Asian Journal of Research in Social Sciences and Humanities
ISSN: 2249-7315 Vol. 13, Issue 3, March 2023 SJIF 2022 = 8.625
A peer reviewed journal

IMPACT OF SOCIO-CULTURAL FACTORS ON CONTRACEPTION USES AND ADAPTATION OF FAMILY PLANNING AMONG THE MUSLIM WOMEN: A CASE OF RAJARHAT BLOCK, NORTH 24 PARGANA DISTRICT, WEST BENGAL

MST Tania Parveen*; Dr. Sushma Rohatgi (Retd.)**

*Research Scholar (UGC, JRF),
Department of Geography and Applied Geography,
University of North Bengal, Darjiling, INDIA
Email id: msttaniaparveen@gmail.com

*Professor,
Department of Geography and Applied Geography,
University of North Bengal, Darjiling, INDIA
Email id: rohatgisushma@gmail.com; msttaniaparveen@gmail.com

DOI: 10.5958/2249-7315.2023.00004.7

ABSTRACT

This study emphasizes the factors which influence the uses of contraception and acceptance of the family planning among the muslim women in Rajharhatblock, Northtwenty-four pargana district West Bengal, India. The whole data have been collected through the primary and secondary sources. The Primary data obtained from the 407 muslim ever married women, married women ever child and window women ever child. Chi-square test and Bi-varriate analysis show that the most influence factors are influence of son which restricted the uses of contraception as well as level of education of women has a positive relation with the uses of contraception.

KEYWORDS: *Acceptance,Contraception uses, Family Planning, Fertility, Muslim Women.*

1.INTRODUCTION

Society's one of the fundamental units is the family. Every family is a social organization, and each one has its own traditions, norms, and basic roles (Huber et al., 2010).The phrase "family panning" was only used to describe this timeless phenomenon when sociologists, healthcare professionals, and governments started to genuinely worry about the societal implications of abandoned newborns, a possible link to illicit abortion, and the issue of outsized impoverished families (Ledbetter, 1984).The family planning program was started in India as a national population policy in 1952 to manage population increase and relieve poverty (Akın, 2018).Family planning is integrated to the health services, its mostly emphasizes on the rural area and those who are belongs to the back warded (Apay et al.,2010). It's trying to convinced people about the child norms, insist people to adopting terminal methods to create a gap between the birth of 2 children (Dharmalingam, 1995). Beside this its initiated to conducted door-to-door awareness to persuade families to adhere to the modest family norm promoting breastfeeding, encouraging both boys' and girls' education (Bongaarts et al, 1990).Around the world, 76% of women in the reproductive age range have their family planning requirements fulfilled by a contemporary form of contraception (Dal et al., 2021). The National Family and Health Survey 4

(2015–16) represent that 53.5% of married women in India used some kind of contraception.The Indian government is tenacious in its attempts to reduce reproduction and supports family planning by providing free contraception through local health facilities and financial incentives for sterilization (Thulaseedharan, 2018). Despite reports that modern contraception use is increasing in rural India, but the statistics for contraceptive use are still very low. This research work focusses on the adaptation behaviour of family planning among the rural women and their barriers. In most of the cases the qualities of the person, the resources of the family, sociocultural mores and institutions that influence autonomy, behaviour and lifestyle. Beside this the access to health care services are all known to have an impact on contraceptive usage.These factors are intricately connected. Women's status, for instance, has been connected to their usage of contraception and thus, their fertility.Unfortunately, acceptance and knowledge are not mutually exclusive. The task of family planning has made enormous strides over the past few decades, but it is still not complete. Worldwide, more than 120 million women wish to avoid getting pregnant, yet neither they or not their partners use contraception (Saxena et al., 2003). The government also provide several family planning programs to encourage the people but the success rate of those program yet not satisfactory as there are several obstacles to accept that due to their own concept, religious conservativeness, lack of education, poverty etc.

Beside this the other reasonswhich are misconceptions, incomplete or inaccurate information from friends and family, and the subsequent development of fear regarding contraception uses also decline the rate of contraception use.

