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Unmet Need for Contraceptive among Tribal Married Women of Rangamati District, Bangladesh

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Abstract **Original Research Article**

Background: The unmet need for contraceptives refers to the discrepancy between some women's objectives towards conception and their use of contraception, which has been a central indicator for monitoring the progress of family planning programs. ***Objective***: This study set out to identify and evaluate the unmet need for contraceptives among married tribal women between the ages of 15 to 49. ***Materials and Methods***: A descriptive cross-sectional study was carried out between January 2022 to December 2022 in Belaichari Upazilla of the Rangamati district. Two hundred and six married indigenous women (15–49 years old) were surveyed house–to–house. Data on the characteristics of contraceptive uses, unmet needs, and correlations were collected by interviewing the participants using a pre-designed, semi-structured questionnaire. ***Results***: The mean age of the participants was 28.07 ± 6.09 years, and most were Buddhist (63.6%). The contraceptive prevalence rate was found to be 41.3%. Overall, unmet need for family planning was 16.5%, and the age of the woman, religion, and profession of the husband were found to be significantly associated with the unmet need for contraceptive. Apprehension of side effects and difficulty in using were reported as two common reasons for unmet needs. ***Conclusion***: Contraceptive services should place priority on improving the information and counseling they provide and the range of methods they offer. All sexually active women need information about their risk of becoming pregnant and about the choices of methods that could meet their needs.

Keywords: Tribal, married women, unmet need, contraceptive.

INTRODUCTION

Family planning reduces mortality and morbidity in mothers, neonatal infants, and children under five [1, 2]. The use of contraceptive methods allows the spacing of pregnancies or limiting family size, enabling individuals and couples to fulfil their fertility desire by choosing to become pregnant. Contraceptive use not only has positive effects on health-related outcomes, such as improved maternal and child health but also improves schooling and economic outcomes for girls and women [3].

In countries with high birth rates, it has the potential to reduce poverty and hunger, averting 32% of all maternal deaths and nearly 10% of childhood deaths [4]. Contraceptive uptake also has a role in reducing Total Fertility Rates (TFR) [5]. The global fertility rate has declined steadily from 2.9 in 2010 to 2.8 in 2012 and 2.4 in 2020 [6].

In Bangladesh, awareness of family planning (FP) and the usage of contraceptives has increased recently. They play a remarkable role in controlling fertility, in this regard; government and non-governmental organizations (NGOs) have employed various strategies. Many researchers believe this is an impressive achievement within Bangladesh, a Muslim country where different familial, socioeconomic, cultural, and religious taboos still prevail [7].

Despite these achievements, the prevalence of unmet needs for family planning remains high and has been increasing slowly in recent years. The demographic and Health Survey (DHS) defines the unmet need for family planning as a non-use of contraception when women are unwilling to have more children or want to

have them about two or more years later. According to Bangladesh Demographic and Health Survey (BDHS 2017-2018), 12% of currently married women in Bangladesh have an unmet need for family planning services, 5% for spacing, and 7% for limiting. Unmet need is higher among women in rural areas than those in urban areas (13% versus 9%) [8].

A couple's access to reproductive health care can be inferred from their rate of contraceptive use. The gap between women's reproductive intentions and their contraceptive behavior can be revealed by unmet need for family planning. When monitoring the goal of attaining universal access to reproductive health care, the indicator is helpful. Information on contraceptive prevalence complements the indicator of unmet need for family planning [9]. The odds of unintended pregnancy were about 16-fold among women who reported facing unmet need for contraception compared to those who did not [10].

Bangladesh is home not only to mainstream Bengalis but also to more than forty-five indigenous groups mainly residing throughout the hilly forest areas of the country.11 The total population of ethnic minorities in Bangladesh was estimated to be over 1.65 million in 2022 [12]. Chattogram hill tract (CHT) is Bangladesh's least economically developed area, where education and healthcare facilities are hard to reach. The pattern of contraceptive use depends on the couples' sociocultural, educational, and economic conditions [13].

Unmet need for contraceptives is a valuable concept that is widely used for advocacy, the development of family planning policies, and the implementation and monitoring of family planning programs worldwide [14]. In each country, understanding the size of unmet needs and the characteristics of women with unmet need can help planners strengthen programs. Survey data on unmet needs can provide overall direction by helping to pinpoint the obstacles in society and weaknesses in services that need to be overcome [15].

