Levels of unmet need and the factors affecting unmet need for family planning among married women in Rajasthan

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ABSTRACT

Background and Objectives: Unmet need for family planning is the gap between the reproductive intentions of the couple and their actual contraceptive behavior. The objectives of this study were to measure the levels and analyze the various determinants of unmet need for family planning.

Methodology: The study is based on analysis of round 2 data of PMA2020 survey. The total number of study participants were 4583 and consisted of married women in the state of Rajasthan. Analysis was carried out on SPSS using cross tabulations, bivariate and multivariate logistic regression.

Results: The total unmet need for family planning was 13.2 percent. The unmet need for spacing was 6.8 percent and the unmet need for limiting was 6.4 percent. Age of the women, lower wealth quintile, less than 10 years marriage duration and those women who had 1 or 2 children showed statistically significant association with unmet need for family planning.

Conclusion: The results of the study indicate a pressing need for action with regard to the current levels of unmet need for family planning.

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INTRODUCTION

With a current population of over 1.3 billion[1], a close second to China, India is facing an alarming growth in its population, putting a strain on its socio-economic development, quality of life, environment and already overloaded resources.[2] This year's world population day (18th of July) themed as "Family Planning is a human Right" emphasizes that parents have a basic human right to determine freely the number and spacing of their children. In doing so, we need to exert this right responsibly towards ourselves, the country and perhaps even the world. Unintended pregnancy is more likely to result in delayed health seeking behavior for pre-natal care. The children born as a result of unintended pregnancies are found more likely to be low birth weight and to be breast-fed for fewer months.[3] The United Nations has estimated a world population growth at 1.23 percent per annum during 2001 to 2010 whereas, India's population grew at an annual rate of 1.64 percent during 2001 to 2011.[4]

Being one of the first nations to establish a family planning program back in 1951, the last 60+ years have seen significant advances in contraceptive methods and its services. The effects of the afore mentioned services is also visible through various health indicators such as the Crude Birth Rate which has declined from 42 in 1960 to 19 in 2016[5]; Total Fertility Rate fallen from 5.9 to 2.3 from 1960 to 2016[6] and Infant Mortality Rate declining from 164 to 35 for the same years.[7] However, the population is still on the rapid rise and although proportion of women with unmet need is decreasing, the absolute number with unmet need may be growing because the population is still growing. The country is yet to

achieve a total fertility rate of 2.1 i.e. 2 children per woman which is considered as the replacement rate for a population, resulting in relative stability in terms of total population numbers.[8]

Several surveys and studies have evidenced a significant gap between the need for contraception and the actual levels of use in developing countries. UN defines unmet need for contraception as "women of reproductive age (15-49) who are sexually active, in a union or married but are not using any method of contraception, and report not wanting any more children or wanting to delay their next birth by at least 2 years."[9] Those women who want to delay their next child but aren't using any contraceptive method are said to have unmet need for spacing while those women who report not wanting any more children are said to have unmet need for limiting. Over the years, the measurement of the need for contraception has gone through various changes. In the early years of the 1970s, extent of the woman's awareness of various family planning methods was used to measure the need i.e. a gap in the awareness and actual practice of contraception was taken as an indication of unmet need for family planning. The current measurement of need takes into account the woman's intentions with regard to child bearing.[10]

In developing countries, an estimated 20 percent, or 222 million[11] of all married woman of reproductive age are affected by unmet need; a third of whom are in India.[12] According to the National Family Health Survey (NFHS-4) 2015-16, 12.9 percent of married women have unmet need for family planning down from 16 percent in NFHS 2 and 13.9 percent in NFHS 3.[13,14,15] Although unmet need for contraception is important for meeting national goals, it is crucial in

developing countries to help health care providers, program planners, policy makers and those in-charge of resource allocation to make informed decisions.[16]

The concept on unmet need for contraception is usually applied to married woman.[2] This paper analyzes the factors associated with unmet need for contraception among currently married women of reproductive age 15-49 years in Rajasthan. A better understanding of the factors associated with unmet need is imperative to modify service delivery programs. Although this study also focuses on only married women of Rajasthan, it is important to note the increasing marital age as well as education and employment among women which gives rise to more opportunities for pre-marital sex.[17]