1.1. Background of the study:

According to *Lasee & Becker(1997*), a smaller number of couples in Africa employ either a contemporary or traditional form of family planning, as because their socio-economic factors which create several resistances to adopt it. In order to enhance both the amount of active male engagement in family planning and accepted usage of suitable technologies, there are undoubtedly several safeguards at the individual, communal, institutional, and policy levels.According to a research conducted in Kenya by *Biddlecom&Fapohunda (1998*). Men only provided sporadic support for family planning because they thought that using contraceptives had a negative impact on women's libido.*Angeles et al., (1998)* found a substantial correlation between social and cultural characteristics, local religious beliefs, gender roles, and social networks and the decision-making of couples about family planning.*Laxmi et al., (2003*) stated that sterilisations account for 63% of contraceptive use in India, but importantly, women make up 97.7% of the nation's total number of sterilisations. She further stated that Indian women, particularly those from the poorer sections, have consistently been subjected to a population reduction program, sometimes cloaked in euphemisms like reproductive health.*Saxena et al., (2003)* noted that a total of 55.2% of subjects were aware of contraceptive techniques made accessible to everybody in India. The majority of women had a positive attitude toward family planning, but awareness of adopting long-acting new techniques is still low and has to be increased. Nearly 50% of individuals knew about permanent methods, but acceptance was very low, at just 5%.*Jesha et al., (2016*) found that adoption of the terminal approach was significantly more common than the acceptance of spacing methods in the Municipal Corporation of Kerala.However, condoms and vasectomy were found to be stigmatized, and family planning was seen as being the duty of women, According to *Lee (2005),* women were observed to be unaware of "Emergency contraception." More young women and women who were nulliparous were aware of emergency contraception.*Khan (2017)* conducted semi-structured interviews in the villages India. To study rural women's attitudes about family

planning. Despite being uneducated, the majority of rural women desire to have only two to three children.

Thus in overall view of the literature study it has been found that even though access to and availability of contraceptive options has increased, a sizable number of pregnancies also increased .According to many studies done among women, some of the reasons why they don't use special methods include belief, fear of secondary sterility, lack of decision-making autonomy, opposition from family members, a negative attitude toward family planning in some communities, perceived health risks, and a bad experience with service providers.

1.2. Study Area

The study conducted in North 24 Parganas district of southern West Bengal, of eastern India. North 24 Parganas extends in the tropical zone from latitude 22° 11′ 6″ north to 23° 15′ 2″ north and longitude 88º20' east to 89º5' east. West Bengal's most populous district and also it is one of the most populated districts among the whole of India. It is the tenth-largest district in the State by area. There are 35 police stations, 22 development blocks, 27 municipalities, 200-gram panchayats and 1599 villages in this district. The study area is based on the Rajharhat block which is under this district. This block has 31 villages and 9 census town among the 13 villages and seven census town have been selected for the study. According to the census of 2011, this district has a relatively high proportion of Muslims who marry women before the age of 18, with estimates ranging from 52.12 to 65.23 across all blocks.