The aim of the study is to estimate the levels of unmet need for contraception among tribal married women, and to explore factors associated with unmet need for contraception in Belaichari Upazilla of Rangamati District.

MATERIALS AND METHODS

Study types, Study area and subjects:

This study was a descriptive type of cross-sectional study to determine the unmet need for contraceptives among tribal married women of reproductive age group in Rangamati District. From January 2022 to December 2022, data was collected by face-to-face interviews through a semi-structured questionnaire on 206 female, married women of reproductive age group of Belaichari Upazilla of the Rangamati district, Bangladesh. Tribal married women aged between 15-49 years who have been living in that area for 6 months were considered as study population.

Sample size and sampling:

To estimate the prevalence following formula was used to determine the sample size:

$$n = \frac{z^2 pq}{d^2}$$

Where, Contraceptive prevalence(p), any method in married women ages (15-49) Bangladesh was 62%[8] with 95% confidence interval allowable error/precision in the estimate of 'p' (usually 10% of p), the final sample size was 236.

However, due to time constraint, availability and other obstacles it was possible to include 206 participants in the study.

Data collection tool

An appropriate number of married women of the reproductive age group were selected from Belaichari Upazilla of the Rangamati district by convenience sampling. Data were collected with the help of a pretested, semi-structured questionnaire. Data were collected through the face-to-face interview method. Since the tribe had a distinct language and was uncomfortable in speaking Bengali, I recruited two bilingual female helpers from their community, who helped me conduct the interviews after explaining the questionnaire. Informed written consent was obtained from each eligible respondent after fully explaining the study's outcome and purpose. The data were collected through face-to-face interviews with the respondents.

Study variables

Socio-demographic variables include age, religion, family member, type of family, and socio-economic variables include respondent's education, respondent's occupation, husband's occupation, husband's education level, and socio-economic status.

Variable related to unmet need age at marriage, duration of marriage, no. of pregnancy, no. of the living child, inter-spousal communication, residing with husband, husband using contraceptives, currently contraceptive use, currently pregnant or breastfeeding, desire for additional child, fear of side effects, availability, medical condition, disapproval of using contraceptives, fear of not getting pregnant in the future, social influence, political influence.

Data processing and analysis:

Data were collected, compiled, and tabulated according to key variables. Different variables were

analyzed according to standard statistical analysis using SPSS version 23. Data were presented as frequency and percentages. The chi-square test analyzed the association between unmet needs and socio-demographic and socio-economic characteristics. It was decided that less than 0.05 was the significance level.

RESULTS

A total of 206 married women of reproductive age were included in this study and shows that half of the respondents (51%) were in the age group of 23-32 years and only 22.3% were in the age group of 18-22 years, with a mean of 28.07 years (SD ± 6.09 years). Most respondents (63.6%) were Buddhist. They lived in nuclear families (51.9%), and most of the respondents (57.3%) number of family members were below 5 people (Table I).

Almost half, 43.2% of the respondents had completed their secondary school certificate education, and 25.2% had completed their primary school certificate and below education. Most respondents (62.1%) were homemakers. Regarding their husbands' educational status, about half of them (52.9%) had attended a secondary school certificate or below, 14.6% had completed a primary school certificate or below, and 44.7% were shop owners. According to the modified Kuppuswamy Socioeconomic Scale 2021, more than half of the respondent's (61.2%) socioeconomic status was lower class (Table II).

Here, more than half of the respondents (66.5%) age at marriage were in the age group of 15-18 years, with a mean age at marriage was 18.36 (SD ± 2.1) years old. About half of the respondents (52.9%) said the duration of marriage was less than 10 years. Of those, 177 (85.9%) participants reside with their husbands. One hundred fourteen (55.3%) of the women had discussed using contraceptive methods with their husbands (Table III). Out of 206 responses, 116 (56.3%) of the women had had two or more pregnancies in the past. Who eschewed using contraception during the interview, 27 (22.3%) of them were pregnant and 29% of them reported breast-feeding and going without a period after giving birth. Two children were born to 86 (41.7%) respondents in their lifespan. A total of 92 respondents (44.7%) said they would like to have more children in the future, and 68.5% said they would like to start trying right away (Table IV).