REVIEW OF LITERATURE

The definition of unmet need for family planning has been under constant revision over time. The earliest definition of unmet need used initially by Westoff, dates back to 1978 which states, "unmet need was defined as the percentage of currently married women who want no more children but are not using contraception (the numerator), out of all currently married women (the denominator)."[18] The woman's desire for spacing was not taken into consideration. This concept of the woman's intention for spacing births was introduced by Nortman in 1982 when it was established that this data could be collected.[19]

Pregnant and post-partum women were initially taken to have no unmet need for contraception as they were presumed to not be currently at risk of

pregnancy. By 1995, the definition of unmet need for family planning was adjusted to include some of these women based on their retrospective intention regarding their most recent birth.[20] This affected the levels of unmet need for spacing and limiting individually but did not affect the levels of the total unmet need for family planning.[21]

In this fashion over the decades, the definition had incurred changes until now where we still have slight variations. The current definition by UN includes only those women of reproductive age who are married or in a union while that by WHO is not limited only to married women but includes all those women who are fecund and sexually active and aren't using any contraceptive method.[9,22]

Various causes for the prevalence of unmet need for contraception have been ascertained over time. Global and National policies assume that the cause is the woman's inability to access family planning services.[11] However, there is ample evidence from family planning research over the decades that obstacles to contraception go well beyond just access.[23] Some of the barriers include religious acceptability, social acceptability including the husband's approval, informational barriers and uncertainty about the desire to avoid pregnancy. Social and cultural acceptability as well as informational barriers significantly contribute to non-use of contraceptives as cited in various studies.[24,25,26] Decision making and spousal convergence regarding the use or non-use of contraception, has been explored and the results are varied. They mention that husband's approval and joint decision making regarding contraceptive use was associated with lower levels of unmet need while partner disapproval was associated with higher levels of unmet need.[27,28,29,30] Those women who are uncertain about their preference regarding

pregnancies, may not possess sufficient motivation to seek out or practice contraception.[31]

Another significant reason given by married women, according to many studies [3,11,26,32], was either breast-feeding or infrequent sex. They believed that they were not at risk of getting pregnant till the time they were still breast-feeding their most recent child or because they had sex very rarely and hence, didn't need to adopt any method of contraception.

Unmet need for family planning gravely influences the risk of unintended pregnancies.[32,33,34] Evidence shows that 1/4th of unintended pregnancies lead to unsafe abortions and this is one of the large causes of maternal mortality at the global stage.[35] Annually, an estimated 74 million unintended pregnancies occur in developing countries and majority of these are among women who are not using any contraceptive method.[32] Unintended pregnancy refers to those pregnancies that occurred either unplanned or at an inopportune time – mistimed; or those that occurred when the couple had no more desire for children - unwanted.[33] These unintended pregnancies are said to be associated with high rates of abortions, obstetric complications[36]**,** poor healthcare service utilization, increased risk of preterm births and low birth weight babies.[37]

Other reasons commonly cited in different studies for non-use of contraceptives were lack of awareness, lack of access, family disapproval or opposition, fear of side effects.[3,11,26,32,38,39]

OBJECTIVE

The objectives of this study are to measure the total unmet need for family planning among married women in Rajasthan and to analyze the various determinants that affect the unmet need for family planning among the married women in Rajasthan.

METHODOLOGY

This paper is based on the round 2 data of Performance Monitoring and Accountability (PMA) survey. The PMA2020 is a global partnership between 11 countries that supports the rights of females to freely make decisions for themselves whether, when and how many children they want to have. It contributes to a monitoring system that provides timely information on family planning and works with governments, donors, multi-lateral organizations, civil society and the research and development community which helps in reporting, planning and making operational decisions at country and global levels.[40]

In India, PMA2020 is being implemented in the state of Rajasthan. The data collection is carried out by local women known as Resident Enumerators (REs) who hold at least a high-school diploma and are from or near the respective enumeration areas. Data collected is instantly processed after collection and disseminated to stakeholders in the country. Data aggregation is done at community, district and national level to provide the data to relevant stakeholders and decision makers.[41]

The survey sample is based on a multi-stage cluster design using rural-urban as major regions and districts as strata. The data was collected at 2 levels: the household level data and facility level data. For this study the total number of married women (15-49 years) drawn were 4583 and these were only from the household data sample of the various enumeration areas. The data used, and variables assessed in this study was from the household and the female questionnaires.[41,42]

