International Journal of Clinical Science and Medical Research

ISSN(print): 2770-5803, ISSN(online): 2770-582X

Volume 03 Issue 11 November 2023

DOI: https://doi.org/10.55677/IJCSMR/V3I11-02/2023, Impact Factor: 6.967

Page No : 210-222

Unmet Need of Family Planning and Its Associated Factors among Married Tharu Women of Reproductive Age in Bardiya District

Shiva Kumar Chaudhary[1], Aitawari Chaudhari[2], Umesh Gautam[3], Bhuwan Dahit[4]

[1]Health Section, Gulariya Municipality Bardiya Nepal

[2]Health Section, Nepalgunj Sub Metropolitan City Banke Nepal

[3]National Center for AIDS and STDs Control, Ministry of Health and Population, Nepal

[4]Health Section, Rajapur Municipality Bardiya Nepal

ABSTRACT **Published Online: November 28, 2023**

ABSTRACT

Background: Unmet need includes a percentage of women who are not currently using any form of family planning methods and want to stop or delay their childbirth. Married women have an unmet need for spacing or limiting birth in developing countries is over 100 million. In Nepal, still, 24% of married women have an unmet need for family planning services. The reason for the gap is little understood at the Lumbini province level and among Terai janajaties of the Bardiya district. Therefore, this study was designed to assess factors associated with the unmet need of family planning and its prevalence among married Tharu women in the Bardiya district of Nepal.

Methods: A community-based cross-sectional study was conducted in Bardiya district among 341 married Tharu women of age group 15-49 years. Out of eight local bodies of Bardiya district; Badhaiyatal rural municipality, Barabardiya municipality, Thakurbaba municipality and Geruwa rural municipality were selected and the household survey was done randomly for data collection. Westoff model was used for estimation of the prevalence of unmet needs for family planning. The relationship between unmet needs and other variables was assessed through bivariate and multivariate analysis using SPSS version 22.

Results: In the study area, the unmet need for family planning was 27%. The Number of living children (AOR=1.966, 95% CI=1.046-3.695), the number of living sons (AOR=2.877, 95% CI=1.114-7.430) wealth quintile (AOR=3.805, 95%CI=1.873-7.703) and spousal communication (=4.287, 95% CI=1.952-9.413) were found significantly associated with unmet need for family planning.

Conclusion: Although the knowledge of FP methods among study participants was excellent (94.7%), more than half of them felt fear of side effects (51.6%). So, to mitigate the fear of family planning's negative impacts among Tharu women, competent family planning counseling should be provided in an easily understood language, such as Tharu or Nepali.

KEYWORDS:

Unmeet Need, Family Planning, Associated Factors, Tharu Women, Bardiya

1. INTRODUCTION

Family planning allows people to achieve their desired number of children and determine the spacing of their pregnancies. It can be achieved through information, education and therefore the use of family planning methods. Family planning offers a variety of potential benefits which include economic development, maternal and child health, education, and women's empowerment.(1) Family planning methods include a large range of contraceptives-including pills, implants, intrauterine devices, surgical procedures that limit fertility and barrier methods like condoms as well as non-invasive methods such as the calendar method and abstinence. (2) Family planning is a cost-effective intervention that can make an immediate impact on maternal mortality in low-resource settings. Family planning can reduce maternal mortality by reducing the number of

Corresponding Author: Aitawari Chaudhari

Cite this Article: Shiva Kumar Chaudhary, Aitawari Chaudhari, Umesh Gautam, Bhuwan Dahit (2023). Unmet Need of Family Planning and Its Associated Factors among Married Tharu Women of Reproductive Age in Bardiya District. International Journal of Clinical Science and Medical Research, 3(11), 210-222

pregnancies, the number of abortions, and also the proportion of births at high risk.(3) The greater access to family planning information and services reduce maternal deaths by 30% annually, saves the lives of 1.4 million children under 5 annually, save six dollars for each one dollar invested as well as supports to achieve all 17 Sustainable Development Goals by 2030.(4)

A common and useful indicator used to measure a population's need for family planning services is an unmet need. Unmet need refers to the percentage of women who are not currently using any form of family planning methods and want to stop or delay childbearing.(5) An unmet need for family planning consists of two groups of women: those with an unmet need for limiting and those with an unmet need for spacing.(6) Everyday more than 400,000 conceptions take place around the world. Nearly half of these are deliberate, joyful decisions, but the other half are unintentional and many of these are deeply regrettable.(7)

The total number of Women of the Reproductive Age Group (15-49 years) worldwide in 2019 was 1.9 billion. Among them, 1.1 billion need for family planning but only 842 million are using family planning methods and 270 million have an unmet need for family planning.(8) In South Asian countries, nearly 41 million women like to delay their next birth for more years or want to stop childbearing, but are not using any family planning methods. Over 100 million married women in underdeveloped nations have unmet needs for child spacing or birth control.(7)

In Nepal, 53% of married women are using any family planning methods. Still, 24% of married women have an unmet need for family planning services in which 8% want to delay childbearing whereas 16% want to stop childbearing.(9) Unmet need for family planning varies by province. The province that has the lowest unmet need for family planning is province 3 (20%) whereas province 4 has the highest unmet need (30%). Modern contraceptive use is highest among married women with three to four living children (59%). The unmet need for spacing is highest among married women of age 15-19 (32%), while the unmet need for limiting is highest among the age group of 30-34 (23%). (10) In Lumbini province of Nepal, 28% of married women have an unmet need for family planning services. Only 43% are using any modern contraceptive method in contrast to 76% demand for family planning.(10) Moreover, the contraceptive prevalence rate in the Bardiya district is 54.17%, which is slightly higher than the national figure. (11) The available evidence reveals that unmet need is higher even though extensive family planning program in Nepal. Mean age at marriage below legal age, low female educations as well as gender discrimination are the factors responsible for unmet needs.(12)