Of 206 respondents, only 85 respondents (41.3%) were using a modern contraceptive method and 31 (15%) of the respondent's husbands used contraceptive methods (Fig 1). Respondents received their information about contraceptives from mainly from healthcare provider i.e., 51.8% followed by family (24.7%), neighbours (16.5%), friends (7.1%) (Fig 2). Unmet need for contraceptives in this study group was 16.5 % (Unmet need for spacing 3.4% and unmet need for limiting 13.1%) and met need was 83.5% (Contraceptive user 41.3%, whereas 42.2% of them of did not have any need for contraceptives) (Fig 3).

Out of 34 women, the majority, i.e., 52.9%, stated that there was difficulty in using contraceptives, and about 44.1% feared side effects from contraceptives. 34.4% said they have some medical conditions that contraindicate contraceptive use; 29.6% disapproved of family members or husbands; 17.6% had social influence-related problems, and 26.5% of respondents stated that contraceptives were not available to them. Only 8.8% reported fear of permanent loss of fertility (Fig 4).

Out of 206 women, 34 (16.5%) had an unmet need for family planning. The highest unmet need was observed in the age group of 33-42 years, i.e., 51.1%. Chi-square test revealed significant association between age of the respondent and unmet need. ($p = <0.001$) Unmet need was more among Christians (45.5%) and association is statistically significant ($p = 0.03$) (Table V). Here it shows an association between socioeconomic factors and unmet contraceptive needs. The highest unmet need was observed in the respondents with primary school education and below, i.e., 41%. The chi-square test revealed no significant association. ($p=0.071$) Respondents' whose husbands worked as professionals had a more unmet need for contraceptives, i.e., 66.7% and the Chi-square test revealed a significant association. ($p=0.008$*).

Table I: Socio-demographic characteristics of the participant

Variable	Category	Frequency	Percentage
Age	18-22 years	46	22.3
	23-32 years	105	51
	33-42 years	55	26.7
Religion	Buddhist	131	63.6
	Christian	57	27.7
	Other	18	8.7
Type of Family	Nuclear	107	51.9
	Joint	99	48.1
Number of Family Members	Below 5	118	57.3
	5 and above	88	42.7

Table II: Socio-economic characteristics of the respondent

Variable	Category	Frequency	Percentage
Respondent's Education	Primary school certificate and below	52	25.2
	Secondary school certificate and below	89	43.2
	Higher secondary school and above	65	31.6
Husbands' education	Primary school certificate or below	30	14.6
	Secondary school certificate	109	52.9
	Higher secondary school or above	67	32.5
Respondents Occupation	House maker	128	62.1
	Employed	78	37.9
Husband's Occupation	Worker	88	42.7
	shop-owner	92	44.7
	Professional	26	12.6
Socio-economic status	Middle Class	80	38.8
	Lower Class	126	61.2

Table III: Distribution of the respondent according to their family life

Variable	Category	Frequency	Percentage
Age at marriage	15-18	137	66.5
	19-22	59	28.6
	23-26	10	4.9
Duration of marriage	Less than 10yrs.	109	52.9
	More than 10yrs.	97	47.1
Currently residing with husband	Yes	177	85.9
	No	29	14.1
Inter-spousal communication about using contraceptives	Yes	114	55.3
	No	92	44.7

Table IV: Distribution of the respondent according to their reproductive Characteristic

Variable	Category	Frequency	Percentage %
Total Number of pregnancies	0	20	9.7
	1	70	34
	2 and above	116	56.3
Currently Pregnant (n=121)	Yes	27	22.3
	No	94	77.7
Currently Breastfeeding/in the postpartum period (n=121)	Yes	29	24
	No	92	76
Number of the living child	0 child	24	11.7
	1 child	75	36.4
	2 children	86	41.7
	3 child & more	21	10.2
Desire for another child	Yes	92	44.7
	No	114	55.3
Spacing between additional children (n=92)	Less than 2 years	63	68.5
	More than 2 years	29	31.5