The analysis was carried out on SPSS. Bivariable cross-tabulations were done and inferential statistics in the form of Chi-square test was applied and p-value of less than 0.05 was considered statistically significant. Bivariate logistic regression was then done to give an insight into the various characteristics of the women and the association of those characteristics with unmet need for contraception. The definitions for total unmet need for contraception and unmet need for spacing and limiting are the standard definitions given by UN.[9] The total unmet need for family planning was determined by the percent of married women ages 15–49 who are fecund, sexually active, not using contraception and do not wish to become pregnant within the next two years (unmet need for spacing) or at all (unmet need for limiting).[43]

All the data recorded and collected by PMA2020 was done so after consent from each individual woman. Permission was granted for the use of the data in this study by the PMA2020 and was obtained after request for the specific data sets.

RESULTS

The following table shows the population distribution of the data set according to various demographic characteristics.

Table 1: Distribution of respondents by background characteristics

Demographic Characteristics	Frequency	Percentage
Age Groups (Years)		
15-19	185	4.5
20-24	887	19.4
25-29	961	20.0
30-34	882	19.2
35-39	704	15.4
40-44	532	11.6
45-49	432	9.9
Place of Residence		
Urban	1152	25.1
Rural	3431	74.9
Education		
Never	2132	46.5
Primary	1229	26.8
Secondary	588	12.9
Higher and above	634	13.8
Wealth Quintiles		
Lowest	797	20.7
Lower	845	22.3
Middle	969	18.4
Higher	947	17.5
Highest	1024	21.1
Religion		
Hindu	3952	86.2
Muslim	568	12.4
Others	63	1.4
Caste		
General	869	19
Other Backward Class	1816	39.6
Schedule Caste	1084	23.7
Schedule Tribe	809	17.6
Missing Values	5	0.1
Total	**4583**	**100**

The ages of participants ranged between 15 and 49 years with mean age of participants being 31.5 years ± 8.3. Maximum number of participants, 961 (20 percent), were in the age group of 25-29 years. Proportion of participants from rural area were much higher at 74.9 percent while those living in urban areas were 25.1 percent. Proportion of illiterate and primary education was the most prevalent among the women with 46.5 percent and 26.8 percent respectively. The largest proportion of participants were of Hindu religion – 86.2 percent. Others category in religion consisted of all other religions including Buddhist, Christian, Jain, Jewish and Sikh which consisted of 1.4 percent of the participants.

The graph below shows the percentages of unmet need for contraception for this data set. The total unmet need was 13.2 percent. The unmet need for spacing was 6.8 percent while the unmet need for limiting was 6.4 percent.[43]

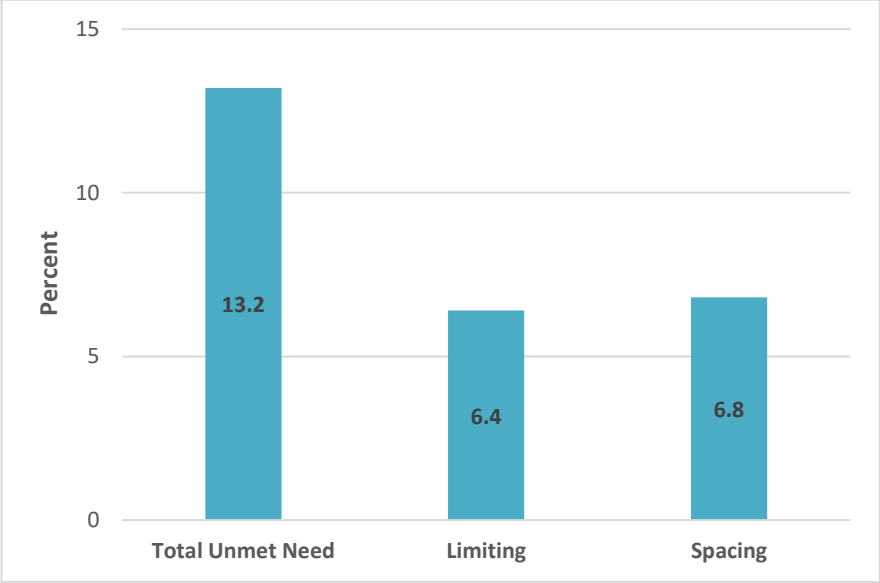

Fig 1: Percentage of Unmet Need for Contraception by total, limiting and spacing

Table 2: Percentages of women who have unmet need for family planning by demographic characteristics