It is assumed that, marginalized groups and groups from the hard-to-reach area, including the Tharu community, remain underserved from FP services. Tharus are an indigenous group of the Terai region of Nepal and constitute 6.75% of the total population.(13) However, the reason for the gap is little understood at the Province level and among Terai janajaties of Bardiya district. There is no evidence of an unmet need for contraception among the Tharu communities of the Bardiya district. Thus, the findings of this study would provide up-to-date information on factors associated with the unmet need of family planning and its prevalence among married Tharu women in the Bardiya district of Nepal. So, by identifying the factors contributing to unmet needs, this research will help towards the future design of family planning services among culturally diverse Tharu communities.

2. MATERIALS AND METHODS

Community-based descriptive cross-sectional study design was applied to identify the factors associated with unmet need of family planning. Multi-stage random sampling was applied to select the study participants. The study population for this study was married Tharu women of reproductive age (15 to 49 Years) which was estimated on the basis of target population obtained from HMIS section of DoHS (FY 2073/74). Tharu women of reproductive age with the history of mental problem as reported by her family member and Tharu mothers who migrated out or immigrated to the study area during the period of data collection were excluded from the study. Initially, ethical approval was taken from Institutional Review Board (IRB) of Institute of Medicine, Maharajgunj Medical Campus, Kathmandu (Ref no. 62/074/075). At the field level, approval was sought from District Health Office (DHO) of Bardiya and subsequently from respective ward office where data collection was carried out. During the time of data collection, the objectives of the study were shared and written informed consent was obtained from each respondent. The participant information's were kept confidential. After taking ethical approval, a structured interview questionnaire was implemented as the tool for the study. Data collection tools were developed based on unmet need of family planning developed by the WHO, articles related to unmet need of FP and Nepal demographic health survey. The tool was adapted with some modification to national context and used in Tharu language for actual field study. The prevalence of unmet need for family planning in the previous NDHS report (2016), which was reported to be 27.9% for the Lumbini province of Nepal, was used in the formula for proportion to determine the sample size. (10). Assuming an absolute precision of 5%, at 95% confidence level, the sample size was 310 and by adding 10 percent non-response rate, the required total sample size was estimated as 341.

Sampling Techniques

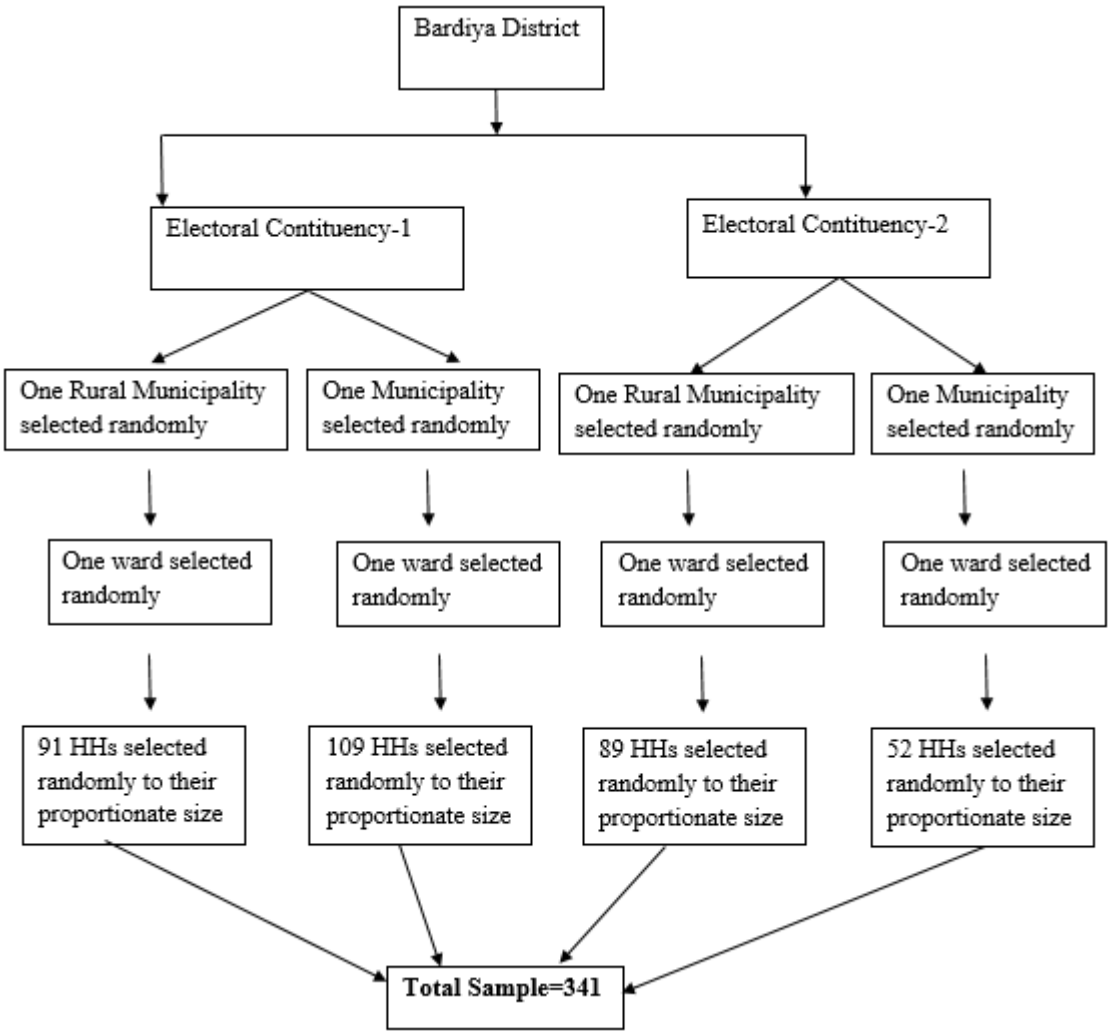
The Sampling method for the study was multi-stage random sampling. Bardiya district was selected purposively for the study. It consists of 2 electoral constituencies in the recent federal structure. One municipality and one rural municipality were selected randomly from each electoral constituency. As the Gulariya municipality is the oldest municipality in the district, its demographic, socio-economic and administrative characteristics differ from the rest of the new municipalities and rural municipalities; therefore, the Gulariya municipality was excluded from the study. From the selected municipalities, one ward was selected randomly. The characteristics of the wards in selected municipalities are similar to socio-demographic characteristics, such as the estimated number of residential households and population. This is supported by the sampling procedure followed in NDHS 2016.