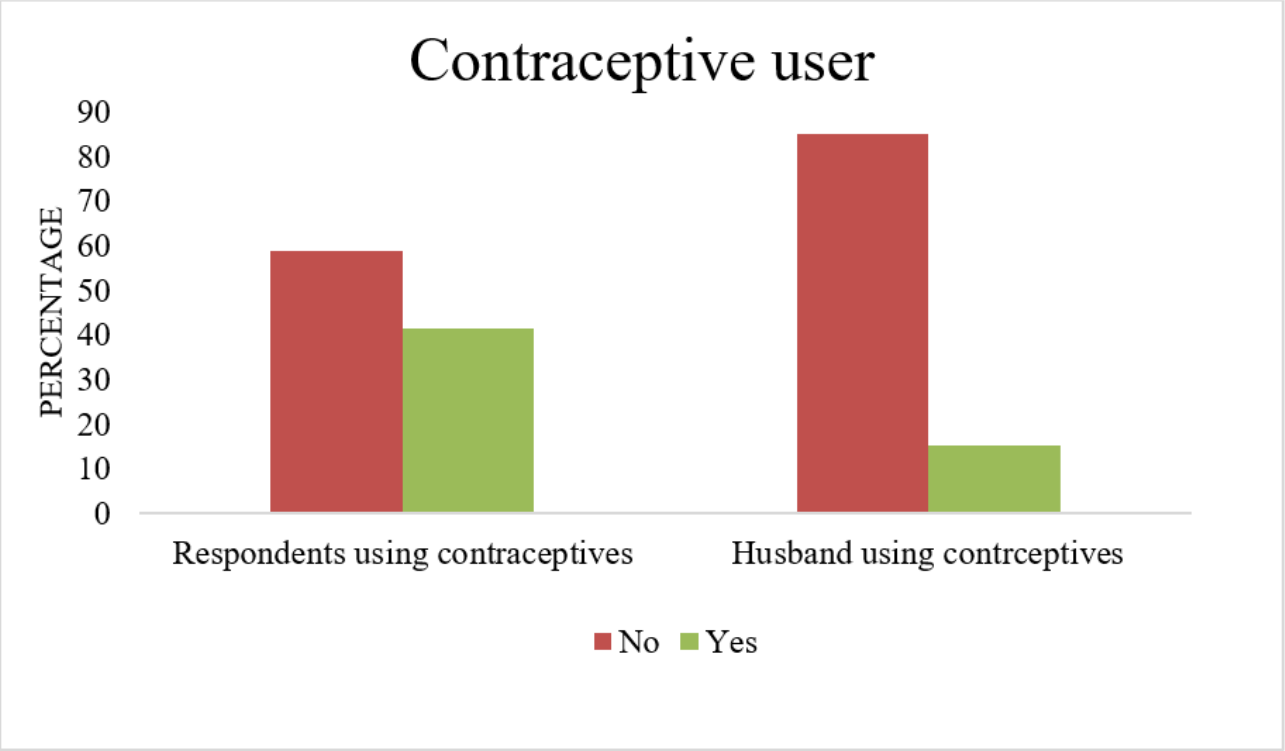

Figure 1: Contraceptive used by respondent and their husband

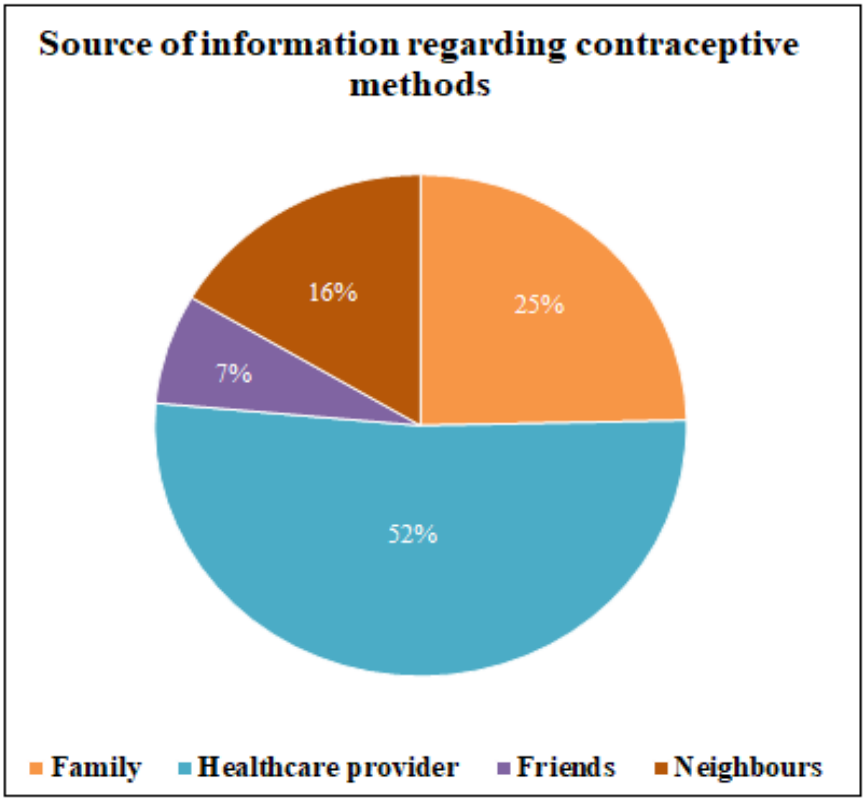

