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Original Research Article

Prevalence, patterns and determinants of unmet needs of contraception among married women in Imphal East district of Manipur: a cross-sectional study

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ABSTRACT

Background: In many countries, unmet need for family planning among pregnant women is a main reason of closely spaced births, child bearing at a very early age, unsafe abortions or physical abuse, all of which are considered as main co-factors to high maternal and infant mortality. Understanding the unmet need of contraception and contraceptive behaviour among married women will help in enhancing the service provision among them. The study was done with the objective to estimate the prevalence of unmet need of contraception and patterns of contraceptive usage among currently married women and to determine the association between unmet need of contraception and some selected variables.
Methods: A cross-sectional study was conducted using pre-tested, semi-structured questionnaire among currently married women. Bivariate and multivariate logistic regression analyses were used to identify factors associated with the unmet need of contraception. A p value of <0.05 was taken as statistically significant.
Results: Out of 300 respondents, more than half (165, 55.0%) had unmet needs of contraception. Age of the participant AOR=1.057 (1.013-1.103), self-employed AOR=0.433 (0.222-0.844), pregnant at present AOR = 7.693 (2.868-20.635), discussing about FP with husband AOR=0.534 (0.305-0.936) and those ever received FP services AOR=2.794 (1.579-4.944) were significantly associated with unmet need of contraception.
Conclusions: Five out of ten women were found to have unmet need for contraception. Awareness programs regarding importance of family planning and various family planning services available at health facilities should be conducted from time to time among the public.

Keywords: Manipur, Married women, Unmet need of contraception

INTRODUCTION

Reproductive health of the women has emerged as a basic right globally. However, various components of reproductive health such as contraceptive behaviour and unmet need of family planning remain unsatisfactory and varies across the world including India.[1] This is further influenced by traditional customs, religious beliefs, and social prejudices.[2]

More than one in ten married or in-union women worldwide experience an unmet need for family planning.[3] Many women in low and middle-income countries would like to limit or delay their pregnancy, but they do not enough access to consistent use of modern contraceptive methods. The concept of unmet need for family planning is focus to reproductive health policies, as it endures serious implications for the women, the child, family and the whole society.[4]

Around 215 million women are said to have an unmet need for modern contraception.[5] According to the NFHS-5, the overall contraceptive prevalence rate is 61.5% among married women age 15-49 years, 19.3% of them using a modern method. In general, 12.7% of currently married women have an unmet need for family planning during 2019-2020. Women who want to avoid pregnancy but are not using an effective method of contraception, account for a large majority (82%) of unintended pregnancies.[6]

In many countries, unmet need for family planning among pregnant women is a main reason of closely spaced births, child bearing at a very early age, unsafe abortions or physical abuse, all of which are considered as main co-factors to high maternal and infant mortality.[7]

Abortion is a major consequence of unintended pregnancy, and in many developing countries that restrict abortion, terminations often are performed under unsafe conditions and result in women dying or suffering serious injuries. Unintended pregnancies can also lead to delayed or no antenatal care, which can pose health risks to both mothers and infants. A better use of family planning could reduce may of these mistimed and unplanned pregnancies, while at the same time it could reduce the number of unsafe abortions as well as the mortality related with child birth.[8-11]

Understanding the unmet needs of contraception and contraceptive behaviour among married women will help in enhancing the service provision among them. Therefore, this study was conducted in Imphal East district of Manipur to estimate the prevalence of unmet needs of contraception and patterns of contraceptive use among married women and to determine association between unmet needs of contraception and some selected variables.

METHODS

A community-based cross-sectional study was conducted among currently married women residing in Imphal East district of Manipur from October to December 2023. Those married women in the reproductive age group of 15- 49 years residing in Imphal East district for the past one year and given consent for participation were included. Women who were seriously ill or mentally challenged, who were not available after two consecutive visits, who have attained menopause and women who have undergone hysterectomy were excluded.

Sample size and sampling

Sample size was calculated using the formula for single proportion: Z^2pq/e^2. Taking the prevalence of 12.2% of total unmet need for Family Planning among currently married women age 15-49 years according to NFHS-5, with an absolute allowable error of 4% and at 95% confidence level and adding for 10% for non-responders, the calculated sample size was found to be 300.[6] The calculated sample size was distributed equally into two strata: urban and rural for the district. From each strata two villages/wards were selected using lottery method. From each selected village/ward, the first household was selected using a random technique. The house nearest to the first house were selected consecutively until the sample size is reached. If there are more than one eligible participant in a household then all eligible participants were included.

