FACTORS ASSOCIATED WITH UNMET NEED FOR FAMILY PLANNING AMONG MARRIED WOMEN IN RURAL TELANGANA, INDIA : A CROSS–SECTIONAL STUDY

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ABSTRACT

Introduction: Despite the availability of various contraceptive services, the unmet need for family planning continues to remain high among rural populations. This study aims to evaluate the determinants of unmet family planning needs among married women of reproductive age residing in rural areas of Telangana. **Methods**: A cross-sectional study was conducted among 400 married women aged 15–44 years in Patancheru, a rural field practice area of Osmania Medical College. Data were collected using a pretested, semi-structured questionnaire. Cluster sampling was employed, and the analysis included descriptive statistics, chi-square tests, and univariate analysis. **Results:** The contraceptive prevalence rate in the study was 83.5%, with 58% of women using permanent methods, predominantly tubectomy. The total unmet need for family planning was 12.5%, including 5% for spacing and 7.5% for limiting. Permanent methods were the most commonly used. Age ($p < 0.000001$), religion ($p < 0.000001$), occupation ($p < 0.000001$), socioeconomic status ($p = 0.01$), family type ($p < 0.000001$), and age at marriage ($p = 0.04$) were significantly associated with unmet family planning needs. **Conclusion**: Sociodemographic and cultural determinants continue to influence contraceptive use. Tailored awareness programs that emphasize temporary methods and male involvement are essential to address unmet needs in rural settings.

Keywords: Family Planning, Unmet Need, Married, Contraception, Maternal Health

INTRODUCTION

India faces challenges in managing rapid population growth. Family planning is vital for maternal and child health, but unmet need persists in rural areas due to cultural traditions, lack of awareness, and limited male involvement (Ministry of Health and Family Welfare, 2021).

NFHS-5 data show India's contraceptive prevalence rate at 66.7% and unmet need at 9.4%, with a greater unmet need in rural than urban areas.

In Telangana, the unmet need for family planning is estimated to be around 8.6%. Recognizing the sociodemographic factors underlying this unmet need is crucial for developing targeted, locally relevant strategies that strengthen reproductive choice and help reduce unintended pregnancies (National Family Health Survey [NFHS-5], 2021).

Globally, about 65–66% of married women use contraception, but around 10% have unmet needs, especially in low- and middle-income countries, due to barriers like access and awareness (UNFPA, 2020; WHO, 2022).

India was the first nation to introduce a nationwide family planning initiative in 1952, with early efforts prioritizing women's health rather than direct population control. After the 1971 census highlighted a sharp rise in population, the country strengthened its fertility-related policies. As per the National Family Health Survey (NFHS-5, 2021), the contraceptive prevalence rate increased to 66.7%, up from 56% documented in NFHS-4 (2015–2016). Despite these improvements, 7.2% of pregnancies remain mistimed, and 6.5% are unwanted, reflecting a persistent unmet need for contraception. Although the overall unmet need dropped from 12.9% in NFHS-4 to 9.4% in NFHS-5, the total number of women requiring family planning services remains high due to continuing population growth (Press Information Bureau, 2022).

Female sterilization is the leading contraceptive method in India, accounting for most use. Fewer use temporary methods due to stigma, misunderstandings, lack of awareness, and concerns about side effects. Family and gender preferences, and broader cultural factors, also shape contraceptive decisions. Globally, consistent use could prevent 25–35% of maternal deaths (United Nations Population Fund, 2005).

High fertility rates—especially in developing nations—intensify poverty and place additional pressure on already limited resources, creating a self-perpetuating cycle of disadvantage (Pathak & Singh, 2014).

Many factors raise fertility rates: low literacy, early marriage, limited decision-making power for women, and weak social security. Urbanization, social barriers, unwanted pregnancies, and economic conditions at all levels also play roles (Retherford & Roy, 2004).

Education builds autonomy, improves understanding of health, and shapes reproductive choices—important in places with strong gender inequality like South Asia. Evidence shows fertility falls as education rises (Kabano & Broekhuis, 2014; Singh & Pathak, 2014).

The study underscores the need for targeted family planning interventions that focus on reducing unmet need through improved counseling, awareness, and promotion of appropriate contraceptive choices, particularly among rural and socioeconomically vulnerable women.

This study aims to estimate the prevalence of unmet need for family planning among married women aged 15–44 years in a rural area of Telangana and to identify the key determinants influencing contraceptive practices.