Figure 2: Source of information regarding contraceptive methods

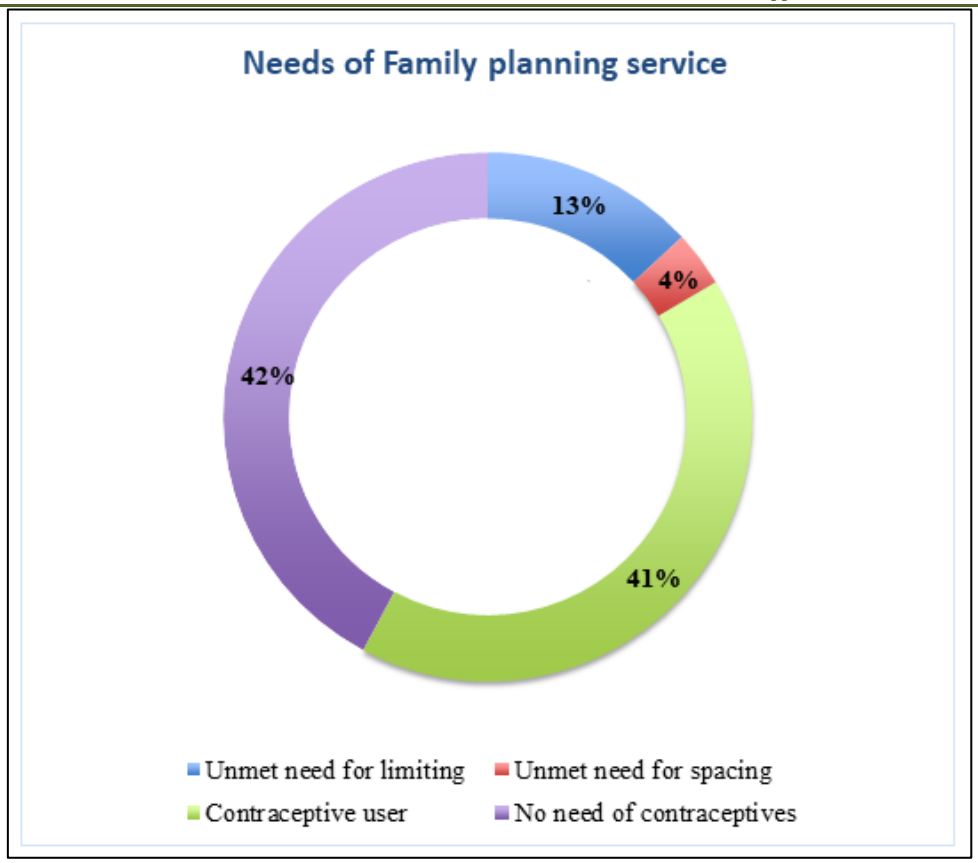

Figure 3: Distribution of study participants according to needs of contraceptives