Study tool and technique: The study tool was developed after extensive review of literature and peer review by experts. After pre-testing the semi-structured questionnaire consist of three domains-I. Socio-demographic characteristics of the participants, II. Reproductive health characteristic and III. Patterns of contraceptive methods usage. After obtaining informed consent, participants were interviewed face-to-face maintaining privacy.

Operational definition

Unmet need for family planning refers to fecund women who are not using contraception but who wish to postpone the next birth (spacing) or stop childbearing altogether (limiting).

Unmet need for spacing: Women are considered to have unmet need for spacing if they are at risk of becoming pregnant, not using contraception, and either do not want to become pregnant within the next two years, or are unsure if or when they want to become pregnant, pregnant with a mistimed pregnancy, Postpartum amenorrhoeic for up to two years following a mistimed birth and not using contraception.

Unmet need for limiting: Women are considered to have unmet need for limiting if they are at risk of becoming pregnant, not using contraception, and want no (more) children, pregnant with an unwanted pregnancy, postpartum amenorrhoeic for up to two years following an unwanted birth and not using contraception.

Unmet need for family planning is the sum of unmet need for spacing plus unmet need for limiting.

Ethical consideration

The study was approved by the Institutional Ethics Committee vide for proposal No. No.479/92/2023 version 01 submitted on 28/10/2023. Purpose of study was clearly explained to participants. Informed assent was obtained from participants 15-18 years and informed consent from their guardian or legally authorized representative. Informed verbal consent was obtained from participants more than 18 years. Strict privacy and confidentiality was maintained.

Statistical analysis

Data were entered in MS Excel and analysed in SPSS v20. Descriptive statistics such as mean (±SD) and percentages were used to summarize the data. Bivariate and multivariate logistic regression analyses were used to identify the influencing factors of the unmet need for contraception. All independent variables in bivariate analysis with a *p*-value of <0.2 were selected as candidate variables for multivariate logistic regression analysis. The crude and adjusted odd ratios together with their corresponding 95% confidence interval were calculated and interpreted accordingly. The strength of association was determined using the adjusted odds ratio (AOR) with their corresponding 95% confidence interval and a *p*-value of <0.05 in the multivariate logistic regression were considered as a cut-off point to declare a significant association.

RESULTS

Mean age of the participants was 33.48±6.89 years.

Demographic characteristics of the respondents show majority belonged to Islam religion (129, 43.0%), educational status of the participants show that majority studied up to secondary school (149, 49.7%) and majority were homemaker (205, 68.3%) and belongs to nuclear family (164, 54.7%). Maximum of the participants responded husband (189, 63.0%) as the head of family (Table 1).

Reproductive health characteristics shows those more than half of the participants did not have desire for more child (164, 54.7%). Majority of the participants got their first pregnancy at the age of 19-30 years (213, 71.0%). Maximum participants did not have history of abortion (174, 58.0%) (Table 2).

Patterns of contraceptive methods usage shows maximum participants use condoms currently as contraceptive method. Majority of the participants use contraceptive for the purpose of need of limiting. Out of 300 participants, 224 women (74.7%) have favourable attitude towards family planning, 188 study participants (62.7%) discussed about contraceptive methods with their partners and 201 women (67.0%) do not avail family planning service from any health centre. Unmet need is present among 165 study participants (55.0%) where need for spacing is present among 73 participants (24.3%) and need for limiting is present among 92 participants (30.7%) (Table 3).

Out of the 300 respondents, more than half (165, 55.0%) had unmet needs of contraception. Of which 24.3% were unmet need for spacing and 30.7% were unmet need for limiting.

Table 1: Socio-demographic characteristics of the respondents (n=300).

Characteristics	Frequency	Percentage
Age (years)		
17-34	152	50.7
35-49	148	49.3
Religion		
Hindu	53	17.7
Sanamahism	68	22.6
Christian	42	14.0
Islam	129	43.0
Tingkao Ragwang	8	2.7
Educational qualification of the women		
No formal education	23	7.7
Primary school	69	23.0
Secondary school	149	49.6
Graduate and above	59	19.7
Employment status of the women		
Homemaker	205	68.3
Government employee	12	4.0
Private employee	14	4.7
Self employed	61	20.3
Daily wage	8	2.7
Type of family		
Nuclear	164	54.7
Joint	136	45.3
Head of the family		
Father-in-law	72	24.0
Husband	189	63.0
Mother-in-law	31	10.3
Self	5	1.7
Sister-in-law	3	1.0

After adjusting in multivariate logistic regression analysis, only age of the participants, employment status, pregnant at present, discussion about family planning with their husbands and ever received any family planning services from any health centres maintained their association with unmet need for contraception. For every unit increase in age of the women, the odds of having unmet need of contraception increase by 1.05 times and it was significantly significant. Odds of having unmet need among self-employed women was 98.9% less likely as compared to mothers who were home-makers. Those women who are pregnant at present are 7.6 times more likely to have unmet need. Odds of having unmet need of contraception among women who discussed about family planning with their husbands was 99.4% less likely as compared to those who don't. Odds of unmet need of contraception among participants who did not ever receive any family planning services from health facility were 2.7 times more likely as compared to participants who have received family planning services (Table 4).