After that, the proportionate random sampling was used and the household survey was conducted in communities of representative wards. As the sampling frame of married Tharu women of Bardiya was not available, the list of households was collected and the samples were taken randomly from the sampling frame. If the Married Women of Reproductive Age (MWRA) were not available in the selected household, then the subsequent household nearest to the first Household (HH) was selected. Further, in the case of more than one married woman in one household, the youngest married woman was selected. Married Tharu women of respective wards were calculated based on the target population estimated by the department of health service, HMIS section (FY 2073/074).

Determination of sample household

Table 1: Determination of sample household

Electoral Constituency	Rural/Municipality	Ward No.	No. of HHs	Percent	Sampled HHs
1	Badhaiyatal	9	1191	26.63	91
1	Barabardiya	10	1436	32.09	109
2	Thakurbaba	7	679	15.17	52
2	Geruwa	6	1168	26.11	89
Total			4474	100	341



Data Processing and Analysis

The questionnaires were checked at the time of data collection for completeness of data. The data was edited on the same day of data collection for improving completeness and clarity. Data entry was done in EpiData 3.1 with check file controlling the entry of illegal values. Thus entered data was exported to Statistical Package for Social Sciences (SPSS) version 22. Data cleaning was done using technique of rearranging data in ascending and descending order.

Descriptive and bivariate analysis was done based on the objective of the study. Mean and standard deviation were calculated for independent variables such as age, age at marriage, parity, number of family members, and number of living children. Similarly, frequency and percentage of all the study variables were determined. Knowledge on family planning was determined based on the calculated score. Based on the nature of data, confidence interval was calculated for categorical data. Chi-square test was applied for bivariate analysis to test the existence of significant association between unmet need and selected factors. The p-value of<0.05 was considered to be significant.

Secondly, the significant variables (p-value<0.10), observed in bivariate analysis was subsequently included in multivariate analysis. Logistic regression model was applied to examine independent associations between explanatory variables and a dependent variable (unmet need).

3. RESULTS

Socio-demographic characteristics of respondents

Table 2 presents the socio-demographic characteristics of the study population. Out of the 341 respondents, majority i.e. 62.5% were of age 20-29 years. The mean age of the respondents was 26.78 years with standard deviation of 6.37 years. The median age at marriage was 18 years. The majority of the respondents i.e. 63% were living in joint family. About half (49.3%) women had two and more children

. Similarly, the women who had one son were 44.9% followed by those having two or more living sons (27.9%).

Table 2: Distributions of socio-demographic characteristics of respondents (N=341)

Variables	Number	Percent
Age (In Years)		
<20	22	6.5
20-29	213	62.5
30-39	84	24.5
40-49	22	6.5
Mean age ±SD	26.78+6.371	
Age at marriage (In years)		
≤18	186	54.5
>18	155	45.5
Median age at marriage	18	
Family Type		
Nuclear	123	36.1
Joint	215	63.0
Extended	3	0.9
No. of living children		
One child	141	41.3
No child	32	9.4
Two and more	168	49.3
No. of living son		
One	153	44.9
Two and more	95	27.9
No one	93	27.3

Socio-economic characteristics of respondents

Table 3 depicts the socio-economic characteristics of the respondents. The wealth quintile was calculated using Principle Component analysis. One third of the participants were poor (32.3%). More than two third (68.6%) of the participants had any formal education followed by 31.4 percent who were illiterate or taken informal education. More than half of the respondents (56.3%) were involved in agricultural work.

Table 3: Distributions of socio-economic characteristics of respondents (N=341)

Variables	Number	Percent
Wealth quintile		
Poor	110	32.3
Middle	123	36.1
Rich	108	31.7
Educational Status		
Illiterate/No Formal education	107	31.4
Any formal education	234	68.6
Occupation		
Agriculture	192	56.3
Housewife	101	29.6
Labor	22	6.5
Service	15	4.4
Business	11	3.2

Service related characteristics

Table 4 shows service related characteristics that include geographical accessibility and sex of service provider. More than two thirds (70.1%) of the respondents needed to walk no more than 30 minutes to reach to the closest health facility. Similarly, majority of the clients (86.5%) preferred female service provider at health facility.