Demographic Characteristics	Unmet need for spacing	Unmet need for limiting	Total unmet need	No. of women
Age Group (Years)	**p value – 0.000**			
15-19	27.0	7.0	34.0	185
20-24	18.8	7.1	25.9	887
25-29	8.5	8.9	17.4	961
30-34	2.4	8.3	10.7	882
35-39	1.7	5.1	6.8	704
40-44	0.2	2.6	2.8	532
45-49	0.0	1.6	1.6	432
Place of Residence	**p value – 0.459**			
Urban	5.8	6.9	12.7	1152
Rural	7.8	6.2	14.0	3431
Education	**p value - 0.000**			
Never	4.9	5.8	10.7	2132
Primary	8.1	7.0	15.1	1229
Secondary	9.9	7.1	17.0	588
Higher and above	11.0	6.5	17.5	634
Wealth Quintiles	**p value – 0.000**			
Lowest	9.0	8.7	17.7	797
Lower	8.8	5.6	14.4	845
Middle	6.3	6.6	12.9	969
Higher	6.5	6.2	12.7	947
Highest	6.2	5.2	11.4	1024
Religion	**p value – 0.000**			
Hindu	7.2	6.3	13.5	3952
Muslim	7.9	6.7	14.6	568
Others	6.3	6.3	12.6	63
Caste	**p value – 0.943**			
General	7.1	7.1	14.2	869
Other Backward Class	7.7	5.7	13.4	1816
Schedule Caste	7.1	6.4	13.5	1084
Schedule Tribe	6.7	7.0	13.7	809

Table 2 shows the association of the demographic factors with unmet need for contraception. Age, education, wealth quintiles and religion showed significant association with unmet need for contraception. Unmet need for spacing was significantly high among younger women, that is, those below 29 years of age and unmet need for limiting was higher in those who are 30 years and above. Higher levels of unmet need were significantly found to be present among those who were of higher levels of education than those who were illiterate or had only primary education. Women of the lower and lowest wealth quintiles had a significantly higher unmet need than those of the middle, higher and highest wealth quintiles. Women of Muslim religion were found to have significantly higher unmet need for contraception than those of any other religion.

Table 3: Percentages of women who have unmet need according to their duration of marriage and parity

	Unmet need for spacing	Unmet need for limiting	Total unmet need	No. of women
Duration of Marriage (Years) p value – 0.000				
0-4	22.8	4.1	27.0	779
5-9	11.2	10.9	22.1	825
10-14	4.3	9.6	13.9	762
15+	1.4	4.4	5.8	2217
Parity p value – 0.000				
1	21.2	4.9	26.1	740
2	4.8	8.2	13.0	1382
3	3.0	6.8	9.8	944
4+	5.3	5.1	10.4	1517

Table 3 shows how parity and duration of marriage associates with unmet need for contraception. Those women who have been married for 9 years or less had significantly higher unmet need for spacing whereas those women who had

been married for 10 years or more had significantly higher unmet need for limiting. In terms of parity, unmet need for spacing was highest among the women having only 1 child. The women who have had 2 or more children were found to have significantly higher unmet need for limiting .

Table 4: Percentages of women who have total unmet need according to media exposure and the number of contraceptive methods they were aware of

	Unmet Need for Spacing	Unmet Need for Limiting	Total Unmet Need	Number of women
Awareness of contraception methods			**p value – 0.039**	
0-4 methods	7.7	7.9	15.6	160
≥ 5 methods	7.1	5.9	13.0	461
Media Exposure		**p value - 0.603**		
No	7.1	6.9	14.0	218
Yes	7.3	6.1	13.4	402

Table 4 shows the association of unmet need with the number of contraceptive methods they were aware of and media exposure of the women. Those women who were aware of 5 or more different methods of contraception had a significantly lower level of total unmet need for family planning than those women who only knew 4 or less methods.

