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Original Research Article

Prevalence and factors associated with unmet need for family planning among married women of reproductive age in Devchuli municipality, Nepal

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ABSTRACT

Background: Family planning (FP) is significant in enhancing maternal health, promoting gender equality, and decreasing poverty. Globally, 164 million women still have an unmet need for FP. It was approximately 21% in 2021 in Nepal. This leads to unintended pregnancies, unsafe abortions, and increased maternal mortality. The objective of this study was to determine the prevalence and factors associated with unmet need of FP in Devchuli municipality, Nepal.
Methods: A cross-sectional study was conducted from July to September 2024. Data were collected by face-to-face interviews of the 189 married women of reproductive age using the structured questionnaire. Data was analysed by SPSS.
Results: 47.6% of the respondents did not use any FP methods during the survey. 53% wanted a permanent FP method to limit, and 47% wanted to space the child's birth by using injectables, pills, and long-acting contraceptives. The highest unmet need was found among the women belonging to Dalit (59%), followed by Janajati (31%), Brahaman/Chhetri, and others (10%). It was highest among the illiterate (72%, $p<0.05$, CI: 95%). 43.25% women did not use contraceptives due to the fear of the side effects ($p<0.05$, CI:95%), followed by the opposition by husband (27.46%, $p<0.05$, CI:95%), sex composition of child (21.49%), and sex composition of the service providers (7.8%).
Conclusions: The prevalence of unmet need for FP was highest among the Dalit and illiterate women. The side effects of the contraceptives and the obstruction by their husbands were statistically significant to the unmet need for FP.

Keywords: Family planning, Unmet need, Women

INTRODUCTION

The concept of 'unmet need for family planning' is characterized by the ratio of fecund, sexually active women, currently in a marriage or union, who express a desire to postpone or limit their childbearing, while not employing any contraceptive methods.[1] Women are seen as having an unmet need for spacing if they do not wish to conceive within the next two years, while being at risk of not employing contraception. In another perspective, it is identified as an unmet need for limiting or terminating when women are at risk of pregnancy, are not using

contraception, and do not want any more children, are pregnant with an unwanted pregnancy, or are undergoing postpartum amenorrhea for up to two years following an unwanted birth and are not using contraception.[2,3] Although the aim of achieving universal access to sexual and reproductive health (SRH) services, including family planning methods, is outlined in the 2030 agenda of the sustainable development goals (goal 3.7).[4] The demand for contraceptives remains significantly unmet in numerous countries.[5-8] Family planning presents various benefits. It aids individuals in steering clear of unintended pregnancies and scheduling births, which in turn lowers pregnancy-related health risks, particularly for adolescent females. Beyond the health aspect, family planning allows women to engage in educational and career opportunities, thereby supporting the well-being of families and communities. In 2021, there were 1.9 billion women of reproductive age (15-49 years) around the world, with 1.1 billion having a need for family planning; of these, 874 million are employing modern contraceptive methods, and 164 million face an unmet need for contraception.[9] At present, 874 million women are using modern contraceptives, and access to family planning bolsters public health, promotes gender equality, strengthens health systems, and stimulates economic development. Additionally, it is expected that by 2030, another 70 million women will have access to these services.[10] Addressing the ongoing need for family planning has consistently been a central emphasis of global health and population strategies for numerous years.[11] Addressing the unfulfilled demand for family planning corresponds with two sustainable development goals (SDGs). SDG 3 emphasizes the promotion of well-being and the assurance of universal access to sexual and reproductive health, while SDG 5 seeks to attain gender equality and empower women and girls by ensuring universal access to sexual and reproductive health services and reproductive rights.[12] Multiple factors affect to fulfilment of the need for family planning in developing countries.[13] In Nepal, various studies derived from the demographic and health survey 2011 have indicated a significant prevalence of unmet need for family planning.[14,15] The recognition of the requirement for family planning services in Nepal dates back to 1958, with the establishment of the Nepal Family Planning Association, a private organization in Kathmandu. The national family planning policy was formally adopted by the government of Nepal in 1965, providing only limited services in the Kathmandu Valley until 1968.[16] Nepal has made a commitment to attain a modern contraceptive prevalence rate (mCPR) of 70% by 2030, rising from 48% in 2016, and has established a goal of reducing unmet family planning needs to 10% or less.[17] A study conducted in Sunsari district of Nepal reflected that nearly 99 percent of women were aware of at least one contraceptive method, while 65 percent had ever utilized a method. The majority of respondents (76%) fell within the age range of 25 to 29 years; had a parity of up to 2 (50%); and were illiterate (32%).[18] A study conducted in Gandaki Province, Nepal, showed the overall unmet need for family planning was recorded at 18.1%, with a predominant focus on spacing (16.5%) rather than limiting births (1.6%). When compared to Brahmin/Chettri women, those from the Dalit ethnic group had markedly higher odds of unmet need (AOR=6.66; 95% CI: 1.98-22.40). Women who attained education at the basic level or below (AOR=0.14; 95% CI: 0.03-0.71) and those with secondary education (AOR=0.20; 95% CI: 0.06-0.64) had significantly reduced odds of unmet need in contrast to their counterparts with university education. Furthermore, women who had no children were more likely to have unmet need (AOR=2.78; 95% CI: 1.09-7.13).[19] A study conducted among the women belonging to the Magar (Janajati) Community in Nawalparasi district found that There were several reasons identified for the non-utilization of family planning methods. The predominant responses included husbands residing in foreign countries (52.7%), followed by opposition from husbands and family members (28.0%), concerns regarding potential harmful effects (26.4%), and 11.0% reported a lack of information and access to family planning services and methods.[20] This study aimed to determine the prevalence of unmet need for family planning among the married women of reproductive age and factors associated with unmet need for family planning in Devchuli Municipality, Nepal.