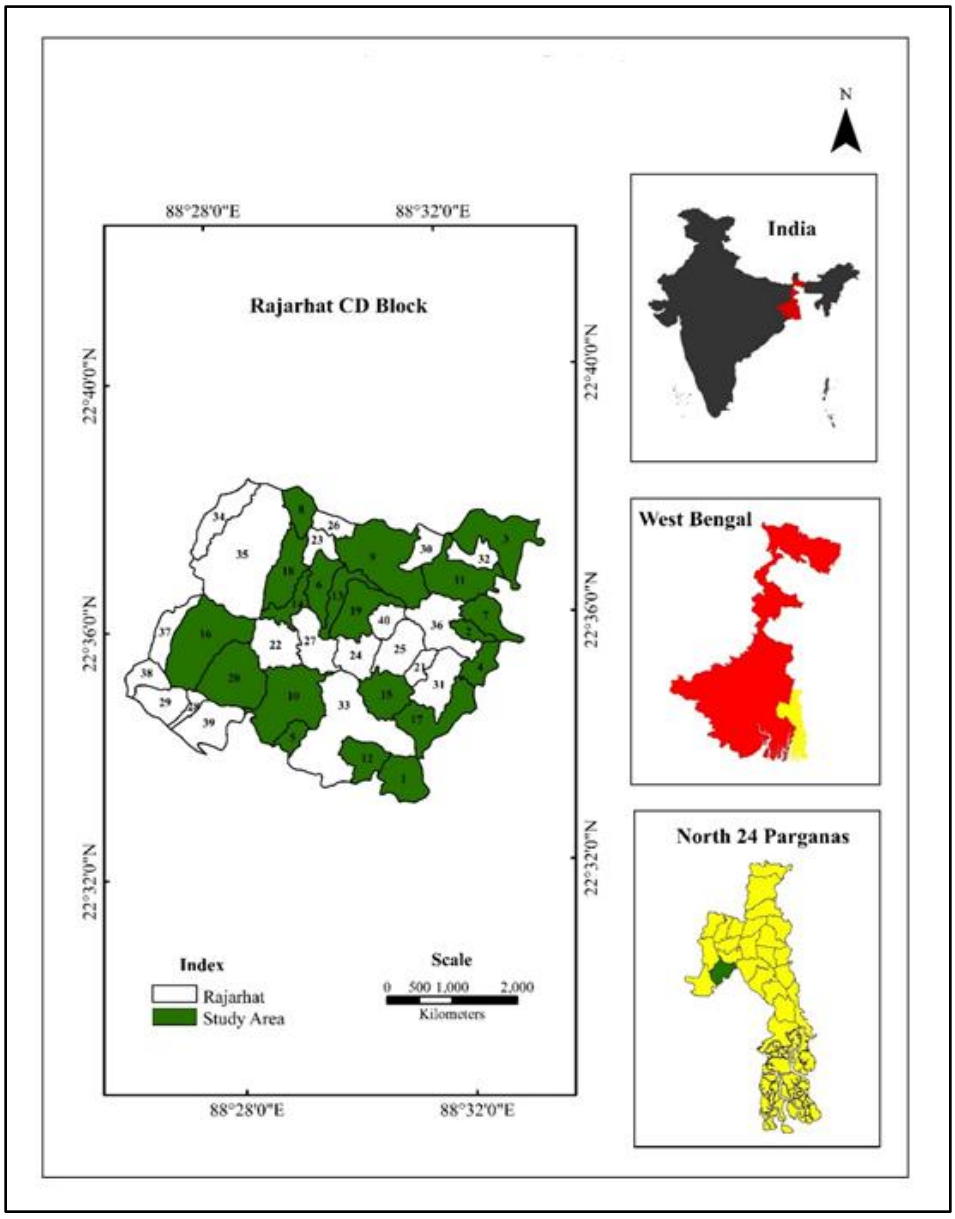

Figure1. Location Map of the study area

Map source: Census of India,2011

Figure 1.1 represent the selected village and census town in Rajarhat District. Akandakeshari (1), ChandapurChampagachhi CT(12), Ghuni CT (17), Dharsamoktarpur(15), Bagu(4), Arbelia(2), Bazetaraf (7), Chakpachuria(11), BagdobamachhiBhanga(3), Jagadishpur (19),Bidhannagar(9), Chhapna (13), Basina CT(6), Bhatenda CT (8), Hudarait (18), ChhotaChanpur (14), Ganragari (16), Jamalpara(20), Bishnupur CT (10), Baligari(5) these 21 villages and census town has been selected for the study.Based on concentration of the Muslim population the area have been selected. Among this village and census town, the respondent has been chosen through simple random sampling. The household are taking for the survey based on higher, moderate, lower class.

1.3. Statement of Problem

India is dedicated to supporting program for population control and development as well as the small family norm. It is crucial to comprehend why people are not convinced by the awareness of acceptance of family planning, why they desire more children, and why they do not use contraception. This calls for a comprehensive study of our people's reproductive behaviour. There were only few studies which giveathroughout idea about the contraception and family planning. It will be able to develop measures to alter such behaviour if the fundamental causes are understood. To increase the use of contraceptives among married couples, intensive efforts debunking common myths and beliefs are required, with the active participation of local leaders. It will assist in fostering a positive attitude among the public about family planning procedures.This fact motivated researcher to take up this research to find out with broad goal factors influencing to restricted uses of contraception among the muslim women and barriers of adaptation of family planning.

1.4 Objectives

1.To find out the impacts of socio-economic and demographic factorson uses of contraception and theiravailability.

2.To study the opinion of women about the necessity of uses of contraception, knowledge of birth control methods and sources of information

1.5. Hypothesis

Following major hypothesis was laid down in connection with the study-

1.There is apositive relationship between Educational level & Uses of contraceptives.

2.There is a Significance relationship between uses of contraception and Other variables.

2.Acceptance of uses of contraception depends on education of spouse, occupation of spouse, Religious myths, duration of marriage.

1.6. Database and Methodology

The present work represented throughempirical research. AsField study is an inherent part of research work, helps to correlate the theoretical knowledge with the ground relation, and evaluates our understanding in the real-world situation. The present study done through both primary and secondary data sources. The objective and testing of the hypothesis are totally done through the help of primary data based with a little bit of support of secondary database.

The principal secondary data for the study collected from the National Family Health Survey– IV& V (2015-2016& 2019-2020), Census of India, Report form the block development office etc.Besides that, the recorded ICDS database also supports to the fulfillment of the whole research work. Although the primary data collected through face-to-face surveys, interviews with individual women. The Questionnairewas prepared to collected information from ever married women age 15-49 who were usual residents of the sample household. The questionnaire covered mainly ten different areas: (i)Background characteristics: Questions on age, marital status, education, employment status, and place of residence provide information on characteristics likely to influence demographic and health behaviour. Respondents were also asked about the characteristics of their husband;(ii) Reproductive behaviour and intentions: This covered date and survival status of all births and current pregnancy status and future childbearing intentions of each woman; (iii) Quality of care: Questions assessed the quality of family planning and health

services; (iv) Knowledge and use of contraception: Here information was gathered on not using a contraceptive method, questions included the reasons for not using contraception and intentions concerning future use; (v) Sources of family planning: Questions determined where a user obtained her contraceptive method; (vi) Antenatal, delivery, and postpartum care. Basically, the data harden generated through an intensive field survey.