Regression Analysis

Table 5 : Description of the variables used in the logistic regression

Variable	Variable label	Categories
	Dependent Variable	
Y	Total Unmet Need	Respondent having unmet need for contraception =1 Otherwise = 0
	Independent Variables	
X_1	Residence	Rural = 1 Urban = 0
X_2	Age of women	45-49 = 0 15-19 = 1 20-24 = 2 25-29 = 3 30-34 = 4 35-39 = 5 40-44 = 6
X_3	Parity	3 or more = 0 1-2 births = 1
X_4	Duration of Marriage	15+ years = 0 0-4 years = 1 5-9 years = 2 10-14 years = 3
X_5	Education	Illiterate = 0 Primary education = 1 Secondary education = 2 Higher and above education = 3
X_6	Wealth Quintiles	Highest = 0 Lowest = 1 Lower = 2 Middle = 3 Higher = 4
X_7	Caste	Other Backward Class (OBC) = 0 General = 1 Schedule Caste = 2 Schedule Tribe = 3
X_8	Media Exposure	Yes = 0 No = 1
X_9	Awareness of contraception methods	0 = >5 methods 1 = 0-4 methods

Table 5 shows a description of each of the variables that were used in the regression analysis. For parity, the median number of births was 2 hence, grouping for this variable was done around the median.

Bivariate analysis

The first set of results in table 6 on the left side shows the bivariate analysis, or the unadjusted estimates, which provides a prefatory look at the various characteristics of women with the total unmet need for contraception. Pearson's Chi-squared test was used with a p-value less than 0.05.

Multivariate Analysis

Table 6 also shows the adjusted estimates from the multivariate logistic regression model. The model reports a positive association between total unmet need for family planning and age except for the 15-19 age group, the lower quintile of wealth [OR = 1.603; 95 percent CI (1.175-2.187)], the schedule caste [OR = 1.369; 95 percent CI (1.005-1.864)], those women who had been married between 5-9 years [OR = 1.420; 95 percent CI (1.020-1.978)] and those women who had 3+ children [OR = 1.453; 95 percent CI (1.200-1.760)].

No significant association was identified between total unmet need for family planning and place of residence, education and media exposure.

Table 6: Unadjusted & adjusted odds ratio for unmet need for contraception

Variable	Unadjusted Estimates		Adjusted Estimates	
	OR	p value	OR	p value
Woman's Age				
15-19	0.568 (0.229-1.405)	0.221	0.636 (0.254-1.592)	0.333
20-24	17.798 (9.801-32.322)	0.000	11.40 (5.537-23.457)	0.000
25-29	12.066 (7.068-20.599)	0.000	7.417 (3.878-14.185)	0.000
30-34	7.302 (4.257-12.523)	0.000	5.041 (2.691-9.442)	0.000
35-39	4.112 (2.358-7.170)	0.000	3.706 (2.041-6.729)	0.000
40-44	2.526 (1.399-4.562)	0.002	2.520 (1.370-4.637)	0.003
45-49 (reference)	1		1	
Place of Residence				
Urban (reference)	1		1	
Rural	1.118 (0.917-1.364)	0.269	0.829 (0.657-1.046)	0.114
Education				
Never (reference)			1	
Primary	0.564 (0.441-0.722)	0.000	0.967 (0.701-1.334)	0.838
Secondary	0.841 (0.650-1.088)	0.188	0.908 (0.676-1.219)	0.519
Higher and above	0.966 (0.717-1.299)	0.817	0.949 (0.689-1.308)	0.749
Wealth Quintiles				
Lowest	0.881 (0.672-1.155)	0.358	0.861 (0.642-1.156)	0.320
Lower	1.467 (1.127-1.910)	0.004	1.603 (1.175-2.187)	0.003
Middle	1.141 (0.870-1.496)	0.341	1.139 (0.843-1.538)	0.396
Higher	1.011 (0.774-1.321)	0.936	1.075 (0.809-1.427)	0.619
Highest (reference)	1		1	
Caste				
OBC (reference)	1		1	
General	0.976 (0.767-1.243)	0.844	1.068 (0.818-1.394)	0.628
Schedule Caste	1.047 (0.794-1.379)	0.746	1.369 (1.005-1.864)	0.046
Schedule Tribe	0.979 (0.751-1.276)	0.874	0.977 (0.735-1.299)	0.874
Duration of Marriage (Years)				
0-4	0.376 (0.287-0.494)	0.000	0.771 (0.553-1.075)	0.125
5-9	2.284 (1.763-2.960)	0.000	1.420 (1.020-1.978)	0.038
10-14	1.752 (1.347-2.279)	0.000	1.263 (0.944-1.691)	0.116
15+ (reference)	1		1	
Parity				
1-2	1.883 (1.586-2.236)	0.000	1.453 (1.200-1.760)	0.000
3+ (reference))	1		1	
Awareness				
0-4 methods	1.228 (1.010-1.492)	0.039	0.794 (0.630-1.000)	0.050
5> methods (reference)	1		1	
Media Exposure				
Yes (reference)	1		1	
No	1.052 (0.881-1.256)	0.575	1.146 (0.917-1.432)	0.232

