequency and percentage distribution of married women on contraceptive use

Table 9 Frequency and percentage distribution of respondents by contraceptive use

Characteristics	Frequency n= 390	Percentage (%)
Ever use F.P methods		
Yes	325	83.33
No	65	16.67
Currently using F.P methods n = 325		
Yes	183	56.31
No	142	43.69
Type of F.P methods use currently n = 183		
Pills	107	58.47
Injection	44	24.04
IUD	08	04.37
Tubectomy	13	7.11
Norplant	11	6.01
Reason for using F.P methods n =183		
Don't want child	114	62.30
Not healthy	16	8.74
Poor economic condition	33	18.03
Want child late	20	10.93
Reason for not using F.P method for past users (Multiple response) n = 142		
Leave it to nature	56	60.56
Husband disapproves	55	38.73
Husband use condom	15	10.56
Husband has under gone vasectomy	13	9.15
Fear of side effect	27	19.01
Want more child/child	58	40.85
Count days(safe period)	13	9.15
Cessation of menstruation	7	4.93
Reason for not using F.P methods for never users (Multiple response) n=65		
Leave it to nature	24	36.92
Husband disapproves	20	30.77
Husband use condom	7	10.77
Fear of side effect	3	4.62
Want more child/child	46	70.77
Count days(safe period)	9	13.85

Table 9 showed that 83.33% of the respondents ever use family planning methods and 16.67% never used any method. Among the ever users, the percentage of currently users of family planning methods was 56.31, while the percentage of past users was 43.69. Among the current users, the popular methods were oral pills (58.47%) and injection (24.04%) respectively. Less than 10% respondents who were current users used Tubectomy, IUD and Norplant.

Majority (62.30%) of the current user stated," Don't want child" as a reason for using contraceptive. Poor economic condition (18.03%) was the second reason for using contraceptive. About 9% of the respondent mentioned," Not healthy" as reason for using contraceptive. The rest 10.93% practiced family planning because they want child late.

Regarding the reason for not using contraceptive among the past users, 60.56% said that they leaved it to nature; nearly 41% mentioned about more children, 38.73% said that their husbands disapproved. About 19% didn't use contraceptive due to fear of side effect. Husband practiced family planning (Condom 10.56% & Vasectomy 9.15%) and practiced safe period (9.15%) were other reasons for not using contraceptive by the respondents. Only 4.93% stated that they didn't use it because the menstruation stopped.

Majority (70.77%) of the never users stated that they didn't use family planning methods because they want more children/child. About 37% said that they leaved it to nature; 30.77% said that their husbands disapproved. About 4.62% didn't use contraceptive due to fear of side effect. Husband practiced family planning (Condom 10.77%) and practiced safe period (18.35%) were the other reason for not using contraceptive by the respondents.

4.5 Number and percentage distribution of married women about accessibility to family planning methods

Table 10 Frequency and percentage distribution of married women by Source of information about family planning methods

Characteristics	Frequency n =325	Percentage %
Source of contraceptive information (multiple response)		
Relatives/ Friends	187	57.54
Health personal (FWA/HA/FWV/Doctor/ Nurse)	298	91.69
NGO worker	100	30.77
Drug seller	19	5.85
Radio	83	25.54
Television	94	28.92
Poster/leaflet	27	8.31
News paper	20	6.15

Concerning source of information, majority (91.69%) of respondents received information about contraceptive from health personnel (91.69%). This was followed by relatives/friends 57.54%, NGO health workers 30.77%, television 28.92% and radio 25.54%. The percentage of other sources of information such as drug seller, poster and newspaper were only 5.85, 8.31 and 6.15.

Table 11 Frequency and percentage distribution of married women by place of Family planning services

Characteristics	Frequency n =325	Percentage %
Know the place of contraceptive service		
Yes	325	100
No	0	0
Main source of contraceptive service		
Upazila Hospital	31	9.54
H&FWC	27	8.31
Satellite Clinic	49	15.08
Pharmacy	15	4.62
Home	203	62.46
Supply of contraceptive at home by type of health personnel n= 203		
FWA	168	82.76
NGO worker	35	17.24

About the place of contraceptive service, 100% of the current and past users knew the place that provides contraceptive service. Majority (62.46%) current and past users received contraceptive at home and 82.76% of the services at home was given by the Family Welfare Workers (FWAs). About 15% of the service was provided by satellite clinic, 9.54% by the Upazila hospital and 8.31% by H&FWC. Only 4.61% respondents used pharmacy for buying contraceptive.

Table 12 Frequency and percentage distribution of married women by distance of service center

Characteristics	Frequency n =122	Percentage %
Distance from residence to service center		
<3 Km	94	77.05
≥3 km	28	22.95
Convenience for going to service center		
Convenient	89	72.95
Not sure	33	27.05

In terms of distance from the residence to the service center, the majority (77.05%) of the women were living less than 3 km from the service center and 72.95% of the women opined that it was convenient for going to service centre.

Table 13 Frequency and percentage distribution of married women by transportation to service center

Characteristics	Frequency n =122	Percentage %
Mode of transport use to go to service center		
Walking	91	74.59
Public vehicle	31	25.41

Table 13 showed that, 74.59% women went to service center on foot. Only 27.05% used public vehicle.

Table 14 Frequency and percentage distribution of married women by waiting time at service center

Characteristics	Frequency n =122	Percentage %
Waiting Time		
Less than 1 hour	81	66.39
1-2 hour	41	33.61

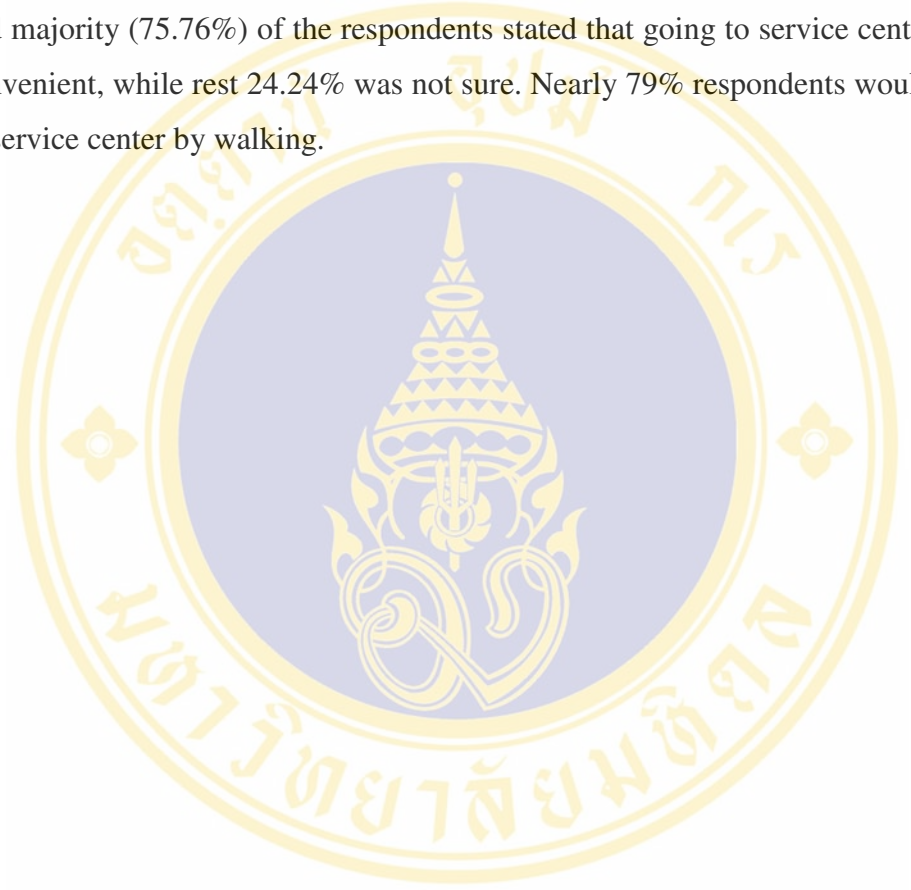
Table 14 showed that, those who received services other than home, majority (66.39%) of the them had to wait less than one hour for getting services.