In the time of data processing, it was required to focus on the accuracy and completeness of the date.In the process of the data classification and tabulation, need to some statistical and cartographical techniques to represent the data set with proper interpretation

The research work was based on the descriptive and analytical in nature which emphasizes to the whole community related to the relationship among the variables which have been taken. The study related to tier system (District level, Block Level, Village level) so the variable has been selected which are relevant to the objective of the study. The Statistical Package for Social Sciences (SPSS) for Windows application used to analyses the data. Normal frequency and deviation calculated to know the nature of the data set.

Chi-Square Testwas created to test the hypothesis by Karl Pearson (1857–1936), a Renaissance scientist in Victorian London in the year of 1900. The chi-square test can be used to determine whether or not the rows and columns in a contingency table are associated. This statistic can be used to see if there are any differences in the proportions of the risk factor of interest between Chi-Square groups (Ghosh& Paul, 2021).

The Chi-Square formula is-

Chi Square Test (X^2) $\sum\frac{(O-E)2}{E}$……. *Equation*1

Where,

O = observed frequencies,

E = expected frequencies.

Comparing the tabulated value of the Chi-Square distribution table with the calculated value with the same degree of freedom association between the rows and columns is tested.

Spearman correlations have been used to find out the relationship between acceptance of family planning and other affected variables. The intensity and direction of relationship between two ranking variables is measured by Spearman's correlation coefficient (, usually abbreviated as rs).

$p = 1 + \frac{6\sum di^2}{n\ (n^2-1)}$……*Equation 2*

P = Spearman's rank correlation coefficient

di=difference between the two ranks of each observation

n=number of observations (Lyerly, 1952).

The ***first objective*** **and** ***first hypothesis***achieved through the Chi-square test. It represents the relationship between social and economic dimensions and contraception uses. ***The Second hypothesis*** achieved through bi-varriete analysis. Here To identify factors connected to the usage of contraception, the contingency coefficient, a chi-squared based indicator of the strength of link between nominal variables, was used. Other cartographical techniques have been used to shows the relationship of people adaptation interest or non interest of family planning. Here the explanatory variables are women decision making, willing to spend money for contraceptives,

son preferences, birth interval between marriage, family size, discussed the family planning with husband, types of family, family conservativeness.

The ***Second objective*** **and** ***third hypothesis*** *represent* through Spearman's correlation test. Itdetermines whether the numerical variables were normally distributed. Here acceptance of usescontraceptivesis the dependent variable and the independent variables are educational level of spouse, occupation of spouse, Religious myths, duration of marriage.

2. Family planning and contraception use

All methods used by individuals or couples to prevent unintended pregnancies, control the time between pregnancies, and determine when and how many children to have based on their ages and socioeconomic status are collectively referred to as family planning. There are several variables like education work participation etc can easily influence family planning and contraception uses.

2.1 Educational status of Respondent and Family Planning:

This study also found that women with primary education utilize less protection against unplanned pregnancy than women with a secondary or higher education, which is similar to our findings. During our interviews with the couples, we discovered that knowledge has a significant impact on the acceptance of various family planning methods. We discovered that educated women were more independent in making decisions about family planning issues, as stated.

TABLE 2.1 EDUCATION STATUS AND ACCEPTANCE OF CONTRACEPTION AMONG WIVES

Educational status	*Contraception Uses (N=407)*		*Chi-Square*
	Yes	*No*	
Illiterate (n=162)	31.6	68.4	
Primary (n=111)	39	61	
Upper Primary (n=45)	42	58	0.004*
Madhyamik (n=51)	92.7	3.3	
Higher Secondary (n=32)	43.5	57.3	
Graduate (n=25)	100	0	

Significance Level<0.005*Source: Primary Survey, 2022*

Acceptance of contraception in respondents according to an educational degree is indicated in Table 2.1. Chi-square test of goodness of fit showed that illiterate wives refused to accept the contraception which Statistical significance was found. On the contrary, Wives of all levels of education accepted some kind of it. Contraceptives, which was statistically significant once more significant. Contraceptive acceptance was much lower in illiterate women and husbands compared to educated wives and husbands of all levels of education.Higher socioeconomic level women and those who have completed more years of education may also have easier access to contraception.Although education level in the majority of cases had no direct bearing on the use of contraception, it unquestionably had a part in lowering fertility through an intermediary variable, the age at marriage.

2.2 Women age and Contraception Use:

According to the National Family Health Survey-4 (NFHS4), the current use of any contraceptive technique and a modern reversible method was 33.0 percent and 14.9 percent, respectively, among 20–24-year-old married young women (Thulaseedharan, 2018).Even most of the cases between 40 to 45 years women are pregnant due to reduction the uses of contraception.At the age of 30, 39% of the women had sterilisation. The predicted probabilities follow a typical inverted U-shaped curve, indicating that sterilisation rates were low in the younger age groups, increased after age 25, then remained essentially unchanged in the 35 to 40 year age group, and once more demonstrated a declining trend in the later age groups, 45+ (NFHS-4).