DISCUSSION

The countries that are part of PMA2020 show similar results regarding the total unmet need for contraception. Indonesia has a total unmet need for 14.6 percent, Kenya - 15.2 percent and Nigeria - 21.5 percent.[43] According to the recent NFHS-4 report, the total unmet need among married women is 12.9 percent in India.[15] In this study, the unmet need for contraception was found to be 13.2 percent which is similar to other studies as mentioned above.

The classification of unmet need into those for spacing and limiting has important implications and provides information to stakeholders and decision makers in method selection to meet contraceptive demands. In this study, it was observed that those with unmet need for spacing was 6.8 percent and those for limiting was 6.4 percent. This indicates that equal efforts need to be exercised for those women who would like to space their children and also towards those who have completed their family.

Several studies have consistently reported that unmet need for contraception is greatly influenced by social and demographic factors.[24,25,26,32] In this study, age of the woman shows a strong association with levels of unmet need. As confirmed by the multivariate analysis, assuming other factors remain constant, the total unmet need for contraception increases as the age group decreases in comparison with the highest age group (45-49 years). All the age groups show this significant association except for the 15-19 age group. The age group 20-24 years shows the highest – 11 times the odds of having an unmet need while the age group 25-29 years shows 7 times the odds of having the same. This shows that the women in these age groups may either require contraception for the spacing of their children or it is very likely that they may have completed their

family size and hence require contraception for limiting. It is important to assess case-by-case and cater for each woman the appropriate contraception according to her timely needs.

This association with age also corresponds to the duration of marriage. According to the multivariate regression, those women who have been married for 5-9 years show a significant 1.4 times the odds of needing contraception. Considering the lower ages of marriage among women in Rajasthan along with the consistency of higher unmet need among the youth according to similar studies [39,44,45] , it seems plausible that the highest unmet need lies among the women of ages 20-29 years and those who've been married 5-9 years. When designing interventions or making policy decisions, it is important to keep the duration of marriage as an indicator in association with the age or age group of the woman to help better understand her and her family needs. Also, when considering introduction or implementation of existing counseling services regarding family planning, age and duration of marriage play an important role and act as a vital indicator in terms of the kind of counseling to deliver to the woman.

It was observed in the current study that in those women with primary level education, the unmet need for contraception is significantly lower than those who have never been educated. But as observed, the unmet need, though less as compared to those never educated, is higher as the education level increases; however, this association shows no significance. Furthermore, education seems to lose its significance all together in the face of change of other factors as seen in the multivariate analysis.

We see that those of the lower wealth quintile showed the highest odds (1.6 times) of having an unmet need for contraception as compared to the highest wealth quintile and this was the only association among the wealth quintiles which

showed significance. These results differ from other studies which indicate low contraception prevalence rate and higher unmet need for contraception among the poorest group of that population.[24,25,46,47] For now, we cannot speculate the lack of association between the lowest wealth quintile with unmet need for contraception. Further qualitative research may be required to understand this more in depth.

Women having 1 or 2 children were found to have 1.5 times the odds of unmet need for contraception as compared with those who had 3 or more children. These results are worrisome as this indicates that the women wish to space their children but aren't able to do so. This could mean that the women aren't empowered enough to prevent their pregnancies due to their socio-cultural settings they live in. This also means that due to improper spacing, the women are having children unplanned which increases the rate of unintended pregnancies. With the mistiming of the pregnancies, we can speculate that if the subsequent pregnancies are too close together, this takes a toll on the mother's health and increases the likelihood of complications during pregnancy or the delivery and hence raises the morbidity and mortality of both the mother and the child.