Table 2: Reproductive health characteristics.

Characteristics	Frequency	Percentage
Age at marriage in years (n=300)		
14-18	108	36.0
19-30	165	55.0
30-40	27	9.0
Age at first pregnancy in years (n=300)		
14-18	53	17.7
19-30	213	71.0
31-39	34	11.3
Desire for more children (n=300)		
Yes	136	45.3
No	164	54.7
Desire for male children (n=300)		
Yes	75	55.1
No	61	44.9
Ideal number of children for a family (n=300)		
1-2	58	19.3
2-3	118	39.3
3-4	112	37.3
As many as God gives	12	4.1
Total number of living children (n=300)		
No child	15	5.0
1-2	214	71.3
3-4	58	19.3
>5	13	4.3
Pregnancy status (n=300)		
Pregnant	36	12.0
Non-pregnant	264	88.0
Status about current pregnancy (n=36)		
Mistimed	3	8.3
Unwanted	3	8.3
Planned	30	83.3
Status about last childbirth (n=285)		
Mistimed	53	18.6
Unwanted	6	2.1
Planned	226	79.3
History about abortion (n=300)		
Yes	126	42.0
No	174	58.0
No of times of abortion undergone (n=126)		
1	75	59.5
2	37	29.4
>2	14	11.1
Reasons for abortion (n=126) *MOA		
Unwanted	21	16.7
Mistimed/last child too young	22	17.5
Pressure from in-law	2	1.6
Ill health/Doctors' advice	27	21.4
Miscarriage/threatened/spontaneous abortion	64	50.8

*MOA- multiple option allowed.

Table 3: Patterns of contraceptive methods usage.

Characteristics	Frequency	Percentage
Awareness about contraceptive methods (n=300)		
Yes	278	92.7
No	22	7.3
Sources of information about contraceptive methods (n=278)		
Radio/TV/newspaper	192	69.1
Husband	92	33.1
Friends	191	68.7
FP centres/health centres/doctors/nurses	117	42.1
ASHAs/AWW	38	13.7
Contraceptive methods the participants ever heard of (n=278) *MOA		
Oral pill	257	92.4
IUD	206	74.1
Condom	258	92.8
Withdrawal method	94	33.8
Sterilisation operation	81	29.1
Injection	35	12.6
Calendar method	07	2.5
Currently using any contraceptive methods (n=300)		
OCP	15	16.9
Injectables	02	2.2
Condoms	49	55.1
IUD	19	21.3
Tubectomy	06	6.7
Not using any contraceptive method	211	70.3
Purpose of using contraceptives (n=89)		
Need for spacing	32	36.0
Need for limiting	57	64.0
Reasons for not using any contraceptive method (n=211)		
Opting for natural method	74	35.1
Wants a child	59	28.0
Fear of side effects	78	37.0
Inconvenient to use	94	44.5
Religious beliefs	14	6.6
Pressure of husband	06	2.8
Avail family planning service from any health centre (n=300)		
Yes	99	33.0
No	201	67.0
Women's attitude toward family planning (n=300)		
Favourable	224	74.7
Unfavourable	76	25.3
Discussion of family planning with partner (N=300)		
Yes	188	62.7
No	112	37.3
Ever heard of emergency contraceptive methods (n=300)		
Yes	160	53.3
No	140	46.7
Ever used emergency contraceptive methods to avoid unwanted pregnancy (n=160)		
Yes	34	11.3
No	126	78.8
Prevalence of unmet need of contraception (n=300)		
Unmet need present	Spacing - 73 Limiting - 92 Total-165	24.3 30.7 55

Continued.

Characteristics	Frequency	Percentage
Unmet need absent	135	45.0
Types of unmet need of contraception		
Need for spacing	73	24.3
Need for limiting	92	30.7

*MOA-Multiple option allowed.

Table 4: Logistic regression analysis between unmet need of contraception and some selected variables (n = 300).