Table 4: Distribution of service related characteristics (N=341)

Variables	Number	Percent
Geographical accessibility		
≤30 Minutes	239	70.1
>30 Minutes	102	29.9
Sex of service provider		
Female	295	86.5
Male	46	13.5

Client related characteristics

Table 5 illustrates the client related characteristics of the study population. The majority of respondents stated that they are familiar with almost all modern contraception. However, merely 17.9 percent of those surveyed said they were familiar with emergency contraception. Overall, almost 95 percent had good knowledge on FP methods. More than half (51.6%) women did not have perceived fear of side effects. Majority of the women (84.8%) had good spousal communication on use, choice and side effects of family planning methods.

Table 5: Distribution of client related characteristics (N=341)

Characteristics	Number	Percent
Number of FP methods known by women		
Female sterilization	313	91.8
Male sterilization	302	88.6
IUCD	298	87.4
Depo	334	97.9
Implant	308	90.3
Pills	331	97.1
Condom	339	99.4
Emergency contraceptive	61	17.9
Knowledge of FP methods		
Poor	18	5.3
Good	323	94.7
Felt fear of side effects		
Yes	165	48.4
No	176	51.6
Spousal communication		
Poor	52	15.2
Good	289	84.8

Unmet need for family planning

Table 6 shows the status of unmet need for family planning. The unmet need for family planning was almost one fourth (27%). Among total unmet need, the unmet need for spacing was 19.4% and unmet need for limiting was 7.6%. Out of total respondents 21.4 percent women were pregnant. Regarding the feeling about pregnancy or childbirth only 7.4 percent had their mistimed pregnancy and no one had unwanted pregnancy. Among non-pregnant women, about one fourth women (26.3%) wanted no more pregnancy and almost two third women (64.6%) wanted to become pregnancy later. Likewise, few women (9.1%) wanted pregnancy soon.

Table 6: Distribution of status of unmet need for family planning

Characteristics	Number	Percent
Currently pregnant (n=126)		
Yes	27	21.4
No	99	78.6
Feeling about pregnancy (n=27)		
Wanted	25	92.6

Mistimed	2	7.4
Non-pregnant/Non-amenorrhoeic (n=99)		
Wanted pregnancy soon	9	9.1
Want no more pregnancy	26	26.3
Want pregnancy later	64	64.6
Need of family planning (n=307)		
Met need	215	63
Unmet need	92	27
Total demand for family planning	307	90
Types of unmet need (n=92)		
Unmet need for spacing	66	19.4
Unmet need for limiting	26	7.6
Total unmet need	92	27

The following figure shows the brief calculation of unmet need:

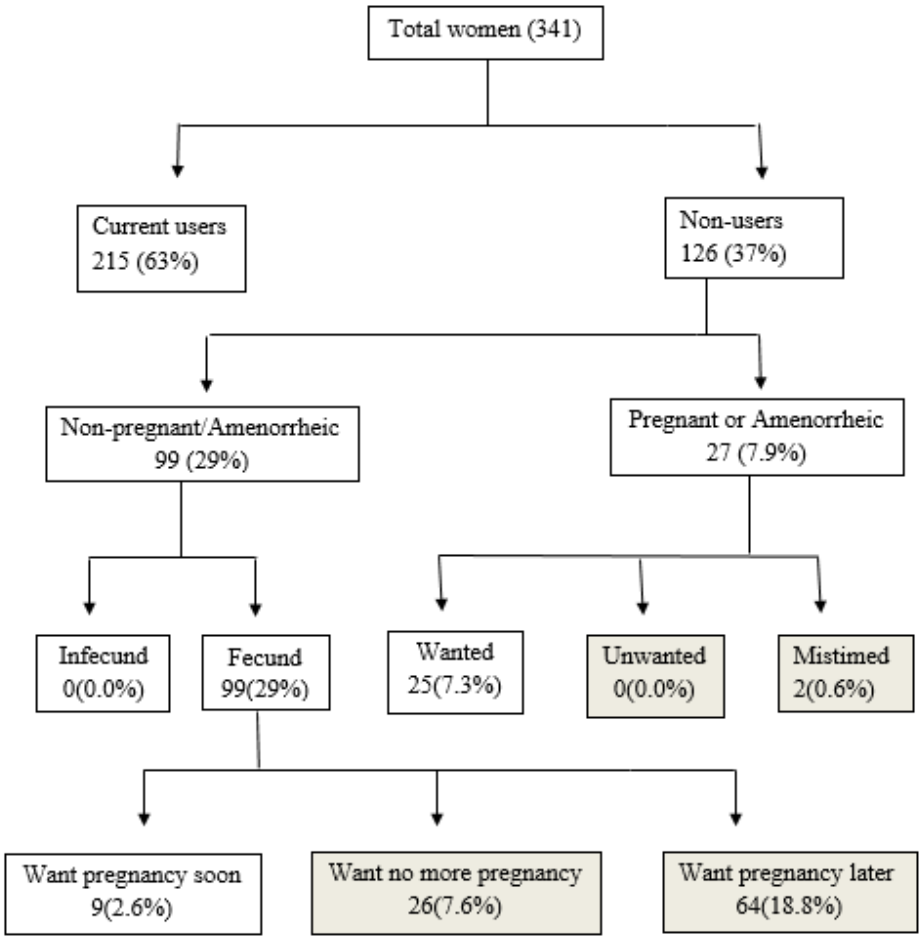


Figure 2: Westoff model for unmet need.