Number and percentage distribution of married women (Never use Family Planning) about accessibility to family planning methods

Table 15 Frequency and percentage distribution of married women who never use contraceptive by availability and accessibility to family planning methods

Characteristics	Frequency n =65	Percentage %
Main source of contraceptive service in future		
Upazila Hospital	13	20.00
H&FWC	4	6.15
Satellite Clinic	15	23.08
Pharmacy	1	1.54
Home	32	49.35
Distance from residence to service center n = 33		
<3 Km	29	87.88
3-5 km	4	12.12
Convenience for going to service center n = 33		
Convenient	25	75.76
Not sure	8	24.24
Mode of traveling to contraceptive center n = 33		
Walking	26	78.79
Private vehicle	7	21.21

Table 15 showed that the main source for getting contraceptive service in future were at home (49.35%), satellite clinic 23.08%, hospital 20% and H&FWC 6.15%. Only 1.54% mentioned pharmacy as a source for getting contraceptive in future. Among the respondents, who never used contraceptive before, 87.88% stated that the distance of the service center from their residence was less than 3 kilometer and majority (75.76%) of the respondents stated that going to service center would be convenient, while rest 24.24% was not sure. Nearly 79% respondents would like to go to service center by walking.



4.6 Result of association between various independent variables of interest and dependent variables

Table 16 Association between age, duration of marriage, occupation, income, education and acceptance or non-acceptance of family planning among married women of reproductive age

Characteristics	Acceptor		Non Acceptor		χ^2	p - value
	Current user		Past and never user			
	n= 183	%	n= 207	%		
Age group						
15 – 29	66	37.29	111	62.71	12.47	
30 – 39	92	56.10	72	43.90	df= 2	0.002
40 – 49	25	51.02	24	48.98		
Duration of marriage						
1 – 5	21	24.42	65	75.58	24.03	
6 – 10	45	49.45	46	50.55	df = 3	0.000
11 – 15	44	51.16	42	48.84		
≥16	73	57.48	54	42.52		
Occupation of the respondents						
House wives	161	47.77	176	52.23		
Service	10	47.62	11	52.38		0.46*
Business	6	66.67	3	33.33		
Laborer	6	26.09	17	73.91		
Husbands occupation						
Service	17	44.74	21	55.26	0.19	
Business	41	46.59	47	53.41	df = 3	0.98
Farmer	75	46.58	86	53.42		
Laborer	50	48.54	53	51.46		
Income						
Tk.2000-4999	115	50.00	115	50.00	3.33	
Tk.5000-7999	44	41.12	63	58.88	df = 3	0.43
Tk.8000-9999	10	38.46	16	61.54		
Tk. ≥10000	14	51.85	13	48.15		
Education						
No education	58	49.15	60	50.85	3.17	0.37
Primary	73	50.34	72	49.66	df = 3	
Secondary	39	39.39	60	60.61		
Higher secondary & degree	13	46.43	15	53.57		

* Fisher's exact test

Table 16 showed that the percentage of current acceptor of family planning methods were more (56.10% and 51.02%) in the age group 30-39 years and 40-49 years. Majority (62.71%) of the past and never acceptors were in the age group 16-29 years. Significant association (p-value = 0.002) exists between age of the married women and acceptance or no-acceptance of family planning.

Regarding the duration of marriage, it found that 57.48% of the current user of family planning had duration of marriage 16 years or more, 51.16% had 11-15 years and 49.45% had 6-10 years. Majority (75.58%) of the past acceptor and never acceptor had duration of marriage 1-5 years. Significant association exists (p-value <= 0.001) between duration of marriage and acceptance or non-acceptance of family planning.

The study revealed that among the respondents, who were engaged in business, 66.67% were acceptors, while in the laborer group, majority (73.91%) were the past user and never user. Since, there is more than 20% of the cells that have expected count less than 5, the chi-square test cannot be applied, so the occupation was grouped as in house worker and outside worker and Fisher exact test performed. There was no significant association found between occupation of married women and acceptance or no-acceptance of family planning (p-value = 0.40).

In the service group about 55% of husbands of past and never user respondents were service holder, while in the laborer group 48.54% husband of current user was laborer. There was no significant association found between husband's occupation and acceptance or non-acceptance of family planning (p-value = 0.98).

Concerning the family income of the respondents it was found that equal number of acceptor and non-acceptor were belonged to income group BDT. 2000-4999. The percentage of acceptor (51.85) in BDT. 10000 and above group was more than non- acceptor (48.15).However, there was no significant association found

between family income and acceptance or non-acceptance of family planning (p-value = 0.43).

Regarding education, the result showed that in the in the secondary level 60.61% was non-acceptor and 39.39% was acceptor. The percentage of no education was very close to each other (49.15 & 50.85) in acceptor and non-acceptor. However, the association was not significant (p-value = 0.37).

Table 17 Association between living children, living son, living daughter, additional children and acceptance or non-acceptance of family planning

Characteristics	Acceptor		Non Acceptor		χ^2	p - value
	Current user		Past and never user			
	n= 183	%	n= 207	%		
Presence of living children						
Yes	182	50.70	177	49.30		<0.001*
No	01	03.23	30	86.77		
No. of living children n= 359						
1 child	34	35.42	62	64.58		
2 children	72	56.25	56	43.75	12.27	0.007
3 children	50	56.82	38	43.18	df = 3	
4 & more	26	55.32	21	44.68		
Want additional child(ren) n= 359						
Yes	41	34.17	79	65.83	30.73	
No	135	62.50	81	37.50	df = 2	0.000
Don't know	06	26.09	17	73.91		
No. of additional child n = 120						
1 child	38	33.93	74	66.07		0.84*
2 child	03	37.50	05	62.50		

* Fisher's exact test

Table 17 showed that those who had living children among them 50.70% were acceptors and 49.30% were non-acceptors. On the other hand, those who didn't have child among them only 3.23% were acceptors and 86.77% were non-acceptors. The result showed that there was significant different exist between presence of living children and acceptance or non-acceptance of family planning (p-value = <0.001). Since, one cell has expected count more than 20%, therefore Fisher's exact test performed.

Regarding number of living children it was found that, those who had one child among them, 64.58% were non-acceptors and 35.43% were acceptors.The percentage was higher among the acceptors than that of non-acceptors when the number of children increased. Significant association also found between number of living children and acceptance or non-acceptance of family planning (p-value = 0.007).