METHODS

This was a community-based one-shot, cross-sectional, descriptive and quantitative type of research conducted in Devechuli Municipality of Bardaghat Susta East Nawalparasi (Nawalpur) district in Gandaki Province, Nepal, from July to September 2024. Data was collected by face-to-face interview using a structured questionnaire. The questionnaire was developed based on the relevant literature and adopted as per the local context. It was pre-tested and validated.

The target population comprised all married women of reproductive age (15-49 years) who were permanent residents of the municipality. Ethical approval for this study was granted by the department of sociology/anthropology of Tri-Chandra Multiple Campus under Tribhuvan University, Kathamandu, Nepal. All participants were fully informed of the purpose and procedures of the study, and informed consent was obtained before their participation. This study adhered to the ethical guidelines of the Declaration of Helsinki. Throughout the study, we ensured that the rights and privacy of participants were respected and protected.

The sampling frame was established using a comprehensive list of married women obtained from the Municipal Office.

The sample size was calculated using the Cochran formula [i.e.; (n) = z^2pq/d^2] with a confidence interval (z) set at 95%, and an allowable error (d) of 0.5%. The

calculated sample size was 189. The study population was determined by using systematic random sampling methods. Women were excluded if they were unavailable during the data collection period, declined to participate, were currently breastfeeding, or if their husbands had been absent for more than one year. Additionally, women reporting infertility, those who had not conceived in the past four years despite multiple attempts, and individuals with medical conditions potentially affecting study outcomes were excluded.

Data entry and analysis were carried out using SPSS version 20. Descriptive statistics provided a summary of categorical variables. To determine the factors associated with unmet needs for family planning, a multivariate logistic regression analysis was executed. Statistical significance was defined as $p<0.05$.

RESULTS

Background characteristics

Among 189 respondents, 25.4% of the respondents have been found in 20-24 years age group. Similarly, 23.8% of respondents were found in the age group 25-29 years. Around 88% of the respondents were found to be below 40 years old. The mean age of the respondents was 29.27 years, ranging from 17 to 49 years. Most of the respondents (70.9%) got married between the ages of 15-19 years, followed by 20-24 years (21.7%). Around 7% respondents got married below 15 years. Most of the respondents were Hindu (57.1%) followed by Buddhist (23.8%) and Christian (15.9%). The municipality was dominated by the Brahmin community (49.7%) followed by Janajati (24.9%) and Dalit (14.3%).