Total unmet need = want no more pregnancy (7.6%) + want pregnancy later (18.8%) + unwanted pregnancy (0.0%) + mistimed pregnancy (0.6%) = 27%

Association of socio-demographic characteristics with unmet need

Table 7 depicts the association of socio-demographic variables with unmet need of family planning. In the Chi-Square test of socio-demographic factors and unmet need of family planning, the significant association was found with number of living children (χ^2 =14.025, p-value <0.001) and number of living sons (χ^2 =20.777, p-value <0.001). However, some variables such as age, age at marriage and family type were not significantly associated with unmet need of family planning.

Table 7: Association of socio-demographic characteristics with unmet need

Characteristics	Unmet need		χ^2	p- value
	Yes n(%)	No n(%)		
Age				
≤24 year	44 (30.1)	102 (69.9)	1.292	0.256
25 year and more	48 (24.6)	147(75.4)		
Age at marriage				
≤18year	49 (26.3)	137 (73.7)	0.84	0.772
>18 year	43 (27.7)	112 (72.3)		
Family type				
Joint/Extended	32 (26.0)	91 (74.0)	0.91	0.763
Nuclear	60 (27.5)	158 (72.5)		
No. of living children				
None	5 (15.6)	27 (84.4)	14.025	<0.001*
One	53 (37.6)	88 (62.4)		
Two and more	34 (20.2)	134 (79.8)		
No of living sons				
No son	41 (44.1)	52 (55.9)	20.777	<0.001*
One	36 (23.5)	117 (76.5)		
Two and more	15 (15.8)	80 (84.2)		

*Statistically significant at 95 % CI

Association of socio-economic characteristics with unmet need

Table 8 shows the association of socio-economic characteristics (Wealth quintile, Educational status and Occupation of respondents) with unmet need of family planning. In the Chi-square test, the significant association was found in wealth quintile (χ^2 =15.019, p-value =0.001) and women's occupation (χ^2 =6.593, p-value=0.037). However, education of women was not significantly associated with unmet need for family planning.

Table 8: Association of socio-economic characteristics with unmet need

Characteristics	Unmet Need		χ^2	p- value
	Yes (%)	No (%)		
Wealth quintile				
Poor	44 (40.0)	66 (60.0)	15.019	0.001*
Middle	29 (23.6)	94 (76.4)		
Rich	19 (17.6)	89 (82.4)		
Educational status				
Illiterate/ no formal education	27 (25.2)	80 (74.8)	0.241	0.623
Any formal education	65 (27.8)	169 (72.2)		
Occupation				
Housewife	36 (35.6)	65 (64.4)	6.593	0.037*
Self employed	50 (54.2)	153 (75.4)		
Others employed	6 (16.2)	31 (83.8)		

*Statistically significant at 95 % CI

Association of client-related characteristics with unmet need

Table 9 illustrates the association of client-related characteristics (knowledge about family planning methods, spousal communication and fear of side effects) with unmet need of family planning. In the Chi-square test, the significant association was found in spousal communication (χ^2 =9.269, p-value=0.002) and fear of side effects (χ^2 = 11.571, p-value=0.001). However, knowledge about family planning

methods was not found significantly associated with unmet need of family planning.

Table 9: Association of client-related characteristics with unmet need

Characteristics	Unmet need		χ^2	p- value
	Yes (%)	No (%)		
Knowledge on FP methods				
Poor	7 (38.9)	11 (61.1)	1.368	0.242
Good	85 (26.3)	238 (73.7)		
Spousal communication				
No	23 (44.2)	29 (55.8)	9.269	0.002*
Yes	69 (23.9)	220 (76.1)		
Fear of side effects				
Yes	23 (46.9)	26 (53.1)	11.571	0.001*
No	69 (23.6)	223 (76.4)		

*Statistically significant at 95 % CI

Association of service-related characteristics with unmet need

Table 10 reveals the association of services related characteristics (geographical accessibility and sex of service provider) with unmet need of family planning. In the Chi-square test, geographical accessibility was found significantly associated with the unmet need of family planning (χ^2 =4.014, p-value=0.045). However, sex of service provider was not significantly associated with unmet need of family planning.

Table 10: Association of service-related characteristics with unmet need

Characteristics	Unmet need		χ^2	p- value
	Yes (%)	No (%)		
Geographical accessibility				
Walking distance > 30 min.	20 (19.6)	82 (80.4)	4.014	0.045*
Walking distance≤ 30 min.	72 (30.1)	167 (69.9)		
Sex of service provider				
Male	15 (32.6)	31 (67.4)	0.855	0.355
Female	77 (26.1)	218 (73.9)		

*Statistically significant at 95 % CI

Adjusted relationship between explanatory variables and unmet need of family planning

Logistic regression analysis was carried out to examine the independent effect of each of the significant variables. Those variables found to be associated with unmet need in bivariate analysis at p value≤0.10 was considered for multivariate analysis. Correlations between the predictor variables were checked. One of the variables (fear of side effects) had significant multicollinearity and hence was excluded from analysis. The collinearity diagnostics was rerun and none of the variables showed multicollinearity as none of the variables had tolerance value less than 0.1 and Variance Inflation Factors (VIF) more than 10. Binary logistic regression was applied to get the final model. Adjusted odds ratio was calculated to measure the net effect size of explanatory variables.