TABLE 2.2 CONTRACEPTION USED BASED ON WOMEN AGE

Age	Percentage of married women	Female sterilization (%)	Any modern method other than female sterilization (%)	Any traditional method (%)
15-24	29	16	8	21
25-34	46	17	12	26
35-44	20	8	7	11
45-59	15	6	3	8

Source: Primary Data, 2022

According to table 2.2, the current use of any contraceptive technique and a reversible method was 56 percent Among 18–28-year-old women, respectively. In the 15-24 age group they are using contraception higher than others based on all categories like percentage of married women, Female sterilization, any modern method other than female sterilization, any traditional method.

TABLE 2.3 ASSOCIATION BETWEEN CONTRACEPTION USE AND SELECTED VARIABLES

Variable	Contingency co efficient (C)	Corrected C	Significance
Educational level of wife	0.1121	0.1327	0.0102*
Educational Level of husband	0.0312	0.1741	0.7102
Total Number of Living Children	0.0214	0.532	0.0000*
Total number of Living sons	0.3521	0.5612	0.0000*
Age of Wives	0.3214	0.5423	0.0000*
Duration of marriage	0.3214	0.4326	0.0000*
Mobility of wife	0.2135	0.412	0.0000*
Religion (Islam)	0.1521	0.2314	0.0002*

Village	0.1654	0.2162	0.0006*
P value *<0.05			

Source: Calculated by Researcher,2022

The bi-variate analysis's findings are shown in Table 2.3, and it shows that the woman's age, educational level, number of living sons and daughters, religion, the availability of government health care in the village, and the length of her marriage are all statistically significant predictors of using family planning. But for the education level of husband does not effect the uses of contraception as the significance value is 0.7102 which has greater than p value (<0.05).

2.3 Source of Knowledge about Family Planning

Knowledge of family planning is one of the important things to balance the societal situation. There are many sources like radio, Television, social media from there people are getting information

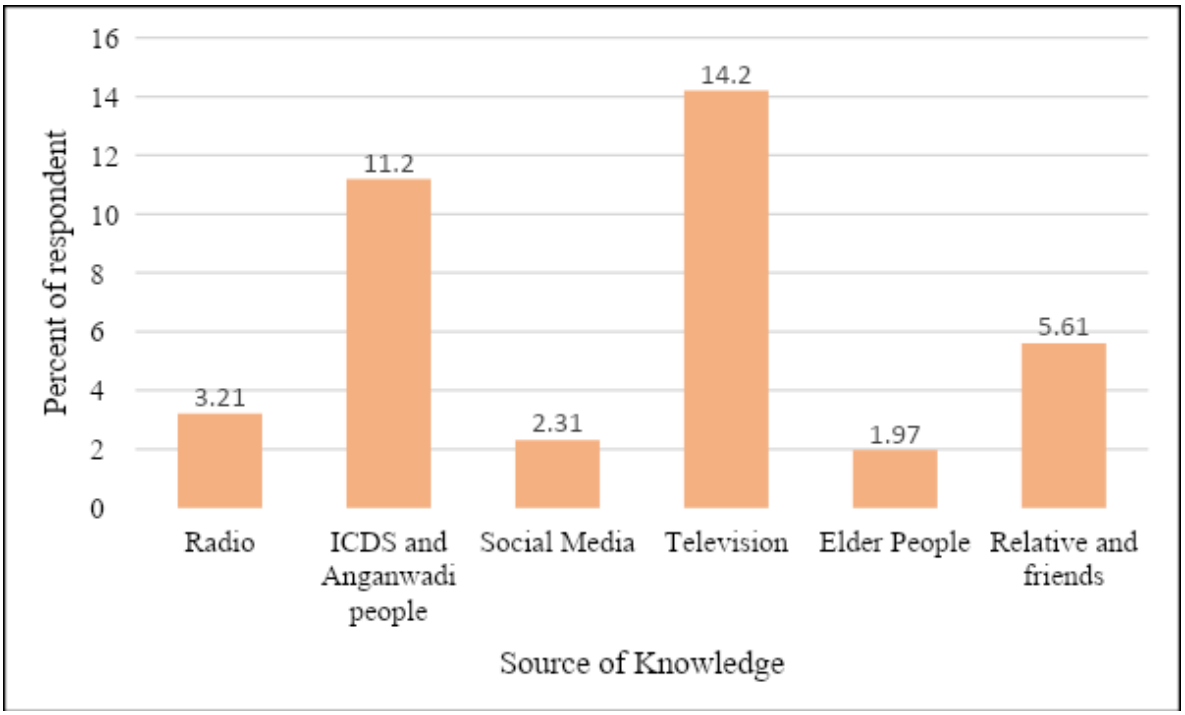

Figure 2.1 Source of knowledge about family planning

Source: Primary Data, 2022

Based on figure 2.1, It has been finding out that there are several things which are the source of knowledge for know about the family planning. Most of the respondent are having idea of family planning from Televisons,11.2 percent women know about family planning form ICDS and Anganwadi people. And near to 5.61 know from their relatives and friends. Some of respondent learn it from radio channel.