Table 1: Socio-demographic characteristics of the respondents.

Variables	Number (n=189)	%	P value
Age group (years)			
15-19	11	5.8	
20-24	48	25.4	
25-29	45	23.8	
30-34	33	17.5	
35-39	30	15.9	
40-44	19	10.1	
45-49	3	1.6	
Mean age: 29.27 Range 17-49			
Age at marriage			
Below 15 years	13	6.9	
15-19 years	134	70.9	
20-24 years	41	21.7	
Above 25 years	1	0.5	
Religion			
Hindu	108	57.1	
Buddhist	45	23.8	
Christian	30	15.9	
Others	6	3.2	
Ethnicity			
Brahmin/Chhetri	94	49.7	
Janajati	47	24.9	
Dalit	27	14.3	
Others	21	11.1	
Education status of respondents			
No education	47	24.9	<0.001*
Informal education	18	9.5	
Primary	44	23.3	
Secondary	72	38	
Above secondary	8	4.2	
Occupation of the respondents			
Agriculture	126	66.7	<0.05
Housewife	37	19.6	<0.03
Business	14	7.4	0
Civil servant/private service	9	4.8	0
Labor	3	1.6	0

Note: *-Significant.

24% respondents were uneducated. They were not able to read and write a single sentence. More than 38% of respondents had studied Secondary and more than 4% studied above secondary level. 9.5% were studied from the informal education program. Around half of the respondents had no specific occupation. Agriculture was the occupation of around 67% respondents, followed by housewife (19.6%). Only 4.8% respondents were civil servants, and 7.4% had their own business.

Heard about family planning methods

All respondents had heard about the different types of family planning methods. Most of the respondent's herd about the injectable contraceptive as depo (71%) followed by permanent methods (vasectomy and minilaparotomy) (67%), oral contraceptive pills (61.3%), condom (59.8%), implant and IUCD (5%). 21.5 had heard all type of family planning methods available in the public health facilities in Nepal.

Table 2: Heard about the family planning methods.

Types of FP methods	Frequency (n=189)	%
Injection Depo-Provera	132	71.0
Permanent	125	67.2
Pills	114	61.3
Condom	113	59.8
Norplant	19	10.2
IUCD	9	4.8
All of the above	40	21.5
Source of information		
Health workers/FCHVs	126	66.7
TV/radio	38	20.1
Educational institution	26	13.8
Friends/neighbors	8	4.2
Posters /pamphlets	1	0.5

Table 3: Unmet need for family planning.

Description	Frequency (189)	%
Yes	90	47.6
No	99	52.4

Unmet need for family planning

47.6% of the respondents did not use any FP methods during the survey. Out of the total unmet need, 53% wanted a permanent FP method to limit and 47% wanted to space the child's birth by using injectable, pills, and long-acting contraceptives. The highest unmet need was found among the women belonging to Dalit (59%), followed by Janajati (31%), Brahaman/Chhetri and others (10%). It was highest among the illiterate (72%,). More than 43% of women did not use contraceptives due to the fear of the side effects, followed by the opposition by husbands (27.46%), sex composition of the child (21.49%), and sex composition of the service providers (7.8%).

Factors associated with unmet need for family planning

Logistic regression bi-variant analysis showed that the education status and occupation of the respondents are significantly associated with unmet need for family planning ($p<0.05$, CI: 95%). The fear of the side effects ($p<0.05$, CI:95%), followed by the opposition by husband, sex composition of the child and the sex composition of the family planning service providers ($p<0.05$, CI:95%) were statistically significant with the unmet need for family planning.

Table 4: Types of FP methods used at present.

Methods	Frequency (n=99)	%
Laparoscopy/minilab	48	48.5
Injection Depo-Provera	35	35.4
Condom	9	9.1
Pills	3	3.0
Vasectomy	3	3.0
IUCD	1	1.0

Table 4: Factors associated with unmet need for family planning methods.