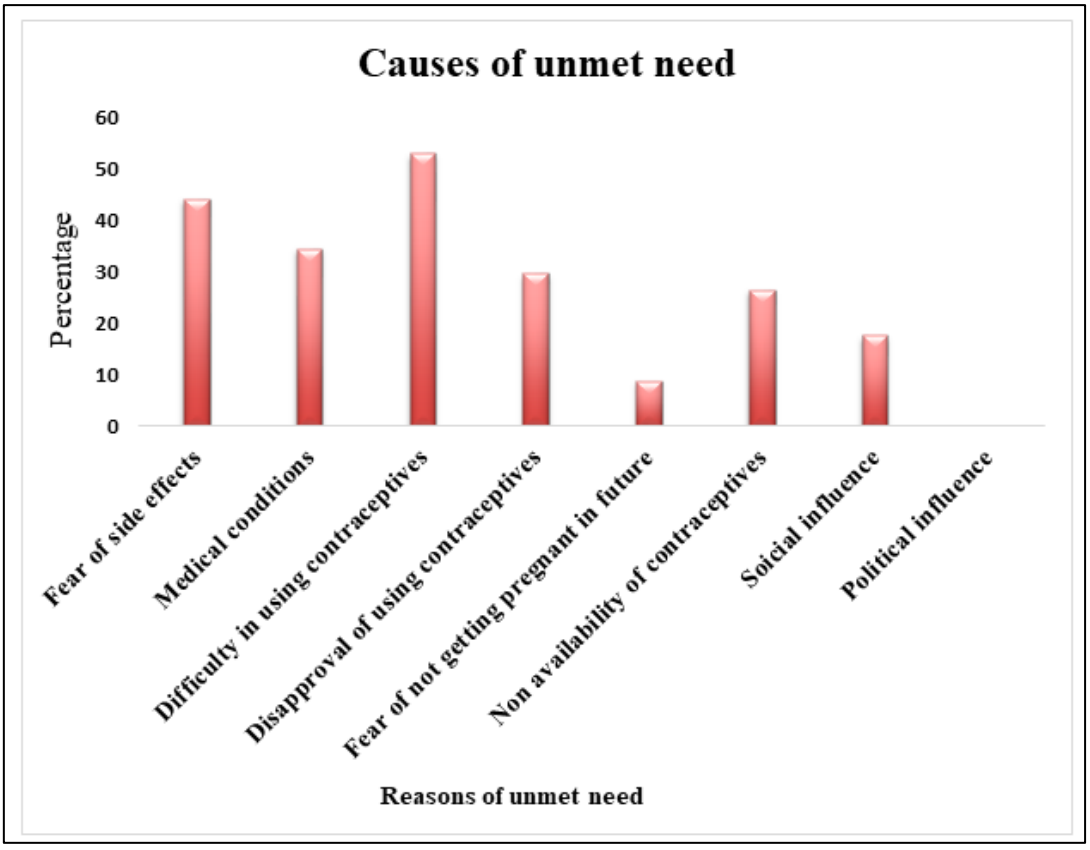

Figure 4: Reasons for not using contraceptives among those who had unmet need

Table V: Association between sociodemographic variables and levels of Unmet need

Variable	Unmet need		p value
	Yes, Not using MFP(n=34) N (%)	No, Using MFP (n=85) N (%)	
Age			
18-22 years	3 (16.7)	15(83.3)	<.001*
23-32 years	8 (14.3)	48(85.7)	
33-42 years	23(51.1)	22(48.9)	
Religion			
Buddhist	16 (20.8)	61 (79.2)	.030*
Christian	15 (45.5)	18 (54.5)	
Other	3 (33.3)	6 (66.7)	
Type of Family			
Nuclear	13 (22)	46(78)	.117
Joint	21 (35)	39(65)	
Number of Family Members			
Below 5	15 (23.4)	49 (76.6)	.181
5 & Above 5	19 (34.5)	36 (65.5)	

* Statistically significant by Chi Square test

Table VI: Association between socio-economic variables and levels of Unmet need

Variable	Unmet need		p value
	Yes, Not using Contraceptives n (%)	No, Using Contraceptives n (%)	
Education			
Primary school certificate and below	16 (41)	23 (59)	.071
Secondary school certificate	8 (18.2)	36 (81.8)	
Higher secondary school and above	10 (27.8)	26 (72.2)	
Husbands' education			
Primary school certificate and below	5 (20.8)	19 (79.2)	.619
Secondary school certificate	18 (31.6)	39 (68.4)	
Higher secondary school and above	11 (28.9)	27 (71.1)	
Occupation			
House maker	24 (31.2)	53 (68.8)	.396
Employed	10 (23.8)	32 (76.2)	
Husband's Occupation			
Worker	13 (22.4)	45 (77.6)	.008*
shop-owner	13 (26.5)	36 (73.5)	
Professional	8 (66.7)	4 (33.3)	
Socio-economic status			
Middle Class	10 (27)	27 (73)	.802
Lower Class	24 (29.3)	58 (70.7)	

* Statistically significant by Chi Square test

DISCUSSION

This study examined the determinants of unmet need for contraception among tribal married women in the reproductive age group in Belaichari Upazilla and evaluated the prevalence of unmet need for contraceptives.