2.4 Opinions to use contraception:

The choice of contraceptive method is a reflection of the current level of care provided to women. A diverse choice of contraceptive options indicates that programs are capable of meeting the needs of women. The availability of both short- and long-term methods guarantees that the specific demands of women who want to limit their family size, space, and births are satisfied, as

well as their worries about sexually transmitted illnesses and cultural acceptance of available methods.

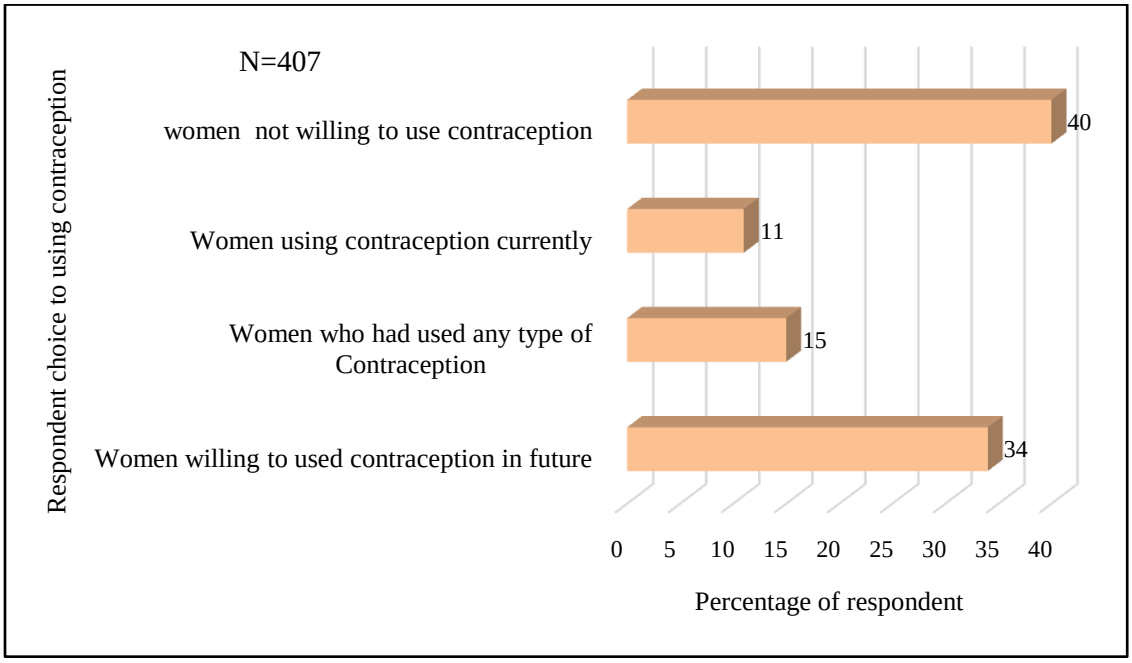

Figure 2.2 The respondent opinions to use contraception based on time period

Source: Primary Survey, 2022

Based on the choice near to34 % of women use contraception in the future. On the other 15 % of women who had used any type of contraception, 11 %. 40 % of women are not willing to use contraception as a lack of awareness or lack of knowledge (Figure2.2).Elders in the family and medical professionals make little effort to encourage the young couple to utilise contraception, especially before having their first child. Other barriers to using contraception before giving birth include young women's lack of knowledge about how pregnancy occurs, about contraception, and about where to find its supplies; their limited access to sex education in school and at home; their limited mobility and freedom to access clinics and contraceptives; the unequal power dynamics in their marriages; and their experience with or fear of spousal violence. Early pregnancy might result in a severe.

3. Perception of the respondent regarding Family Planning:

Family Planning is one of the most important key factors to control the reproductivity and increasing rate of fertility. Perception about the fertility among the family member one of the most important key factor. In India due to the several myths and misconception of the religious and social aspect, the willingness of uses of family planning methods is very low So it's necessary to understand the perception of respondent or their attitude towards family planning.

TABLE 3.1 RESPONDENT ATTITUDE TOWARDS FAMILY PLANNING:

Variables		**Percentage of Women (N=407)**
Family planning methods known	Knows all methods	4.51
	Knows at least 1 method	56.5
	Does not know any method	38.99
Afraid to use contraception because of religious beliefs	Afraid	63.51
	Not afraid	33.28
	Not sure	3.21
Considering having an abortion if she doctors suggest or any kind of health problems	Yes	22.31
	No	62.14
	Not sure	15.55
	Total	100

Source: Primary Data, 2022

Table 3.1 shows the demographic, obstetric, and family planning features of the women who participated in the study. 38.91 percent of the women said they were unaware of any family planning methods, 63.51 percent said they were not scared of using contraception, and 62.14 percent said they would not have an abortion eventually after learning their difficulties and health problem. They have accepted the risk of pregnancy.