The study also revealed that those who had desire for additional children among them 34.17% were acceptors and 65.83% were non-acceptors. Similarly, those who did not had desire for additional children among them majority (62.50%) were acceptors and the rest 37.50% were non-acceptors. The relationship between additional child and acceptance or non-acceptance of family planning was found significant (p-value <= 0.001).

Regarding number of additional child, those who had desire for 1 child, among them, 66.07% were non-acceptors and those who had desire for 2 children, among them, 66.50% were non acceptors. Among the acceptors, the percentage of number of additional children was 33.93 and 37.50 in one and two children groups respectively. However, the relationship between number of additional child and acceptance or non-acceptance of family planning was not found significant (p-value = 0.84). Since one of the cells had expected value less than 5, Fisher exact test was performed.

Table 18 Association between knowledge of the respondents with acceptance or non acceptance of family planning methods

Characteristics	Acceptor		Non Acceptor		χ^2	p - value
	Current user		Past and never user			
	n= 183	%	n= 207	%		
Knowledge						
Good (> 80%)	75	53.96	64	46.04	4.68	0.096
Fair (60-80%)	93	43.87	119	56.13	df = 2	
Poor (< 60%)	15	38.46	24	61.54		

Table 18 showed the relation between the knowledge of the respondents on family planning and acceptance or non-acceptance of family planning methods. Those who had good knowledge among them 53.96% were acceptors, but those had fair knowledge among them 56.13% were non-acceptors. Moreover, 61.54% of the non-acceptors were in the poor group. However, the relation was not found statistically significant (P-value = 0.096).

Table 19 Association between attitude of the respondents with acceptance or non acceptance of family planning

Characteristics	Acceptor		Non Acceptor		χ^2	p - value
	Current user		Past and never user			
	n= 183	%	n= 207	%		
Attitude						
Positive (≥ Mean)	107	52.71	96	47.29	5.69	0.017
					df = 1	
Negative (< Mean)	76	40.64	111	59.36		

Regarding the attitude of the respondents towards family planning, 52.71% of the acceptors had positive towards family planning, which was higher than that of non-acceptors (47.29%). Majority of the non-acceptors had negative attitude toward family planning. The association between attitude of the respondents toward family

planning and acceptance or non-acceptance of family planning methods was found significant (p-value = 0.017).

Table 20 Association between source of information and acceptance or non acceptance of family planning methods

Characteristics	Acceptor		Non Acceptor		χ^2	p - value
	Current user		Past user			
	n= 183	%	n= 142	%		
Source of information : Relative/ friend						
Yes	99	52.94	88	47.06	2.03	0.15
No	84	60.87	54	39.13	df = 1	
Health worker						
Yes	172	57.72	126	42.28	2.9	0.09
No	11	40.74	16	59.26	df = 1	
NGO worker						
Yes	54	54.00	46	46.00	0.31	0.58
No	129	57.33	96	42.67	df = 1	
Drug seller						
Yes	10	53.63	9	47.37	0.11	0.74
No	173	56.54	133	43.46	df = 1	
Radio						
Yes	41	49.40	42	50.60	2.16	
No	142	58.68	100	41.32	df = 1	0.14
Television						
Yes	54	57.45	40	42.55	0.07	0.79
No	129	55.84	102	44.16	df = 1	
Poster						
Yes	20	74.07	7	25.93	3.75	0.52
No	163	54.70	135	45.30	df = 1	
News paper						
Yes	13	65.00	7	35.00	0.66	0.42
No	170	55.74	135	44.26	df = 1	

Regarding source of information it was found that the respondents received information from various sources. Among the respondents who received information from poster, 74.07% were acceptors and who received information from newspaper, 65% were acceptors. The percentage of acceptors was higher (57.72%) than that of non-acceptors among those who received information from health workers. However, no signification association was found among the different sources of information and acceptance or non-acceptance of family planning.

Table 21 Association between place of service and acceptance or non acceptance of family planning methods

Characteristics	**Acceptor**		**Non Acceptor**		χ^2	**p - value**
	Current user		**Past user**			
	n= 183	**%**	**n= 142**	**%**		
Place of service						
Upaz. Hospital	29	93.55	2	06.45		
H&FWC	11	40.74	16	59.26	43.36	<0.001
Satellite Clinic	41	83.67	8	16.33	df = 4	
Pharmacy	8	53.33	7	46.67		
Home	94	46.31	109	53.69		

Table 21 showed that, among the respondents, who received service from hospital, 93.55% were acceptors and among who received service from satellite clinic, 83.67% were acceptors. Only 46.31% among the respondents, who received service at home, were acceptors. The association between place of service and family planning acceptance or non-acceptance was found significant (p-value <= 0.001).

Table 22 Association between distance of service center and acceptance or non acceptance of family planning methods

Characteristics	Acceptor		Non Acceptor		χ^2	p - value
	Current user		Past user			
	n= 89	%	n= 33	%		
Distance						
<3 km	67	71.28	27	28.72	0.58	0.45
≥3 km	22	78.57	6	21.43	df = 1	
Convenient						
Convenient	68	76.40	21	23.60	1.99	0.16
Not sure	21	63.64	12	36.36	df = 1	

Regarding distance of the service center, it revealed that among the respondents who received service from less than 3 km, 71.28% were acceptors and among the respondents who received service within 3-5 km, 78.57% were acceptors. However, the relation was not found significant (p-value = 0.45).

Among the respondents, who stated that going to service center was convenient, 76.40% were acceptors and among the respondents, who were not sure, about 63.64% were acceptors. However, the association was not found significant (p-value = 0.16).

Table 23 Association between mode of traveling use and acceptance or non acceptance of family planning methods

Characteristics	Acceptor		Non Acceptor		χ^2	p – value
	Current user		Past user			
	n= 89	%	n= 33	%		
Mode of traveling						
Walking	65	71.43	26	28.57	0.42	0.52
Public vehicle	24	77.42	7	22.58	df = 1	

Regarding the mode of transport used to go to the service center, it was found that among the respondents, who went to service center on foot, 71.43% were acceptors. The respondents, who used public vehicle, 77.42% of them were acceptors.

There was no significant association found between mode of traveling to service center and acceptance or non-acceptance of family planning (p-value = 0.52).

Table 24 Association between waiting time at service center and acceptance or non acceptance of family planning methods

Characteristics	Acceptor		Non Acceptor		χ^2	p – value
	Current user		Past user			
	n= 89	%	n= 33	%		
Waiting time						
< 1 hour	54	66.67	27	33.33	4.82	0.03
1 – 2 hour	35	85.37	6	14.63	df = 1	

Concerning waiting time to get service, it revealed that 66.67% of the acceptors had to wait for less than 1 hour to get service, and among the respondents who had to wait for 1-2 hour for getting service, 85.37% were acceptors. However, there was significant association between waiting time and acceptance or non-acceptance of family planning (p-value= 0.03)

CHAPTER 5
DISCUSSION

The cross section study was designed to explore the factors related to the acceptance of family planning methods among the married women of Methapukur Upazila at Rangpur district of Bangadesh. A total of 420 women of 15-49 years were interviewed by four trained interview. Out of 420 collected data, 390 were used for analysis. The rest 30 data were discarded for missing and multiple responses. There are many factors that are related to the acceptance of family planning methods, but this study focused only some selected factors such as, socio-demography, knowledge, attitude accessibility and availability.