Table 11 represents the distribution of multivariate analysis where number of living children, number of living sons, wealth quintile and spousal communication were found significantly associated with unmet need of family planning. The women with one child were 1.9 times more likely (AOR=1.966; CI=1.046-3.695) to be associated with unmet need of family planning in comparison to women having two or more living children. The odds of unmet need were 2.9 times more likely (AOR=2.877; CI=1.114-67.430) among women with no son as compared with women having two and more sons. Furthermore, poor women were 3.8 times more likely (AOR=3.805; CI=1.873-7.703) to have unmet need compared to women with rich socio-economic status. Similarly, the odds of having an unmet need was 4.3 times more likely among women with poor spousal communication (AOR=4.287; CI=1.952-9.413).

Table 11: Adjusted relationship of explanatory variables and unmet need for family planning

Explanatory Variables	Crude OR	95% CI	Adjusted OR	95% CI	Beta coeff.
Number of living children					
None	0.730	0.262-2.036	0.453	0.121-1.700	-0.792
One	2.374	1.429-3.944	1.966*	1.046-3.695	0.676
Two or more				Ref.	
No of living sons					
None	4.205	2.116-8.357	2.877*	1.114-7.430	1.057
One	1.641	0.843-3.194	1.419	0.577-3.487	0.350
Two and more				Ref.	
Wealth quintile					
Poor	3.123	1.671-5.835	3.805*	1.873-7.703	1.336
Middle	1.445	0.757-2.760	1.764	0.869-3.581	0.568
Rich				Ref.	
Occupation					
Housewife	2.862	1.091-7.506	2.524	0.911-6.997	0.926
Self employed	1.688	0.666-4.745	1.304	0.483-3.522	0.265
Others employed				Ref.	
Spousal Communication					
Poor	2.529	1.373-4.656	4.287*	1.952-9.413	1.455
Good				Ref.	
Geographical accessibility					
Distance > 30 min	0.566	0.323-0.992	0.542	0.285-1.029	-0.613
Distance ≤ 30 min				Ref.	
Constant					-2.972

*Statistically significant at 95 % CI

4. DISCUSSION

Prevalence of unmet need for family planning

The current study revealed that 27 percent of married Tharu women of reproductive age in Bardiya district at the time of survey had unmet need for family planning. Among them unmet need for spacing was twice more than unmet need for limiting. Met need was found more than half (63%) and total demand for family planning was 90 percent. The total unmet need for family planning in this study was nearly same with province five (27.9%) and greater than national (24%) scenario in 2016.(10) Similar type of study done in Dang district of Nepal among married Tharu women which showed 49% unmet need for family planning out of 96% of total family planning demand.(14) This high unmet

need from the current study could be due to geographical accessibility. Bardiya is plane area whereas Dang occupies plane and mountain area. So it is easier to take Family Planning services in Bardiya as compared to Dang. Another study conducted in Sunsari district, eastern region of Nepal documented slightly lower (25%) unmet need than the present study.(15)This might be due to Tharu being the marginalized community. Some studies conducted in other countries also showed nearly similar results such as Nigeria, Ethiopia and India.(16–18).

Factors associated with unmet need for family planning

The study showed that different exploratory variables namely number of living children, number of living sons, occupation of women, knowledge about family planning methods, spousal communication and geographical accessibility were significantly associated with unmet need of family planning. After controlling the effect of other variables in multivariate analysis, number of living children, number of living sons, wealth quintile and spousal communication were found significantly associated with unmet need for family planning.

The present study revealed that women having one living children were about twice more likely (AOR=1.966; CI=1.046-3.695) to be associated with unmet need in comparison to women having two or more living children. The reason for high unmet need among women with one child may be family pressure for having male child, non-supportive behavior of husband regarding the use of family planning methods. A cross sectional study conducted to investigate associated factors of unmet need among married women in Misha District, Southern Ethiopia revealed that when number of parity increase unmet need for FP also increase. The same study showed that women with five or more children were 3.3 times more likely to be unmet need (OR=3.30; CI=2.03-5.35)(19). Similar kind of study conducted in Pakistan showed that women with 5 or more children were almost thrice (AOR 2.89; CI=2.83-2.96) more likely to be living with unmet need compare with women having two or less children.(20) These differences may be due to the socio-cultural and behavioral differences among Tharu ethnic groups.

This study showed that women with no son were 2.877 times more likely (AOR=2.877; CI=1.114-7.430) to have unmet need in comparison to women with two or more sons. A study conducted in India by Nazir S et al. also revealed that preference of male child was highly associated with unmet need of family planning.(21) A study conducted in Nepal showed that contraceptives use varied widely according to sex composition of child. The study observed sex preference decreases contraceptive use by 24% and increases the total fertility rate by more than 6%.(22) A cross-sectional study conducted to determine the prevalence and determinants of unmet need for family planning in a district of eastern region of Nepal showed the strong association of gender preferences towards male child and unmet need. The study revealed that the odds of unmet need were 2.24 times higher in women with four or more children and 2.21 times higher in women with 2 children. The association was highly significant. The study also proved that increase in the unmet need with increase in the number of children, a direct relationship of gender preferences towards male child. The percent of unmet need for family planning was high in those who have two, three and four plus daughters but no sons i.e. 47%, 40% and 33% respectively. The study population with two, three and four plus sons but no daughters had less unmet need, i.e., 22, 18 and zero percent respectively. The differences were statistically significant. (23) This might be due to cultural norms around son preference or as suggested by others, the interest for more sons could be based on subsistence reasons, such as economic security and maintaining their status within the traditional family structure.