3.2 Association between acceptance of family Planning and Affected Variables:

A number of interrelated factors influence family planning, including age at marriage, education, economic status, religion, and the number of living children.

TABLE 3.2 RELATION BETWEEN ACCEPTANCE OF FAMILY PLANNING AND AFFECTED VARIABLES:

Variables	**Family Planning Attitude Scale total score**
Mean age of the woman	
*R*s	0.123
P	0.003
Mean number of pregnancies	
*R*s	-0.118
P	0.003
Mean number of miscarriages	
*R*s	-0.009
P	0.016
Mean number of abortions	
*R*s	0.03
P	0.561
Mean number of living children	
*R*s	0.159
P	0
r_s: *Spearman's Correlation* *P<0.05 (95 % significance level)*	

Source: Calculated by Researcher,2022

The women's mean age was found to have a weak positive relationship with their mean scale score and Table 3.2 shows that their mean scale score has a weak negative relationship with the number of pregnancies, losses, and living children ($p < 0.05$). As the women's average age climbed, their acceptance of family planning became more favourable, but as the number of pregnancies, miscarriages, and living children increased, their sentiments became more negative.

4. CONCLUSION:

Reduced maternal and new-born mortality, enhanced economic development due to increased women's engagement in the labour force, and more sustainable resource use due to reduced population growth are all societal benefits of family planning. Misconception regarding Islamic ideology is one of the greatest problems to stop the path of women. As there are many problems reading the actual Islamic philosophy and misinterpretation the head and persistence of the Muslim community. Because of lack of knowledge women are suffering most of the time, many women are not highly educated so they need to listen to others and the problems start form there. Beside this, if a woman is highly educated then also due to the pressure of the society, they even raise their voice. It also discovered links between various characteristics of Women's autonomy and reproductive health endeavour, although there are many complexities and contradicting

findings among them, with many aspects of autonomy exhibiting surprising links to fertility behaviour. It was discovered that more good family planning practices are needed to improve their reproductive and sexual health as well as for social development. On the other hand, the study also shows the theological antagonism that most respondents have, these tactics may appear to be "neither here nor there" to them. This could be one of the factors that the limiters observe or consider while deciding whether to use conventional or new procedures. Other reasons could include health concerns, inconvenience and lack of access to the procedure, a desire to utilize these methods for spacing rather than pregnancy prevention, or a fear of going against cultural standards and expectations. Nonetheless, the report highlights issues that restrict women from obtaining family planning services, including: partner opposition, lack of understanding about family planning dread of negative effects, as contraceptive restrictions.

Acknowledgement

The authors would like to thank IIPS, Mumbai for the National Family Health Survey for the data set without which, it is not possible to find such novel results. Authors would like to be in-debt to local peoples who are provided information with sincere manner regarding to fulfill the study objectives. The authors also pay their sincere vote of thanks to their teachers of the Department of Geography and Applied Geography, University of North Bengal for building up the cognitive background to carry out such work. They are seriously thankful to the UGC for encouragement as Junior Reseach Fellow (JRF) to carry out the novel work.

Conflict of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper and no other third-party interferences so far, their knowledge and belief.

REFERENCES

Akın, A. (2018). Family planning services in context to religion and women in Turkey. *ToplumveHekim*, 33(1), 61–71

Angeles, G., Guilkey, D. K., &Mroz, T. A. (1998). Purposive program placement and the estimation of family planning program effects in Tanzania. *Journal of the American Statistical Association*, *93*(443), 884-899.https://doi.org/10.1080/01621459.1998.10473745

Apay, S. E., Nazik, E., Ozdemir, F., &Pasinlioglu, T. (2010). The determination of the behaviours about family planning of the women. *Anadolu HemşirelikveSaglıkBilimleriDergisi,* 13(3), 1–7.

Biddlecom, A. E., &Fapohunda, B. M. (1998). Covert contraceptive use: prevalence, motivations, and consequences. *Studies in family planning*, 360-372.https://doi.org/10.2307/172249

Bongaarts, J., Mauldin, W. P., & Phillips, J. F. (1990). The demographic impact of family planning programs. *Studies in family planning*, *21*(6), 299-310.https://doi.org/10.2307/1966918

Basu, A. M. (2005). Ultramodern contraception: Social class and family planning in India. *Asian Population Studies*, *1*(3), 303-323.

Census (2011): Office of the Registrar General & Census Commissioner, India, available from http://censusindia.gov.in/Tables_Published/Tables_published.html. (accessed on November 25, 2022).