5.1 The contraceptive prevalence rate (CPR) among the married women of reproductive age in Methapuker Upazila

The study depicted that 56.31% married women of 15-49 years were using contraceptive at the time of interview. This result is close to the result of Bangladesh Demographic and Health Survey report-2004, which was 58% (16). It also revealed that the most popularly used family planning method was oral pill (58.47%). According to the BDHS report 2004 oral pill accounts for 45% of all contraceptive use and 55% of modern methods use in the country. Studies by Banouvong V 1999 (38), Shabbir I S (67) and Vanhnolrath P (52) also found that the mostly use method was oral pill, though the percentage of use varies. The widely acceptance of oral pill in different countries by the married women may be due to its availability and easiness of use. A study of Kamalanathan JP also showed that 55% of the acceptors used pill (26).In this study, it found that the injectables was the second frequently use method (24.04%). Although the finding of BDHS also confirmed the statement, the percentage of injectables is much lower (9.7%) than present study. This may be due to the percentage of condom and male sterilization was not included in this study, so the percentage of other methods is slightly higher. The acceptance of female sterilization

was 7.11% which is also close to the national finding (5.2%). Regarding the reason for adopting family planning, many reasons such as “Poor economic condition”, “Not healthy” and “Don’t want child” were taken into account in this study. Majority (62.30%) of acceptors stated, “Don’t want child” as a reason for adopting family planning. This result is confirmed with the work of Piseth S (45), who found “Don’t want child” as a reason for accepting family planning, but the percentage is much higher (81.5%) than the present study. This lower percentage may be due to the fact that the present study found another reason besides poor economic condition and not healthy. The new reason taking in to account in this work was, “Want child late” and the percentage of this reason was 10.93. We also found that there are higher percentage of these two reasons (“Poor economic condition” and “Not healthy”) in this study than the studies of Piseth S (45) and Vanhnolrath P (52). These may be due to the fact that the nutritional status of Bangladeshi women is not up to the mark and economic condition of majority of people of Bangladesh is not good comparing to Thailand. The report of BDHS-2004 show that the mean BMI in 2004 was 20.2 and 34.3% women had BMI < 18.5 (16). Moreover, almost half (49%) of the women were suffering from anemia (Hb < 11 gm/dl) (15). So, the probability of “Not health” is more among Bangladeshi women.

Regarding the reason for not using contraceptive among the past users, it found that 60.56% stated, “Leave it to nature”. This finding is nearer to the finding of Vanhnolrath P (52), who found 68.8% of the respondents stated the same statement. About 41% of respondents wanted to have more children; this finding is also close to the finding of Vanhnolrath P (52), which was about 38%. About 39% respondents of stated, “Husband disapproves” as a reason for not using contraceptive. The finding is quite higher than the finding of Vanhnolrath P (14.7%). This difference is may be due to the difference of socio-cultural context between LAO PDR and Bangladesh. In the rural context of Bangladesh, male dominancy is a usual picture.

Concerning the reason for not using contraceptive among the never users about 37% stated, “Leave it to nature”. This finding is slightly higher than the finding of Piseth S (45), which was 41.7%. About 71% of the respondents of present study

stated, “want more children” as a reason for not using contraceptive. The finding is higher than the finding of Piseth S (45), which was 50%. The difference may be due to the fact that among the never users, about 71% belonged to the age group 15-29 years and most of them (88%) had one child (Table 25 and 26 appendix) .

5.2 Socio-demographic characteristics

The result of this study revealed that age of the married women, duration of marriage presence of living children, number of living children and desire for additional children were significantly associated with the acceptance of family planning methods. On the other hand, occupation, income, education and number of additional children were not found significant.

The findings of this study shows that majority of the non-acceptors were belonged to the age group 16-29 years, while the percentage of acceptors was 56.10 and 51.02 in the age group 30-39 years and 40-49 years respectively. Therefore, we can conclude from this finding that young age group is less likely to practice family planning than that of elder age group. Lower level of use among the younger women is usually attributed to their desire to have children. Similar result on relationship between age of the married women and family planning practice was found in the study of Vanhnolrath P (52) and the relation was statistically significant.

Duration of marriage play an important role in the acceptance of family planning. The age, at which women marry, is a major factor for population growth. Late marriage permits women to achieve more education, to train for useful career, to earn money and to contribute in a more meaningful way to family, community and nation. The result of the study revealed that 57.48% of the acceptors had duration of marriage greater than or equal 16 years. In contrast, 75.58% of non-acceptors had duration of marriage 1-5 years and the association between duration of marriage and family planning acceptance was statistically significant. This finding was similar to the result from Banouvong V (38), who concluded that the longer the duration of marriage, the higher the use of contraceptive.

Regarding the occupation it found that in the business group, majority (66.67%) was practicing family planning; on the other hand in the laborer group 73.91% was non-acceptor. In the house wife and service group, the percentage of non-acceptors was higher than the acceptor groups. However, the relation between occupation and acceptance or non acceptance of family planning did not find significant. The percentage of house wives was 86.41, which was much higher than the study of Vanhnolrath P (46.6%) and Piseth S (35.3%). The difference in the percentage of occupation may be due to difference in socio-cultural context. In Bangladesh especially in the rural areas, the women usually take care of family, except those who are very poor, and those are educated. However, Vanhnolrath P and Piseth S also did not find any significant association. It should be mentioned here that Nhan TD(46), Win H (37) and Banouvong V (38) found significant association in their studies.

In the previous studies, husband occupation was not included, but occupation of the husband was included in the present study and found that 41.28% were farmer; which was highest among others. However, there was no significant association found between occupation of husband and family planning acceptance or non-acceptance.

Regarding monthly family income, it found that equal number of acceptors and non-acceptors were belonged to the income group BDT.2000-4999 and in the income group BDT. 8000-9999, majority (61.54%) were acceptors. There was no significant association found between income and family planning acceptance or non-acceptance. It should be mentioned that Vanhnolrath P (52) also did not find any significant association between monthly income and family planning practice.

Concerning education of the respondents, it found that majority of the respondents had no education (30.26%) and primary education (37.18%). Among the respondents of secondary education group, there were 61% non-acceptors. However, the association between education status of the respondents and acceptance or non-acceptance of family planning was not significant. Nhan TD (46), Win H (37), Vanhnolrath P (52) and Banouvong V (38) found significant association, except

Piseth S (44); who found the negative association like the present study. Islam SM et at found that total effects of wife's education on fertility were found to be negative (68).

Regarding the presence of living children, the study revealed that 50.70% of acceptors belonged to the group, having living children. In contrast, 86.77% of non-acceptors belonged to the group, having no child. The relationship between presence of living children and family planning acceptance was significant. It can conclude from the finding of this study that majority of the non-acceptors don't practice family planning as they want children.

Not only the presence of living children, but also the number of living children is an important factor for acceptance of family planning. The result of this study showed that among those who had 1 child, 64.58% was non-acceptors and the percentage of acceptors increased among those who had two or more children. Laing JE (39) revealed that a woman who had several children was likely to be more motivated to continue contraception and practice contraceptive more effectively than a woman who had relatively fewer children. According to Bangladesh Demographic and Health Survey (BDHS-2004), almost half of the women initiated family planning use before they had two children. The present study found that only 35.42% of respondents who were practicing family planning currently had 1 child. The difference in finding may be due to the fact that in the present study, the opinion of those women who had no child was excluded. However, significant association was found between number of living children and acceptance of family planning. Nhan TD (46), Win H (37), and Vanhnolrath P (52) also found significant association between number of living children and acceptance of family planning. Akhter HH and Ahmed S (42) also found that the previous death of children, number of living children, desire for additional children and son preference were important determinants of contraceptive continuation.