A total of 206 people were surveyed for this descriptive type of cross-sectional study. The majority of respondents (51%) were between the ages of 23-32 years, with a mean age of 28.07 years (SD ± 6.09 years). About half of the families were of the nuclear type, with the remainder being joint or extended households. Because of the tribal territory, the majority of respondents are Buddhist. Research conducted in rural areas of Manikganj District in 2018 found that the majority of respondents (27.09%) were in the age category of 25-29 years, with 26.90% being over 35 years old and more than half living in nuclear households [37]. Anil *et al.*, found a similar tendency in family composition in a prior study in Mysuru [32].

According to the findings of the current study, 43.2% of respondents had completed their secondary school certificate education, while 25.2% had completed their primary school certificate and lower education. Of the majority of respondents, 62.1% were housewives.

According to Mallick *et al*., 38.5% had completed secondary school and 88.5% were housewives [38]. The similarity in results could be attributed to the fact that both investigations were conducted on rural populations. In terms of their spouses' educational status, over half (52.9%) had completed a secondary school certificate or lower, 14.6% had completed a primary school certificate or lower, 44.7% were shop owners, and more than half (61.2%) of the respondents' socioeconomic standing was lower class. A similar survey conducted in Mysuru in 2021 indicated that the majority of the woman's husbands received a high school education and were active in specialized labour, and nearly half of the respondents were from families with low incomes [32].

The results of the current study revealed that more than half of the respondents (66.5%) fell into the 15 to 18 age range when they got married, with a mean age of 18.36 (SD 2.1) years and a minimum age of marriage of 15 and maximum 26. The average length of a marriage, according to respondents, is less than a decade (52.9%). One hundred fourteen (55.3%) of the women had talked to their husbands about adopting a contraceptive technique. According to George *et al*., (2018), the mean age at marriage in the sample population was 17.51 ± 2.90 years, with the minimum and maximum ages for marriage being 13 and 26, respectively. More than half of them (55.64%) have been happily married for ten or more years, and 85% reported having talked about contraception with their husbands [40]. In their survey, Mallick *et al*., reported that 46.2% of respondents had been married for less than ten years [38]. Out of 206 participants in the study, 27 (22.3%) were expecting a child, and 29 (24%) were post-partum or breastfeeding. 92 (44.7%) respondents said they would like to have more children in the future, and 68.5% of them said they wouldn't want to postpone their pregnancy for two years. A majority of 116 (56.3%) women had a history of two or more pregnancies; 86 (41.7%) of these women had two children overall. (Table 4) In another study by Wolde *et al*., 12.9% of women were pregnant at the time of the interview. In addition, 13.3% of the expectant mothers desired a later pregnancy, 8.4% did not want to become pregnant at all,27 and 41.04% claimed to have at least two children overall [37].

Only 85 of the 206 respondents (41.3%) used a contemporary method of contraception. Similar to our study, earlier research by Mukherjee *et al*., (2018) found that tribal married women in Paschim Bardhhaman, West Bengal, had a contraceptive prevalence rate of 41.1% [34]. According to Prusty, 39.5% of tribal women who are now married utilize contraception in the country, 40.2% in Chhattisgarh, and 48% in Madhya Pradesh [41].

In this study, out of 206 people, 34 (16.5%) had unmet needs; of them, 7 (3.4%) had unmet needs for spacing births, and 27 (13.1%) had unmet needs for limiting births. (Fig 3) The unmet demand is relatively high when compared to Bangladesh's BDHS 2017–2018 data, where the total unmet need was 12%, with 5% for spacing and 7% for restricting births [8]. The unmet demand for family planning among tribal married women was reported to be 19.4% in Paschim Bardhhaman, West Bengal [34] and 15.7% in Nefesha Village, Ismailia, which is closest to our study [28]. The area we researched was inhabited by people with lower socioeconomic positions, lower education status, early marriage, a lack of knowledge, and religious views among the area's majority population, which could be reasons for the discrepancy.