Variables	COR (95% CI)	P value	AOR (95% CI)	P value
Age of the participants	0.12 (0.001-0.017)	0.036	1.057 (1.013-1.103)	0.010
Religion				
Hindu	1		1	
Sanamahism	1.625 (0.788-3.350)	0.188	2.096 (0.916-4.796)	0.080
Christian	1.098 (0.488-2.474	0.821	1.023(0.410-2.551)	0.961
Islam	1.848 (0.969-3.525)	0.062	2.036 (0.955-4.342)	0.066
Tingkao Ragwang	1.208 (0.273-5.349)	0.803	1.465 (0.309-6.938)	0.630
Educational qualification of women				
No formal education	1			
Primary school	1.192 (0.462-3.071)	0.717		
Secondary school	1.185 (0.491-2.856)	0.706		
Graduate and above	0.948 (0.362-2.487)	0.914		
Employment status of the women				
Home maker	1		1	
Govt. employee	0.992 (0.304-3.230)	0.989	1.227 (0.323-4.653)	0.764
Private employee	0.531 (0.178-1.587)	0.257	0.472 (0.143-1.550)	0.216
Self-employee	0.563 (0.316-1.001)	0.050	0.433 (0.222-0.844)	0.014
Daily wage	1.181 (0.275-5.074)	0.823	0.849 (0.166-4.337)	0.844
Type of family				
Nuclear family	1			
Joint family	1.328 (0.839-2.101)	0.226		
Desire for more children				
Present	1			
Absent	0.907 (0.574-1.432)	0.675		
Pregnancy status at present				
No	1		1	0.001
Yes	7.571.(3.046-18.820)	0.001	7.693 (2.868-20.635)	
Women's attitude towards family planning				
Unfavourable	1			
Favourable	0.679 (0.356-1.292)	0.238		
No comment	1.179 (0.449-3.097)	0.738		
Discussion about family planning with husband				
Absent	1		1	0.028
Present	0.577 (0.358-0.932)	0.025	0.534 (0.305-0.936)	
Ever received any family planning services from any health facility				
Yes	1		1	0.001
No	2.585 (1.577-4.237)	0.001	2.794 (1.579-4.944)	

DISCUSSION

The study was conducted among married women of 15-49 years residing in two urban and two rural areas of Imphal East district of Manipur to estimate prevalence of unmet need of contraception, estimate patterns of contraceptive use and determine association between unmet need of contraception and some selected variables.

Current study revealed that out of the total participants, 165 (55.0%) had unmet needs of contraception. Prateek et al reported a prevalence of 51.6% in his study which was conducted in 2012.[10] Similarly, study conducted by Ali et al in 2013 showed a prevalence of 44.8.[12] Study conducted by Dutta et al in Manipur in 2018 found that the prevalence of unmet need was 74.2%.[13] Whereas study conducted by Rajkumari et al in 2012 in

Kshetrigao, Imphal East district showed a prevalence of 23.9%.[14] These differences could be due to differences in socio-demographic profile among participants.

In our study majority of the women (55.1%) were currently using condoms as a method for family planning. In contrast to this withdrawal method was the most used method followed by male condoms in a study conducted by Thulaseedharan et al in Kerala in 2018.[15] This difference could be because majority of the participants in our study (92.8%) have knowledge about condom followed by oral pills (92.4%) as methods for family planning.

In the present study increasing age was significantly associated with increase unmet need of contraception AOR=1.057 (1.013-1.103) which is consistent with that of study done by Hameed et al in Pakistan.[16]

This study reveal that those self-employed were less likely to have unmet need of contraception AOR=0.433 (0.222-0.844) when compared to the home makers. Similarly, in a study conducted by Genet et al, women who were housewife were 6.81 times more likely to have unmet need compared to those who were employed.[17] The reason may be due to better access for information about FP as they tend to interact with more people.

Discussion about family planning with their husbands were less likely to have unmet need when compared to those who don't AOR=0.534 (0.305-0.936). Study conducted by Dutta et al in Manipur in 2018 husband's approval of using contraception was significantly associated with unmet needs.[13] This may be because husbands play an important role in decision making for use of contraception.

Current study found that unmet need is more likely to be present among participants who have not ever received any family planning services from any health centres and it is statistically significant AOR=2.794 (1.579-4.944). Study done by Yadav et al found that majority (83.1%) of the women who did not have any knowledge of place where family planning services are available near their slum had an unmet need.[18] Main reasons for unmet need for family planning among married women could be due to shyness/embarrassment/hesitancy or lack of knowledge of availability of family planning services at health centres. The strength of this study is that participants from rural and urban community with religious diversity were recruited in this study.