Regarding desire for additional children, it showed that the respondents, who opined to have additional children in future among them, 34.17% were acceptors. In

contrast, the respondents who said," Don't know" regarding the need of additional children in future among them, majority were non-acceptors. The relationship between desire for additional children and acceptance or non-acceptance of family planning was statistically significant (p-value≤ 0.001). The desire to stop childbearing increased with the number of living children, reaching 67% among women with two living children and 86% among those with 6 or more children. Among women who wanted to have another child, the reverse was observed; that is the proportion of women who wanted to have another child decreased with the number of living child (BDHS -2004). In Nhan DT (46) study, it found that 28.4% of the respondents had desire to have additional children, which is close to the finding of the present study (33.43%) and the relationship between desire of additional children and family planning was also significant. Vanhnolrath P (52) work also present significant association (p-value = 0.008) between desire for additional children and acceptance of family planning.

Concerning the number of additional children, the study explored that among the respondents who opined to have one additional child, 66.07% were non-acceptors and those were in favor of two children, 62.50% of them were acceptors. However, the association between number of additional children and acceptance of family planning was not found statistically significant. It should be mentioned here that so for literature was reviewed among those none of the studies explored for number of additional children.

5.3 Knowledge of married women on family planning

Concerning the knowledge of the married women on family planning, it found that 47.44% knew about the all modern methods of family planning and most of the respondent knew about the method of family planning. A study titled," Bangladesh: modern methods are well known but not widely used" found a high level of knowledge about modern contraception, with nearly 95% of the women able to identify at least on modern method (94% mentioned oral contraceptives, 65% IUDs, 76% condoms, 64% injectables, 89% female sterilization, and 74% male sterilization)

(57). This finding is lower than the finding of present study and the reason for the difference in findings may be due to the fact that the study was conducted long before (1988).

Regarding the level of knowledge, the result from this study found that 35.64% had good knowledge. The study of Vanhnolrath P (52) found that 34.3% respondents had good knowledge. Therefore, the finding of Vanhnolrath P is very close to the finding of this study. Moreover, the present study revealed that 54.36% had fair and 10% had poor knowledge. The result from the work of Nhan DT (46) showed that the percentage of fair and poor knowledge was 48.8 and 32.8 respectively. The higher percentage of fair knowledge and lower percentage of poor knowledge of the present study than that of Nhan DT study may be due to effect of domiciliary visit of the family planning workers in Bangladesh. The family welfare assistants are supposed to visit each house once in a month under her jurisdiction. It also found that among the respondents, who had good knowledge of them 53.96% were acceptors and among the respondents who had poor knowledge, 61.54% were non-acceptors. The association between knowledge and acceptance of family planning was not significant. Piseth S (45) did not find any significant difference as present study.

5.4 Attitude of the married women towards family planning

Considering the investigation of married women attitude, it revealed that about 52% respondents had positive attitude and nearly 48% had negative attitude. The finding is similar to the finding of Nhan DT (46), who found that 51.9% had positive attitude and 48.1% had negative attitude. The result also showed that among the respondents who had positive attitude, 52.71% were acceptors and among the respondents who had negative attitude, 59.63% were acceptors. The difference was statistically significant (p-value = 0.017). Nhan DT was found significant association between attitude of married women toward family planning and acceptance of family planning.

5.5 Accessibility, availability and source of knowledge of contraceptive services among married women

To explore the accessibility and availability of contraceptive service, questions were asked regarding place, distance, convenience, mode of traveling, waiting time and source of knowledge about the methods. It found that 100% of the respondents knew the place of service. The reason for such a high level of knowledge about the place of service may be due to the face that Bangladesh has an extensive network of service delivery up to the grass root level. At government level, one health and one family planning works are posted at ward level, which is the lowest administrative unit at the village level. Inspite of a good network and sufficient health and family planning work in the field, the knowledge and practice of the married women regarding family planning are not up to the mark. Janowitz B *et al* explored the reason. They found that poorer quality of care services and the reported visits of the field-workers often did not involve discussions on family planning methods. The results also indicated that field-workers were not doing a good job in motivating women to adopt contraceptive use (69). It should be mentioned here that Piseth S (45) also found that 100% married knew the place of service delivery.

Concerning the main source of service, this result showed that majority (62.46%) of the women received service at home. However, Piseth S (45) found a different result. His result presented that the main source of service was community hospital (65.4%). The difference in the source of service may be due to the difference in service delivery system, and in Bangladesh, the government family planning workers provide domiciliary service. The Family Welfare Assistant (FWA) has to visit the houses under her jurisdiction once in a month. Consequently, the percentage of receiving service at home is high. Kamal N *et al* (70) stated that the increase in Bangladesh's contraceptive prevalence rate since 1978 had placed the country in the third stage of fertility transition and was largely due to the efforts of the female, grassroots family planning workers known as family welfare assistants (FWAs). Logistic regression analysis on socioeconomic and demographic factors revealed that the most significant determinant of use in a rural area was a visit by an FWA within

the past 3 months. After a FWA visit, odds of use in rural women increased eight times. It should be mentioned here that those who received service from Upazila hospital and satellite clinic among them the percentage of acceptors was 93.55 and 83.67 respectively. In contrast, among those who received service from H&FWC and at home, the percentage of past users was 59.63 & 53.69 respectively. However, the association was statistically significant. Studies by Nhan DT (46), Piseth S (45), Vanhnolrath P (52) and Banouvong V 1999 (38) also found significant association between place of service and acceptance of family planning.

Concerning the distance from residence to contraceptive service center, it found that 77.05% of the respondents reside less than 3 km from the service center. This find is closer to the finding of Piseth S (45), who found 71.1% respondents of his study population reside within 1-2 km from the service center, and the association was statistically significant. Thang MN (63) found that ready access to any source of family planning significantly reduce non-use of modern methods (odds ratio, 0.6) and current user of traditional methods (0.6). Sadiqa N (50) concluded that over 95% people in developing world live in countries that directly support family planning programme. The average distance that women must travel to their nearest clinic providing family planning services varies greatly, ranging from one kilometer in Egypt to 19 kilometer in Uganda. However, this study did not find any significant association between distance from the residence to service center and acceptance of family planning.

In terms of convenience for going to the service center, it found that 72.95% of respondents opined that it was convenience to go to service center. The study of Vanhnolrath P (52) found that 89.1% opined that it was convenience to go to service center. However, the finding of the present study was not statistically significant.

Regarding mode of traveling to service center, it found that 77.05% of respondents went to service center by walking. This finding is higher than the finding of Vanhnolrath P (52), who found that 57.9% of respondents went to service center by walking. The difference may be due to the fact that in the rural area of Bangladesh

transportation is not good. Moreover, poor economic condition of the rural people compelled them to walk. However, the association was not found significant.