Reasons	Number (n=51)	%	P value
Fear of side effects	19	37.25	<0.05
Opposition from the husband	14	27.46	<0.03
Sex composition of the child	13	25.49	<0.02
Sex composition of the heath service provider	5	9.8	0.28

DISCUSSION

The prevalence of unmet need for family planning in this study was 27.6%, which is closely aligned with the results of the studies conducted in Karnataka, India, Pakistan, Gambia, and Myanmar.[21-24] This percentage is slightly higher than the national unmet need for family planning as per the Nepal Demographic and Health Survey 2022, which stands at 20.8%. Nepal has experienced a variable trend in unmet need, decreasing from 32% in 1996 to 25% in 2006, followed by an increase to 28% in 2011, indicating difficulties in maintaining progress.[25] The sustainable development goal is to lower the unmet need to 10% by 2030.[26] This trend challenging to achieve this goal in the given deadline. The study area seems to be behind in achieving the 2025 target of a 15.2% unmet need.

The factors contributing to a greater unmet need in this study site included opposition from husbands, insufficient information and access, sex composition of the family

planning service providers, and concerns regarding adverse effects of the contraceptives. This finding was challenged by a study conducted in Pakistan.[27] Another research effort in the Sunsari district of Nepal revealed that 22% of the unmet need for family planning may be attributed to differences in the study population, study design, data types, and sample size.[18] Importantly, the current study's results were largely consistent with the findings from studies in Dang, Gulmi, Nepal, and urban slums in India.[28-31] This research determined that the age of respondents was statistically not significant. This result contradicts studies conducted in the Gulmi, Dang, and Sunsari districts of Nepal, as well as in rural communities of India. In terms of the education level of respondents, their education, and occupation, there was a statistically significant association ($p<0.05$) with unmet need for FP. This finding is consistent with research conducted among Tharu women in Dang District, Nepal, but inconsistent with findings from urban slums in India and Ethiopia.[28,31,32] The observed variations may be attributed to differences in study areas, ethnic groups, and sampling methodologies.

Furthermore, this research revealed that women without access to information demonstrated a greater probability of experiencing unmet needs for family planning compared to those who had access to the information. These results are consistent with earlier studies carried out in Mozambique and Ethiopia.[33-36] A reasonable explanation for this phenomenon is the ability of media access to challenge existing misconceptions that hinder contraceptive use by promoting behavioral changes. In reference to the 2030 sustainable development goals, the promotion of family planning initiatives and the assurance of universal access to sexual and reproductive health, along with reproductive rights, will broadly enhance gender equality and empower women and girls in Nepal.

Due to the limited resources and limited time to field visit, only one municipality of a district was included in this study. The study was limited only to married women of reproductive age. There may be a response bias and the Hawthorne effect during the data collection. These are the limitations of this study.

CONCLUSION

This research has revealed significant insights regarding the unmet need for family planning. Despite the majority of respondents being educated and having limited access to modern medical services, the unmet need remained prevalent. A considerable number of respondents had xrefrained from utilizing family planning methods due to concerns about potential side effects, coupled with resistance from their husbands, as well as the gender of their children and the gender of the service providers. The majority of unmet needs are related to limiting childbirth. The educational background of women and their awareness of family planning methods did not show a significant correlation with the unmet need for these methods. Nevertheless, the apprehension regarding side effects, spousal opposition, and the gender dynamics of both children and healthcare providers are linked to the unmet need for family planning methods. In light of existing practices, interventions ought to be directed towards a selective methodology rather than a broad, blanket approach. This means that segments of society that lack pertinent knowledge and practices, such as marginalized and inaccessible communities, should be given priority in intervention programs. The effectiveness of communication strategies via mass media and interpersonal education during antenatal visits warrants investigation. Discussions regarding the unmet need for family planning methods should also involve family members and key community figures to prompt them into taking specific actions. The responsibilities of community participants, mass media, educational establishments, local healers, and private healthcare providers must be examined as they are crucial elements linked to the unmet demand for family planning methods within the community. The insights gathered from this study will aid in the development of health interventions aimed at modifying behavior.

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