Similarly, the present study showed that women living in first and second wealth quintile which was categorized as poor were 3.805 times more likely (AOR=3.805; CI=1.873-7.703) to be associated with unmet need of family planning as compared to rich women. A study conducted by Waqas et. al in September 2008 to March 2009 revealed that in comparison to the women living in fifth or highest wealth quintile, unmet need was found higher among the women living in the first or lowest wealth quintile(20). But the further analysis of Nepal Demographic and Health Survey 2011 showed that unmet need tends to have an inverse relationship with wealth quintile, particularly among women living together with their husbands at the time of the survey. The unmet need stagnated or increased among married women of all wealth quintiles in between 2006 and 2011. The largest increase in unmet need occurred among women in the middle wealth quintile.(24) The reason for that might be poor Tharu women have not adequate time for accessing family planning services. They might be busy for agricultural or labor work.

This study revealed that the odds of being unmet need of family planning among women who had not good communication with their husband about family planning methods were four times higher as compared with their counterparts. A similar study conducted in Misha District, Southern Ethiopia revealed that women who had discussion with health extension and partner [AOR (95%CI)= 0.18(0.12-0.27)] was become significantly associated with unmet need for contraceptive use among currently married women.(25) A study conducted in Tigray Region, Northern Ethiopia found the odds of using contraceptive among women who had

discussion with their husband about family planning was three times more as compared with their counterparts (AOR= 2.9, 95% CI: 2.2,3.85)(26). This indicates that male involvement in family planning could be a factor in increasing the number of family planning users. This implies family planning programs should consider involving men as part of their intervention to enhance the proportion of family planning users.

5. CONCLUSION

The study showed that about one in every four married Tharu women had unmet need for family planning. Unmet need for spacing was twice more than unmet need for limiting. Unmet need for family planning was significantly higher among women with one child. Similarly, it was influenced by women with no living sons, poor women, and poor spousal communication. The study found out that despite the women having good knowledge about family planning methods, similar was not in practice resulting high unmet need among married Tharu women in the study area. The unmet need for family planning was found higher in the study area than national level and slightly lower than Lumbini Province.The concluding framework of the study has been given below:

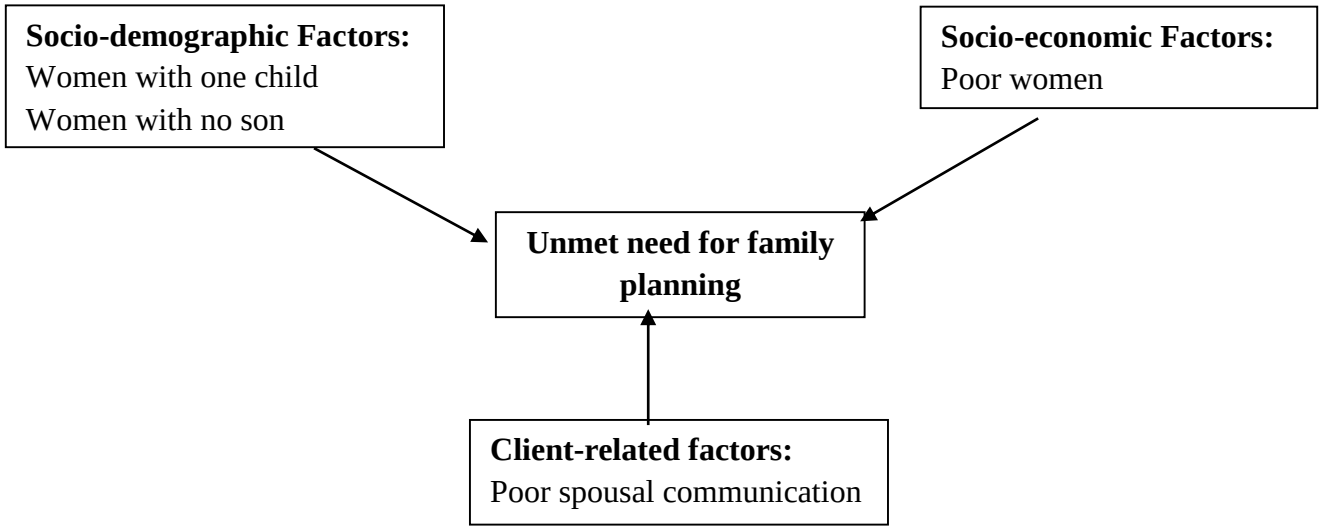


Figure 3: Final working framework

6. RECOMMENDATION

The study documented that unmet need for spacing is higher than limiting. Hence, family planning program should address women with unmet need focusing long acting reversible contraceptives family planning methods. Although the knowledge of FP methods among study participants was excellent but more than half of them felt fear of side effects. So, to mitigate the fear of family planning's negative impacts among Tharu women, competent family planning counseling should be provided in an easily understood language, such as Tharu or Nepali. This study was done only to investigate the selected demographic, socio-economic, health service and client related factors. The study did not take into account the fecundity of the women.

Conflicts of Interest

The authors of this study declare no conflict of interest.

Acknowledgments

The Authors would like to thank District Health Office Bardiya team for their support during the study. Authors also would like to express their deepest gratitude to all of the participants for cooperating in the survey and devoting their valuable and precious time for providing the important information, support and cooperation during the field work.