Waiting time is an important factor for acceptance of family planning. The result showed that 86.6% of the respondents had to wait for less than 1 hour for getting service. Win H (37) presented that about 98% respondents had to wait for 1 hour or less to get service. The finding of Win H is higher than the finding of present study. It may be due to the fact that the tradition of the people in rural area is to wake up early in the morning. The men go to field to cultivate or to do other works. The women, who need medical or family planning services, start early for service, so in the opining hour there is rush in the service center, which cause delay in getting service. However, both studies found significant association between waiting time and acceptance of family planning.

With regard to the source of information about contraceptive, it found that the main source of information was health personnel (91.69%). This finding is higher than the findings of Piseth S (45), which was 70.2%. The data of the present study were collected by the FWA, so there might be some sort of bias, which caused the high percentage. However, the percentage of television and leaflet was close to the finding of Piseth S. Even so, none of the finding related to the source of information did not find statistically significant.

CHAPTER 6
CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Population growth is now a global concern and one of the most serious problems in the world, especially in the developing and least developed countries. The situation is really alarming, especially for the least developed countries like Bangladesh. Though Family Planning Program has made substantial improvement in acceptance of family planning methods, but still the progress is not worthy. So, an attempt was made to explore the factors related to the acceptance of Family planning methods among the married women of a rural community of Bangladesh.

This study has highlighted some of the factors related to the acceptance of family planning methods in rural Bangladesh. In particular, it has shown how the socioeconomic characteristics of the sampled married women relate to the acceptance of family planning methods. The results indicate that 56.31% women currently practicing family planning, and the finding is consistent with the nation finding (16). It also revealed that among the younger age group and shorter duration of marriage, the percentage of non-acceptors were high. Education, occupation and income had no significant association with the practice of family planning. Long term and permanent methods had limited use. The main reason for acceptance of family planning was," Don't want child". On the other hand, majority (60.56%) of the non-acceptor believed to leave it to nature as a reason for not using contraceptive, which reflected the poor attitude of the non-acceptors. Among the respondents, who had poor knowledge and negative attitude, the percentage of non-acceptors was higher. Presence of living child, number of living children and desire for additional children had significant association with the acceptance of family planning method. The study revealed that there was significant association between place of service and waiting time with acceptance of family planning. However, no significant association found with regard to distance, convenient to go to service center and mode of traveling. Effective

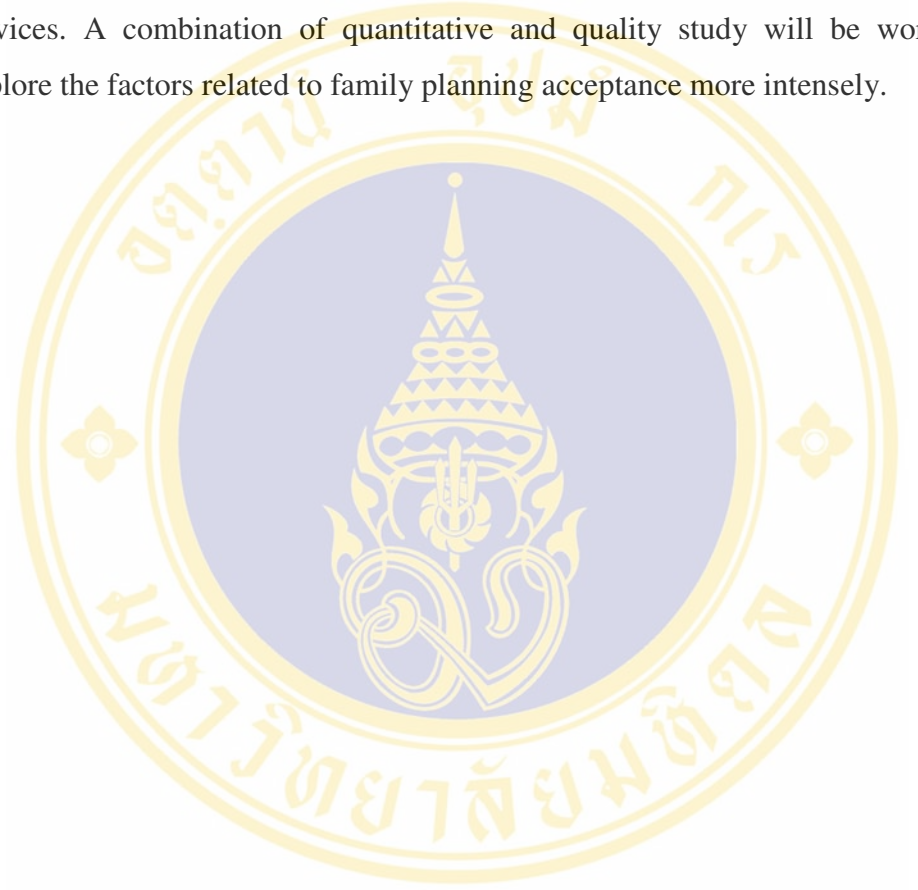
counseling and involvement of mass media will encourage the acceptance of family planning.

6.2 Recommendation

On the basis of the findings of this study the following recommendations can be made:

1. According the result of the study 56.31% of the women were using contraceptive at the time of interview. In the age group 15-29 years, about 63% were non-acceptors, so majority of women in the age group 15-29 years need to motivate for using contraceptive.
2. Special attention should be given to motivate the non-acceptors because the women, who had 3 children and the women who had 4 children, in both groups nearly half of the respondents were non-acceptors.
3. Finding of this study also showed that 60.56% of the past users stated that they did not use contraceptive because they leave it to nature and 30.77% did not use it because their husband disproved. So, efforts should be taken to gear up counseling to the past users.
4. Strategy should be taken to increase the use of long term and permanent methods because the result showed that use of long term and permanent methods such as IUD, Norplant and tubectomy were low.
5. Use of audio-visual media containing drama, serials and discussion on family planning should be exhibited at the health centers to encourage family planning acceptance.
6. It also found that majority of the respondents received services from public providers, and health personnel act as a potential source of information for contraceptive service. Inspite of the extensive network and sufficient number of health and family planning workers, the percentage of current users was 56.31%. So, there is ineffective communication exists between consumer and provider. To increase the acceptance of family planning and to reduce the gap between consumer and service providers communication and counseling skill of the works need to be increased.

7. There are several factors related to the acceptance of family planning, this study focused only some selected factors, other factors like husband support and participation, provider attitude, quality of services, scope of decision making etc should be explore in future study. Moreover, in-depth study should be conducted to explore the role of husband, mother-in-law as well as the quality of family planning services. A combination of quantitative and quality study will be worthwhile to explore the factors related to family planning acceptance more intensely.



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APPENDIX

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APPENDIX A

QUESTIONNAIRES

FACTORS RELATED TO THE ACCEPTANCE OF FAMILY PLANNING METHODS AMONG THE MARRIED WOMEN OF REPRODUCTIVE AGE IN METHAPUKUR UPAZILA, RANGPUR DISTRICT, BANGLADESH

House number.

Starting time: Ending time Total Duration:

Please inform married women that this questionnaire is for research purpose and all her answers will be kept completely confidential and not exposed to other purpose.