The results show a significantly higher unmet need for contraception among those women from schedule caste (SC) – 1.3 times, as compared with women from other backward classes. Few studies from Uttar Pradesh and Bihar have found similar results.[48,49,50] **"**Scheduled castes and tribes are groups that the Indian Government identifies as socially and economically backward and in need of special protection from social injustice and exploitation."[48]

Various studies have talked about the decision making regarding not using any contraception and how this contributed to total unmet need.[27,28,29,30] They

report that when decisions are made separately by either the husband or the wife without discussion or consent, this is associated with higher levels of unmet need whereas joint decision making is protective for the same.

Table 7: Decision makers for not using any family planning method

Decision Makers	Percentage	Number of Women
Woman Herself	24.4	431
Husband	23.1	408
Both	50.7	896
Other	1.5	27
No Answer	0.3	6
Total	**100**	**1768**

Table 7 shows that only 50 percent of the women are making joint decisions with their husbands while the rest are either making decisions on their own or their partners are making the decisions for them. It is important to understand the socio-cultural settings in this context and realize that women might have little control over their contraceptive decision making either because their partners oppose the use of contraception or, according to Casterline and Sinding, the wives frequently misinterpret their husband's attitudes.[23] They further go on to state that contraceptive views and attitudes are changing and while only a minority of husbands are strongly opposed, the husband's opinion ultimately triumphs and it is the wives of these men who account for a disproportionate share of women with unmet need for contraception.[23] It should be encouraged that these decisions are made by the wife and husband together so as to increase acceptability and uptake and be able to discuss freely when and which method can be used and also allow for switching of methods if need be.

Unintended pregnancies are a large concern in Rajasthan and most developing nations, and they are largely associated with unmet need for contraception.[32,33,34] Lack of the right contraceptive method unavailable at the right time leads to mistimed or unwanted pregnancies.

The graph below shows the percentage of women who reported that their most recent birth was unintended.[51] 10.5 percent said that they wanted to delay their most recent pregnancy while 1.7 percent stated that their most recent pregnancy was undesired/unwanted. This adds up to a total of 12.2 percent of women whose recent births were unintended.

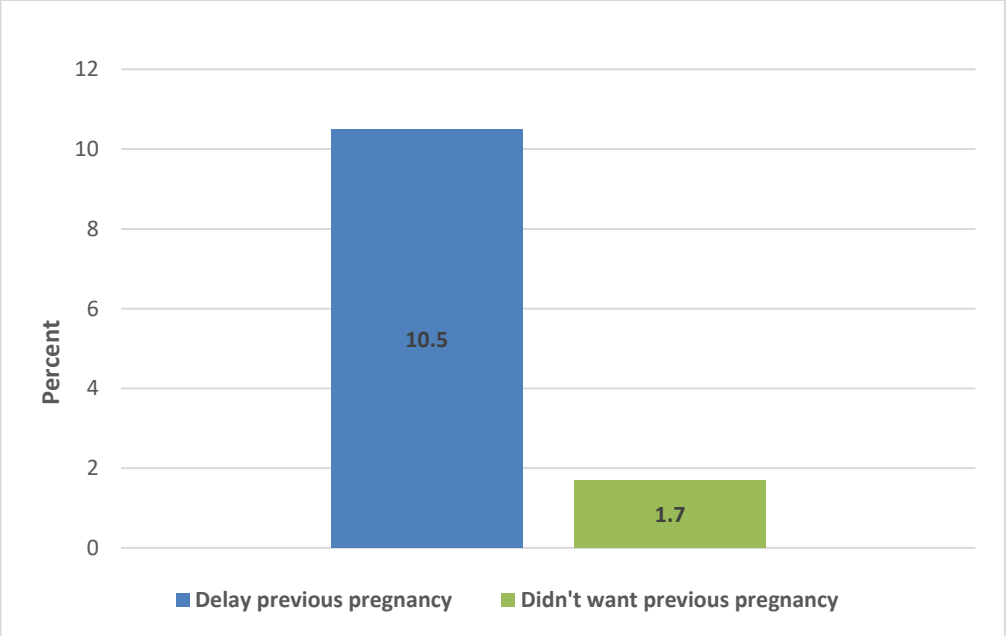

Fig 2: Percentage of recent births that were unintended.

Furthermore, it is reported in many studies that these unintended pregnancies are usually under-reported; sometimes up to 50 percent of the time.[52,53,54] These unintended pregnancies have serious implications on the women's health in that if they are too frequent, they don't allow enough time for the woman to recover from her previous pregnancy and this further leads to under-

nourished children. They are also related to higher rates of obstetric complications and poor or untimely utilization of health-care services. They are also further associated with higher abortion rates. All these contribute to maternal and neonatal mortality rates. Women and couples must be counselled and advised regarding the various methods of family planning and which method would fit best in accordance to their child-bearing intentions of whether they want to space their children or limit them if they have completed their family size.