REFERENCES:

1. WHO-RHR-19.18-eng.pdf [Internet]. [cited 2022 Jul 8]. Available from: https://apps.who.int/iris/bitstream/handle/10665/329884/WHO-RHR-19.18-eng.pdf
2. Family planning [Internet]. United Nations Population Fund. [cited 2022 Jul 8]. Available from: https://www.unfpa.org/family-planning
3. Chan M. Health and the MDGs. UN Chronicle. 2007 Dec 31;44(4):30–2.
4. Family Planning and Reproductive Health [Internet]. 2021 [cited 2022 Jul 9]. Available from: https://www.usaid.gov/global-health/health-areas/family-planning
5. AS25[12June2012].pdf [Internet]. [cited 2022 Jul 9]. Available from: https://www.dhsprogram.com/pubs/pdf/AS25/AS25[12June2012].pdf
6. Unmet need for family planning – DataForImpactProject [Internet]. [cited 2022 Jul 9]. Available from: https://www.data4impactproject.org/prh/family-planning/fp/unmet-need-for-family-planning/

7. Kabir A, Islam MN, Chowdhury AA, Das S, Sadeque MZ. Unmet Need for Family Planning among Married Women: Experience from Rural and Urban Communities. Faridpur Med Coll J. 2013 Nov 7;8(1):26–30.
8. Family planning/contraception methods [Internet]. [cited 2022 Jul 8]. Available from: https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception
9. NDHS 2016 key findings.pdf [Internet]. [cited 2022 Jul 9]. Available from: https://nepal.unfpa.org/sites/default/files/pub-pdf/NDHS%202016%20key%20findings.pdf
10. The 2016 Nepal Demographic and Health Survey (2016 NDHS)_Sagun's Blog.pdf [Internet]. Google Docs. [cited 2022 Jul 8]. Available from: https://drive.google.com/file/d/1DpvHNzgF68Z6outPy-55UDgG-GV6dDkk/view?usp=sharing&usp=embed_facebookDoHS_Annual_Report_2072_73.pdf [Internet].
11. Google Docs. [cited 2022 Jul 9]. Available from: https://drive.google.com/file/d/0BxYPsAJu5Bn_U2NIdm9Ca3V0Smc/view?resourcekey=0-jha8mDl_MtBe4oBU894yWA&usp=embed_facebook203-210.pdf [Internet]. [cited 2022 Jul 10]. Available from: http://www.kumj.com.np/issue/14/203-210.pdf
12. Nepal_Population_Report_2011.pdf [Internet]. [cited 2022 Jul 10]. Available from: http://www.nhssp.org.np/NHSSP_Archives/monitoring/Nepal_Population_Report_2011.pdf
13. 9312687.pdf [Internet]. [cited 2022 Jul 10]. Available from: https://downloads.hindawi.com/journals/ijrmed/2018/9312687.pdf
14. Gp B, Kc P. Prevalence and determinants of unmet need for family planning in a district of eastern region of Nepal. :8.
15. Igwegbe O, Ugboaja O, Monago N. Prevalence and determinants of unmet need for family planning in Nnewi, south-east Nigeria. :5.
16. G/Meskel AT, Desta HO, Bala ET. Factors Associated with Unmet Need for Family Planning among Married Reproductive Age Women in Toke Kutaye District, Oromia, Ethiopia. Int J Reprod Med. 2021 Mar 26;2021:5514498.
17. Vishnu Prasad R, Venkatachalam J, Singh Z. Unmet Needs of Family Planning Among Women: A Cross-Sectional Study in a Rural Area of Kanchipuram District, Tamil Nadu, South India. J Obstet Gynaecol India. 2016 Oct;66(Suppl 1):488–93.
18. Doyore - 2014 - Unmet Need for Family Planning and Associated Fact.pdf [Internet]. [cited 2022 Jul Available from: https://www.longdom.org/open-access-pdfs/unmet-need-for-family-planning-and-associated-factors-among-currently-married-women-in-misha-district-southern-ethiopia-a-cross-sectional-study-2167-0420.1000165.pdf
19. Hameed W, Azmat SK, Bilgrami M, Ishaqe M. Determining the factors associated with Unmet need for family planning: A cross-sectional survey in 49 districts of Pakistan. 2011;(1):8.
20. Nazir S, Mittal A, Anand BK, Goel R, Singh J, Rashid A. DETERMINANTS OF UNMET NEED FOR FAMILY PLANNING IN A DEVELOPING COUNTRY: AN OBSERVATIONAL CROSS SECTIONAL STUDY. 2015;6(1):6.
21. Leone T, Matthews Z, Zuanna GD. Impact and Determinants of Sex Preference in Nepal. International Family Planning Perspectives. 2003;29(2):69–75.
22. 203-210.pdf [Internet]. [cited 2022 Jul 11]. Available from: http://www.kumj.com.np/issue/14/203-210.pdf
23. fa74.pdf [Internet]. [cited 2022 Jul 11]. Available from: https://dhsprogram.com/pubs/pdf/fa74/fa74.pdf
24. Unmet Need for Family Planning and Associated Factors among Currently Married Women in Misha District, Southern Ethiopia: A Cross Sectional Study [Internet]. [cited 2022 Jul 11]. Available from: https://www.longdom.org/open-access/unmet-need-for-family-planning-and-associated-factors-among-currently-married-women-in-misha-district-southern-ethiopia-a-cross-sectional-study-2167-0420.1000165.pdf
25. Medhanyie AA, Desta A, Alemayehu M, Gebrehiwot T, Abraha TA, Abrha A, et al. Factors associated with contraceptive use in Tigray, North Ethiopia. Reproductive Health. 2017 Feb 23;14(1):27.