Part -1 Socio-demographic characteristics

Please fill in the blank or check (√) in the appropriate box to answers the question:

1. How old are you ? …….. years
2. How long have you been married?..... years
3. What is your main occupation?

   □ 1. House wife
   □ 2. Service
   □ 3. Business
   □ 4. Farmer
   □ 5. Laborer
   □ 6. Others (Please specify ……..)

4. What is the occupation of your husband?

   □ 1. Service
   □ 2. Business
   □ 3. Farmer
   □ 4. Laborer
   □ 5. Others (Please specify ……..)

5. How much is your total income monthly from all sources? ……. Tk.

6. What is your educational level?

   □ 1, No education
   □ 2. Primary school
   □ 3. Secondary school
   □ 4. Higher secondary and degree

7. Do you have any living child?

   □ 1, Yes
   □ 2. No (Skip to question no.12)

8. How many living children do you have? …….. children

9. How many sons and daughters do you have? …….

1. Sons(s)……
2. Daughter(s) ……..

10. Do you want to have any more children in the future?

    □ 1. Yes
    □ 2. No (skip to Q 12)
    □ 3. Don't know (skip to Q12)

11. How many sons and daughters that you want to have more ……?

    □ 1. Son ……..
    □ 2. Daughter…….

12. How many children do you think a family should have ……..

Part II: Knowledge of Married Women of Reproductive Age (MWRA) on family planning

Please check (√) in the appropriate box to mark the correct answer of the question:

13. What is family planning?
    □ 1. Child spacing and choosing the number of children
    □ 2. Birth control
    □ 3. Having only one child
    □ 4. Way to avoid abortion
    □ 5. Others (specify……..)

14. What family planning methods do you know?(Can answer more than one)
    a. Pill □ Yes □ No
    b. Condom □ Yes □ No
    c. IUD □ Yes □ No
    d. Tubectomy □ Yes □ No
    e. Vasectomy □ Yes □ No
    f. Injection □ Yes □ No
    g. Norplant
    h. Others (Please specify ……)

For the following statements please specify whether you think it is true or false statements, if you are not sure or do not know, please check column don't know.

Sl. No	Statement	True	False	Don't know
15.	Women should take oral pills everyday to avoid pregnancy			
16.	Oral pill can cause dizziness and nausea			
17.	IUD is a method used for pregnancy prevention in women only			
18.	Women can have bleeding by using IUD			
19.	Injection can prevent pregnancy for several months			
20.	Vomiting is a side-effect of contraceptive injection			
21.	Breast feeding is a method to control birth spacing			
22.	Women can have children again after they stop to take pill or injection			
23.	Women can have children again after they remove tubectomy			
24.	Injection causes cessation of breast milk			
25.	One of the reasons of cervical cancer is having IUD more than 3 years			
26.	Oral pill gives more chance to have cervical cancer			

Part III. Attitude of MWRA towards the practice of family planning

Please check (√) in the appropriate box to mark the correct answer of the question:

SA = Strongly agree

A = Agree

UN = Undecided

D = Disagree

SD = Strongly disagree

Sl. No	Statement Do you think:	SA	A	UD	D	SD
27	Contraceptive use can help a couple to determine the number of children					
28	Family planning is good for mother's health					
29	Family planning is not good for children's health					
30	Family planning should not be taught before getting married					
31	Family planning should be taught in junior high school					
32	Discussion on use of contraceptive is not ashamed among the couples					
33	The couples, who are practicing FP can have sex freely					
34	Oral contraceptive can be use safely to avoid pregnancy					
35	Family planning is restricted in your custom or community					
36	IUD method disturbs sexual intercourse					
37	Women can not work hard after having tubectomy					
38	Most contraceptive methods have more benefit then their side-effect					

Part IV. Practice about contraception

Please check (√) in the appropriate box to mark the correct answer of the question:

39. Have you ever use any contraceptive method?

□ 1. Yes

□ 2. No (skip to question Q.55)

40. Are you currently using contraceptive methods?

□ 1. Yes
□ 2. No (Skip to question 43)

41. which contraceptive method are you using now?

□ 1. Condom
□ 2. IUD
□ 3. Pills
□ 4. Injection
□ 5. Tubectomy
□ 6. Norplant
□ 7. Withdrawal
□ 8. Safe period
□ 9. Other (please specify……)

42. Why did you use it?

□ 1. Don't want baby
□ 2. Health not good
□ 3. Poor economic
□ 4. Other (Please specify…….)

(Note: Please skip to the question 44, when you finished asking above questions)

43. Why don't you use contraceptive method?
(Answer as many as)

□ 1. Leave it to nature
□ 2. Husband disapproves
□ 3. Husband use contraceptive (specify…….)
□ 4. Fear of side-effect
□ 5. Want more children
□ 6. Don't know where service given
□ 7. Not safe
□ 8. Not convenient
□ 9. Other (please specify……)

Part V. Availability and accessibility to services

Please check (√) in the appropriate box to mark the correct answer of the question:

(Ask Q.44 only those women who used contraceptive at time of interview or if the answer of question 39 is "Yes").

44. Which sources do you get information about contraceptives (can answer more than one)

□ 1. Relatives/ Friends
□ 2. Health personal (FWA/HA/FWV/Doctor/ Nurse)
□ 3. NGO workers
□ 4. Drug seller
□ 5. Radio
□ 6. Television
□ 7. Leaflets, poster
□ 8. News paper
□ 9. others please specify ……

45. Do you know where to get contraceptive service?

□ 1. Yes
□ 2. No

(Note: If answer of question 45 is "No" then stop your interview, and please say "thank you" to interviewee for their kind cooperation)

46. Where do you get contraceptive method mainly?

□ 1. District hospital
□ 2. Upazila hospital
□ 3. H&FWC
□ 4. Satellite
□ 5. Pharmacy
□ 6. At home
□ 7. Other (please specify……..)

[If the answer of Q.46 is No.6(At home) then ask Q. 47, otherwise skip to Q.48]

47. Who give contraceptive at home?
□ 1. FWA
□ 2. NGO worker
□ 3. others (please specify)……..

(Note: stop your interview, and please say “thank you” to interviewee for their kind cooperation)

48. How far is your residence from the place to receive contraceptive service?

□ 1. <3 km
□ 2. 3-5 km
□ 3. >5 km

49. Do you think that going to contraceptive service convenient?

□ 1. Convenient
□ 2. Not sure
□ 3. Inconvenient

50. How do you go to the service center?
□ 1. Walking
□ 2. Public vehicle
□ 3 Private vehicle
□ 4. Other (please specify……..)

51. How long do you wait before receiving contraceptive service?

□ 1. < 1 hour
□ 2. 1-2 hour (s)
□ 3. > 2 hours

52. Do you pay for contraceptive service?

□ 1. Yes (ask for next question)
□ 2. No (if 'No' stop your interview, and please say "thank you" to interviewee for their kind cooperation)

53. (If "Yes" from the question 52) how much do you pay? …… Tk.