Dal, N. A., &Beydag, K. D. (2021). Attitudes of Married Muslim Women Regarding Family Planning Methods During the COVID-19 Pandemic in Western Turkey. *Journal of religion and health*, *60*(5), 3394-3405.https://doi.org/10.1007/s10943-021-01387-3

Dharmalingam, A. (1995). The social context of family planning in a South Indian village. *International Family Planning Perspectives*, 98-103.https://doi.org/10.2307/2133182

Family Planning 2020 India Commitments. [accessed on July, 2022]. Available from: https://www.familyplanning2020.org/india

Huber, D., Saeedi, N., &Samadi, A. K. (2010). Achieving success with family planning in rural Afghanistan. *Bulletin of the World Health Organization*, *88*, 227-231. https:// 10.2471/BLT.08.059410

Jesha, M. M., Sebastian, N. M., Haveri, S. P., & Nath, A. S. (2016). Unmet needs for family planning in a municipal area in North Kerala, India. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, *5*(7), 2322-2328.http://www.ijrcog.org/index.php

Khan, N., Gautam, A., Agrawal, G., & Ghosh, T. (2017). A district level investigation of family planning program in rural India: Stagnant or progressive. *Demography India*, *46*(2), 53-67.

Laxmi, V., Parikh, J., Karmakar, S., &Dabrase, P. (2003). Household energy, women's hardship and health impacts in rural Rajasthan, India: need for sustainable energy solutions. *Energy for sustainable development*, *7*(1), 50-68.https://doi.org/10.1016/S0973-0826(08)60348-8

Lasee, A., & Becker, S. (1997). Husband-wife communication about family planning and contraceptive use in Kenya. *International family planning perspectives*, 15-33.https://doi.org/10.2307/2950781

Ledbetter, R. (1984). Thirty years of family planning in India. *Asian Survey*, *24*(7), 736-758.https://doi.org/10.2307/2644186

Lee, L. C., Casanueva, C. E., & Martin, S. L. (2005). Depression among female family planning patients: prevalence, risk factors, and use of mental health services. *Journal of women's health*, *14*(3), 225-232.https://doi.org/10.1089/jwh.2005.14.225

National family health survey (NFHS-4), 2016-17. Vol. 1. Mumbai: IIPS and Macro International; 2007. Indian Institute of Population Sciences [accessed on July, 2021].

National family health survey (NFHS-5), 2019-20. report. Mumbai: IIPS and Macro International; 2007. Indian Institute of Population Sciences [accessed on July, 2021].

Saxena, N. C., Farrington, J., & Mondal, S. K. (2003). *Trends and prospects for poverty reduction in rural India: Context and options*. London: Overseas Development Institute.

Thulaseedharan, J. V. (2018). Contraceptive use and preferences of young married women in Kerala, India. *Open access journal of contraception*, *9*, 1.https://dx.doi.org/10.2147%2FOAJC.S152178

Cohen, S. I., & Burger, M. (2000). *Partnering: A new approach to sexual and reproductive health*. New York: United Nations Population Fund.

Muttreja, P., & Singh, S. (2018). Family planning in India: The way forward. *The Indian journal of medical research*, *148*(Suppl 1), S1.

Visaria, L., Jejeebhoy, S., & Merrick, T. (1999). From family planning to reproductive health: challenges facing India. *International family planning perspectives*, S44-S49.

Chandrasekaran, C. (1956). Cultural patterns in relation to family planning in India. *Journal of Tropical Pediatrics*, *2*(1), 37-42.

Thapar, S. (1963). Family planning in India. *Population Studies*, *17*(1), 4-19.

Ewerling, F., McDougal, L., Raj, A., Ferreira, L. Z., Blumenberg, C., Parmar, D., & Barros, A. J. (2021). Modern contraceptive use among women in need of family planning in India: an analysis of the inequalities related to the mix of methods used. *Reproductive Health*, *18*(1), 1-12.

Barman, S. (2013). Socio-economic and demographic determinants of unmet need for family planning in India and its consequences. *J Res Humanit Soc Sci*, *3*(3), 62-75.

Williams, R. J. (2014). Storming the citadels of poverty: Family planning under the emergency in India, 1975–1977. *The Journal of Asian Studies*, *73*(2), 471-492.

Char, A., Saavala, M., &Kulmala, T. (2010). Influence of mothers-in-law on young couples' family planning decisions in rural India. *Reproductive health matters*, *18*(35), 154-162.

Sudhinaraset, M., Afulani, P. A., Diamond-Smith, N., Golub, G., & Srivastava, A. (2018). Development of a Person-Centered Family Planning Scale in India and Kenya. *Studies in Family Planning*, *49*(3), 237-258.

Bhargava, A. (2003). Family planning, gender differences and infant mortality: evidence from Uttar Pradesh, India. *Journal of Econometrics*, *112*(1), 225-240.

Speizer, I. S., Nanda, P., Achyut, P., Pillai, G., &Guilkey, D. K. (2012). Family planning use among urban poor women from six cities of Uttar Pradesh, India. *Journal of Urban Health*, *89*, 639-658.