In response to further questions regarding reasons for not using any family planning methods among those women wanting to delay their next birth by 2 years, various reasons were stated, shown in table 8 below.[51] 64.9 percent of the women stated that they didn't think they were at any risk of pregnancy or that they didn't need it. 19 percent of the women said that they were wary about the method of contraception or the health related afflictions of the contraception methods. A smaller percent of women replied that they were either opposed to using contraception, they lacked knowledge or access to contraceptive methods and some stated other reasons.

Table 8: Reasons mentioned for non-use among women wanting to delay the next birth 2 years or more (n = 1292)

	Percentage	**Number of Women**
Perceived not at risk/lack of need	64.9	838
Method or health related concerns	19.0	245
Opposition to use	3.6	46
Lack of access or knowledge	5.2	67
Other	7.3 **Reason**	96
Total	**100**	**1292**

According to various literature [3,11,26,32], these were found to be among the most common reasons too, regarding non-use of contraception. Out of these, women who were breastfeeding thought that they couldn't get pregnant as long as they continued to do so and hence, didn't think they required any contraception. Some women also stated that their husbands lived away from them and sexual intercourse was quite infrequent, so they didn't require any contraceptive method. This shows a lack of complete knowledge or understanding regarding their perceived risk related to pregnancy. Furthermore, women also mentioned concerns pertaining to certain methods of contraception or their respective side effects which pushed them in the direction of method non-use. This could indicate that the women had developed certain assumptions regarding the side effects of the methods of contraception or that they lacked the knowledge as to how to handle or manage them when faced with the problems. In these two reasons mentioned for non-use of contraception among the women, lies an important point of action because if all these women received an appropriate amount of counseling at the appropriate time and were properly educated about their own personal risks of pregnancy as well as how to manage the various side effects, they could be converted into contraceptive users and this would help decrease the level of unmet need for family planning.

CONCLUSION AND RECOMMENDATIONS

This study shows that unmet need for family planning was high in younger women, those of lower wealth quintiles, women who had been married for less than 10 years and those women who had 1 or 2 children. Further, it was observed

that nearly all age groups of women, the lower quintile of wealth, schedule caste, women who'd been married for 5-9 years and those women who had 1-2 children were associated with unmet need for family planning. All these findings point out the need for dire action with regard to addressing the demand for contraception.

For the 2nd most populous country in the world, contraception is not only required but also imperative. According to the revised National Population Policy of India (2015) the Total Fertility Rate (TFR) for Rajasthan is at 2.8 while states like UP and Bihar have it higher at 3.1 and 3.4 respectively.[55] Over the years the government has come up with many integrated as well as stand alone schemes and these have definitely had an impact in bringing the health indicators down, but we still have a long way to go.

Policy and decision makers as well as donor agencies rely on estimates of levels of unmet need for family planning to help with program decisions. They can also benefit from information pertaining to the barriers faced by women having unmet need. Information from the current report as well as from similar studies can help provide an empirical basis regarding important financial and planning decisions of various interventions.[32]

The most common barriers for non-use, as cited by the women, were associated with lack of perceived risk or need and concerns regarding health and side effects of the contraceptive methods. This points towards a need for in-depth information and counseling services to help the women better understand their potential risks of pregnancy and methods for their circumstances as well as to advise them about the various methods of contraception available, their

advantages and disadvantages, how to manage side effects and facilitate them through switching methods if need be.[32]

There is little evidence to suggest what programs or tactics are currently employed to reduce barriers to contraception that result from social opposition.[23] Specific strategies targeting the disadvantaged groups like the schedule caste, illiterate or those in the lower and lowest wealth quintiles should be considered after further qualitative research to reveal case-by-case obstacles.

Lastly, an important aspect to consider is that most of the unmet need interventions currently existing, are all focusing on married women. Amidst the battles of gender equality and women empowerment, as well as the increasing age of marriage, we need to consider broadening the conventional definition of the unmet need for family planning to include unmarried women and adolescent girls as well; and develop or incorporate strategies to take into account their unmet need too.[17,56]

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