54. Is it expensive or not for contraceptive service?

□ 1. Expensive
□ 2. Not expensive

(Note: stop your interview, and please say "thank you" to interviewee for their kind cooperation)
(These following questions will be asked for those who answered "No" in question 39)

55. Why don't you use contraceptive method?
(Answer as many as)

□ 1. Leave it to nature
□ 2. Husband disapproves
□ 3. Husband use contraceptive (specify……)
□ 4. Fear of side-effect
□ 5. Want more baby
□ 6. Don't know where service given
□ 7. Not safe
□ 8. Not convenient
□ 9. Other (please specify……)

56. If you intend to practice contraceptive in the future, from where would you like to get contraceptive?

□ 1. District hospital
□ 2. Upazila Health complex
□ 3. H&FWC
□ 4. Satellite Clinic
□ 5. Pharmacy
□ 6. At home
□ 7. Other (please specify……)

(If answer is 1,2,3,4,5 & 7 then ask Q 57. If answer is 6 stop your interview, and please say "thank you" to interviewee for their kind cooperation)

57. How far is your residence from the place to receive contraceptive service?

□ 1. <3 km
□ 2. 3-5 km
□ 3. >5 km

58. Do you think that going to contraceptive service convenient?

□ 1. Convenient
□ 2. Not sure
□ 3. Inconvenient

59. How do you go to the service center?

□ 1. Walking
□ 2. Public vehicle
□ 3 Private vehicle
□ 4. Other (please specify……..)

Please say “thank you” to interviewee for their kind cooperation

Name of the Interviewer:

Signature of the interviewer:

Date:

APPENDIX B

Table 25 Distribution of the never acceptor by age

Characteristics	Frequency n = 65	Percentage (%)
Age groups (years)		
15-29	46	70.77
30-39	17	26.15
40-49	2	3.08
Mean = 25.31	SD = 7.04 Min = 17	Max = 45

Table 26 Distribution of the number of living children of the non-acceptor by age

Characteristics n=41	No. of living Children							
	1child		2 children		3 children		4 children	
	No.	%	No.	%	No	%	No	%
15-29	22	88	2	8	1	4	0	0
30-39	2	14.29	6	42.86	6	42.86	0	0
39-49	0	0	0	0	1	50	1	50
P-value <0.05*								

* Fisher's exact

Table 27 Association between Age of the respondents and knowledge of family planning

Characteristics n=390	Good		Fair		Poor		χ^2	P-value
	No.	%	No.	%	No.	%		
15-29	67	37.85	94	53.11	16	9.04	1.75	0.78
30-39	58	35.37	88	53.66	18	10.98	df = 4	
40-49	14	28.57	30	61.22	5	10.20		

Table 28 Association between age of the respondents and attitude toward family planning

Characteristics n=390	Positive attitude		Negative Attitude		χ^2	P-value
	No.	%	No.	%		
15-29	104	58.76	73	41.24	12.26	0.002
30-39	84	51.22	80	48.78	df =	
40-49	15	30.61	34	69.39		

Table 29 Association between women's occupation and knowledge of family planning

Characteristics n=390	Good		Fair		Poor		χ^2	P-value
	No.	%	No.	%	No.	%		
House wives	114	33.83	193	57.27	30	8.90		0.07*
Service	19	90.48	2	9.52	0	0		
Business	6	66.67	3	33.33	0	0		
Laborer	0	0	14	60.87	9	39.13		

* Fisher's exact

Table 30 Association between women occupation and attitude toward family planning

Characteristics n=390	Positive attitude		Negative Attitude		χ^2	P-value
	No.	%	No.	%		
House wives	171	50.74	166	49.26		0.22*
Service	20	95.24	1	4.76		
Business	9	100.00	0	0		
Laborer	3	13.04	20	86.96		

* Fisher's exact

Table 31 Association between income and knowledge of family planning

Characteristics n=390	Good		Fair		Poor		χ^2	P-value
	No.	%	No.	%	No.	%		
2000-4999 Tk.	50	21.74	152	66.09	28	12.17		0.000*
5000-7999 Tk.	45	42.06	51	47.66	11	10.28		
8000-9999 Tk	20	76.92	6	23.08	0	0		
≥10000 Tk,	24	88.89	3	11.11	0	0		

* Fisher's exact

Table 32 Association between income and attitude toward family planning

Characteristics n=390	Positive attitude		Negative Attitude		χ^2	P-value
	No.	%	No.	%		
2000-4999 Tk.	88	38.26	142	61.74	50.97	0.000
5000-7999 Tk.	70	65.42	37	34.58	df = 3	
8000-9999 Tk	19	73.08	7	26.92		
≥10000 Tk.	26	96.30	1	3.70		

Table 33 Association between education and knowledge of family planning

Characteristics n=390	Good		Fair		Poor		χ^2	P-value
	No.	%	No.	%	No.	%		
No education	18	15.25	81	68.64	19	16.10	132.23	0.000
Primary	27	18.62	99	68.28	19	13.10		
Secondary	67	67.68	31	31.31	1	1.01	df = 6	
Higher secondary and above	27	96.43	1	3.57	0	0		

Table 34 Association between education and attitude toward family planning

Characteristics n=390	Positive attitude		Negative Attitude		χ^2	P-value
	No.	%	No.	%		
No education	29	24.58	89	75.42	105.86	0.000
Primary	63	43.45	82	56.55	df = 3	
Secondary	83	83.84	16	16.66		
Higher secondary and above	28	100.00	0	0		

Table 35 Association between husband's occupation and knowledge of family planning

Characteristics n=390	Good		Fair		Poor		χ^2	P-value
	No.	%	No.	%	No.	%		
Service	27	71.05	10	26.32	1	2.63	76.45	0.000
Business	54	61.36	32	36.36	2	2.27	df = 6	
Farmer	44	27.33	99	61.49	18	11.18		
Laborer	14	13.59	71	68.93	18	17.48		

Table 36 Association between husband's occupation and attitude toward family planning

Characteristics n=390	Positive attitude		Negative Attitude		χ^2	P-value
	No.	%	No.	%		
Service	30	78.95	8	21.05	61.36	0.000
Business	61	69.32	27	30.68	df = 3	
Farmer	90	55.90	71	44.10		
Laborer	22	21.36	81	78.64		

Table 37 Association between duration of marriage and knowledge of family planning

Characteristics n=390	Good		Fair		Poor		χ^2	P-value
	No.	%	No.	%	No.	%		
1-5	38	44.19	43	50	5	5.81	8.52	0.20
6-10	32	35.16	48	52.75	11	12.09	df = 6	
11-15	24	27.91	49	56.98	13	15.12		
≥16	45	35.43	72	56.69	10	7.87		

Table 38 Association between duration of marriage and attitude toward family planning

Characteristics n=390	Positive attitude		Negative Attitude		χ^2	P-value
	No.	%	No.	%		
1-5	48	55.81	38	44.19	6.42	0.09
6-10	56	61.54	35	38.46	df = 3	
11-15	40	46.51	46	53.49		
≥16	59	46.56	68	53.54		

Table 39 Association between number of additional children and age groups

Characteristics n=120	1 additional child		2 additional children		χ^2	P-value
	No.	%	No.	%		
15-29	86	93.48	6	6.52	0.013	0.91
30-39	26	92.86	2	7.14		

Table 40 Association between Number of living children and desire for additional children

Characteristics No. of living children	Desire for additional children n=120				χ^2	P-value
	1 child		2 children			
	No.	%	No.	%		
1	79	92.94	6	7.06		
2	24	92.31	2	7.69		
3	9	100.00	0	0		0.79*
4	0	0	0	0		
5	0	0	0	0		
6	0	0	0	0		
7	0	0	0	0		

* Fisher's exact

BIOGRAPHY

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