Unmet needs have always existed for a variety of reasons. According to the findings of the current study, the two most frequent causes of unmet need were difficulties using contraceptives (52.9%) and concern over side effects (44.1%). Another study (2018) found that 44.2% cited family interference, cultural and religious restrictions, and about 39.5% had health concerns and a fear of permanently losing fertility [39]. A study in a tribal area of Paschim Bardhhaman, West Bengal, India, also revealed fear of side effects (42.7%) and ignorance about availability (37.9%) as the common reasons [34].

Women can experience unfulfilled need while they are young or old. According to the study's findings, unmet needs and women's age have a substantial association; the older a woman was, the higher her likelihood of having an unmet need was. The greatest unmet need was reported by 51.1% of respondents between the ages of 33 to 42 years. In a separate study, women between the ages of 35 and 44 were more likely to experience unmet demands. The need for family planning increases as a woman's age increases [29].

The highest unmet need was observed in the respondents with primary school education and below, i.e., 41%. Our findings are in line with the study of Wolde *et al*., he found that the unmet needs for modern contraceptives was higher among women unable to read and write [27]. Another study done in rural Maharashtra (2017) revealed that unmet needs were highest in women with a secondary school certificate and above [42]. They might be readily persuaded by family members to choose not to take contraceptives, whereas educated women intended to get pregnant on purpose rather than by accident and had greater access to family planning.

In the current study, the percentage of respondents with unmet needs was higher among those whose husbands had a secondary education (31.6%). These findings differ from those of Adel N *et al*., who found that the illiteracy rate was considerably higher among husbands of women with unmet needs (28.7%) [28].

The respondents in the current study who were housewives showed a higher unmet demand for contraception (31.2%). Which was comparable to a study conducted in Mysuru by Anil D *et al.*, [32]. The need for contraception was greater in 66.7% of respondents whose husbands were employed professionally. A 2016 study in the Ismailia village of Nefesha discovered that the percentage of working husbands was much greater among those with unmet needs than among those who used contraceptives [28].

In the present study, unmet need is more prevalent among respondents from lower socioeconomic classes (29.3%), which is comparable to the research Imran *et al.*, conducted in Pakistan in 2021, which showed that women who are part of the wealthier quantile had a low total unmet need for family planning [31]. This might be the result of their having to reorder their priorities in order to meet their basic requirements, which is made worse by their incorrect notions about family planning.

Mukherjee *et al.*,'s earlier research revealed that the age of the women, their socioeconomic position, and the type of family to which they belonged seemed to be important predictors of unmet need for family planning on multivariable analysis [34].

In my study, the age of the women, their religious affiliation, and the husband's kind of occupation all appeared to be important indicators of the unmet need for contraception.

CONCLUSION

In comparison to national figures, the total unmet demand for family planning in the current study was greater. Age, religion, and the line of work of the husband were discovered to be important contributors to unmet need. Fear of adverse effects and difficulties utilizing contraceptives were the primary causes of unmet need. However, women refused to use any kind of contraception, which highlights the need for bolstering health education and other awareness efforts at the local and national levels.

LIMITATIONS

There were fewer respondents interviewed than the sample size predicted due to the remote location and time restrictions. Social group classification was also done by self-reported data and wasn't cross-checked. The risk of underreporting cannot be ruled out because women may be reluctant to disclose their contraceptive use status because it is a touchy and frequently stigmatized subject among women. However, this type of research frequently uses the personal interview method, which was used in this study.

RECOMMENDATIONS

Community tribal leaders should concentrate on illiterate or less educated women and older women with unmet needs, who are at increased risk due to their lack of knowledge and mistaken belief that they are unlikely to become pregnant. Healthcare workers should also be instructed to provide counselling about the method to be used, potential side effects, how to handle them, what alternatives are available, and when to seek medical advice. Particularly for those with poor education and no employment, husbands should be involved in health education and family planning counselling.

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Contribution of authors:

MD: Conception, design, acquisition of data, data analysis, drafting and final approval.
PDG: Acquisition of data, critical revision and final approval
AD: Data analysis, Interpretation of data and final approval
ZK: Drafting, Data analysis and final approval
UR: Design, drafting and final approval
MASC: Drafting and final approval

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