Data utilized in this study may be undermined given the sensitive subject matter and involvement of male interviewers while collecting the data which is the limitation of the study.

CONCLUSION

Five out of ten women were found to have unmet need for contraception. Among which 73 (24.3%) have unmet need for spacing and 92 (30.7%) have unmet need of limiting. Increasing age, women who were self-employed, pregnant at present, women who do not discuss about contraceptive methods with their husband and women who have ever received family planning services from any health facilities were associated with unmet need of contraception unmet need. Awareness programs regarding importance of family planning and various family planning services available at health facilities should be conducted from time to time among the public. Discussion with partners regarding methods for family planning should be emphasized and appropriate strategies should be designed to involve men in family planning decision making. Further in-depth qualitative study may be conducted to understand the determining factors contributing to the unmet need.

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REFERENCES

1. World Health Organisation. Trends in maternal mortality 2000 to 2017: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division, 2019. Available at: https://iris.who.int/handle/10665/327596. Accessed 01 March 2024.
2. International Institute for Population Sciences. National Family Health Survey (NFHS-4), 2015-16, 2017. Available at: https://dhsprogram.com/pubs/pdf/FR339/FR339.pdf. Accessed 01 March 2024.
3. United Nations, Department of Economic and social Affairs, Population Division. World Population Prospects: The 2017 Revision, Key Findings and advance Tables. Working Paper No. ESA/P/WP/248, 2017. Available at: http://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf. Accessed 01 March 2024.
4. Pal A, Yadav J, Sunita K, Singh J. Factors associated with unmet need of family planning in Bihar, India: a spatial and multilevel analysis. Int J

Reprod Contracept Obstet Gynecol. 2018;7(9):3638-45.
5. Sharjabad FN, Yahya SZS, Rahman HA, Hanafiah M, Manaf RA. Barriers of modern contraceptive practices among asian women: a mini literature review. Glob J Health Sci. 2013;5(5):181-92.
6. Department of Health and Family Welfare, Ministry of Health and Family Welfare (MoHFW), Govt. of India. NFHS-V: Department of Health and Family Welfare, Ministry of Health and Family Welfare (MoHFW), Govt. of India; 2019-20. Available at: https://main.mohfw.gov.in/sites/default/files/NFHS-5_Phase-II_0.pdf. Accessed 01 March 2024.
7. Bankole A, Hussain R, Sedgh G, Rossier C, Kaboré I, Guiella G. Unintended pregnancy and induced abortion in Burkina Faso: Causes and consequences. New York: Guttmacher Institute. 2014;75.
8. Wordl Health Organization. Preventing unsafe abortion and its consequences, 2006. Available at: http://www.who.int/reproductivehealth/publications/unsafe_abortion/0939253763.pdf. Accessed 01 March 2024.
9. Khalil SN, Alzahrani MM, Siddiqui AF. Unmet need and demand for family planning among married women of Abha, Aseer Region in Saudi Arabia. Middle East Fertil Soci J. 2018;23(1):31-6.
10. Prateek SS, Saurabh RS. Contraceptive practices adopted by women attending an urban health centre. Afr Heal Sci. 2012;12(4):416-21.
11. Paudel IS, Budhathoki SS. Unmet needs for family planning in Sunsari, eastern Nepal. Nepal J. 2011;9(3):148-51.
12. Ali AA, Okud A. Factors affecting unmet need for family planning in Eastern Sudan. BMC Publ Health. 2013;13(102):1471-76.
13. Dutta G, Konjengbam S, Sangma CM, Akoijam BS, Sonarjit Kh, Mercy A. Unmet needs of contraception in an urban area of Manipur: A cross-sectional study. IOSR-JDMS. 2018;6(15):59-64.
14. Rajkumari B, Nula P, Longjam U. Contraceptive uptake and its determinants and unmet need for contraception amongst women in an urban Muslim community: A cross-sectional study. J Med Soc. 2013;27(3):181-6.
15. Thulaseedharan JV. Contraceptive use and preferences of young married women in Kerala, India. OAJC. 2018;14:01-10.
16. 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. Pak J Publ Heal. 2011;1(1):21.
17. Genet E, Abeje G, Ejigu T. Determinants of unmet need for family planning among currently married women in Dangila town administration, Awi Zone, Amhara regional state; a cross-sectional study. Reproduct Heal. 2015;12(1):1-5.
18. Yadav K, Agarwal M, Shukla M, Singh JV, Singh VK. Unmet need for family planning services among young married women (15-24 years) living in urban slums of India. BMC women's health. 2020;20:1-7.

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