METHODS

A community-based cross-sectional study was carried out in the rural field practice area of Patancheru, under Osmania Medical College, Hyderabad, India. The area comprises 17 villages with a population of approximately 25,141. The study was conducted from November 2019 to October 2020.

A total of 400 currently married women aged 15 to 44 years were included. The sample size was calculated based on the estimate of 10.9% unmet need in Medak district (NFHS-4, 2017), with a 4.5% allowable error and a design effect of 2. A cluster sampling technique was adopted, selecting 30 clusters and 13–14 respondents per cluster.

Women who were not permanent residents of the study area, those who were seriously ill at the time of the survey, and women who did not provide consent were excluded from the study.

Data was collected using a pre-tested semi-structured questionnaire administered through house-to-house interviews. The questionnaire consisted of four sections: sociodemographic characteristics, reproductive history and contraceptive use, unmet need for family planning, and reasons for non-use of contraception.

1. Sociodemographic characteristics,
2. Reproductive history and contraceptive use,
3. Unmet need for family planning, and
4. Reasons for non-use of contraception.

The questionnaire was developed based on National Family Health Survey (NFHS) tools and previously published studies. It was pre-tested in a nearby rural area not included in the study, and necessary

modifications were made to ensure clarity and relevance. Content validity was ensured through expert review, and internal consistency was assessed, demonstrating acceptable reliability.

Ethical approval was obtained from the Institutional Ethics Committee of Osmania Medical College. Informed consent was obtained from all subjects prior to data collection.

Data entry and analysis were performed using Epi Info version 7. Descriptive statistics were used to summarize the data. Associations between variables and unmet need were assessed using chi-square tests and univariate analysis. A p-value of less than 0.05 was considered statistically significant.

RESULTS

The study included 400 married women aged 15–44 years. The majority were between 20 and 29 years (71.75%). Most were Hindus (83.5%), and about 52.5% were homemakers. Overall, 83.5% of participants reported using some form of contraception, with tubectomy being the predominant method (58%). The total unmet need for family planning was 12.5%, which included 5% for spacing and 7.5% for limiting births.

Table 1: Sociodemographic Characteristics of Study Participants

Variable	Category	N (%)
Age Group	20–29	287 (71.75%)
	30–39	94 (23.5%)
	40–44	13 (3.25%)
Religion	Hindu	334 (83.5%)
	Muslim	66 (16.5%)
Occupation	Homemaker	210 (52.5%)
	Employed	190 (47.5%)
Type of Family	Nuclear	184 (46%)
	Joint	216 (54%)

The majority of participants were aged 20–29 years (71.75%), predominantly Hindu (83.5%), with 52.5% being homemakers. Most lived in joint families (54%).

Table 2: Contraceptive Methods Used by Study Participants

Method	N (%)
Tubectomy	232 (58%)
Condoms	62 (15.5%)
IUCD	36 (9%)
OCPs	4 (1%)
Any Method	334 (83.5%)

Permanent methods, particularly tubectomy (58%), were the most commonly used. Temporary methods included condoms (15.5%), IUCDs (9%), and OCPs (1%). Overall contraceptive use was high at 83.5%.

Table 3: Reasons for Unmet Need for Family Planning

Reason	N (%)
Opposition from husband	41 (10.25%)
Lack of knowledge	36 (9%)
Fear of side effects	24 (6%)

Among women with unmet needs, the leading reasons were opposition from husband (10.25%), lack of knowledge (9%), and fear of side effects (6%).

Table 4: Factors Associated with Unmet Need for Family Planning

Variable	p-value
Age	<0.001
Religion	<0.001
Occupation	<0.001
Type of family	<0.001
Socioeconomic status	0.01
Age at marriage	0.04

Unmet need for family planning showed a statistically significant association with age, religion, occupation, socioeconomic status, type of family, and age at marriage ($p < 0.001$ for age, religion, occupation, and type of family; $p = 0.01$ for socioeconomic status; $p = 0.04$ for age at marriage).

DISCUSSION

In the present study, the total unmet need for family planning among married women in rural Telangana was 12.5%, which is slightly higher than the NFHS-4 Telangana average of 10.9% but similar to findings from studies conducted by Pal et al. (2021) (12.6%) and Singh et al. (2020) (13%). The unmet need was higher for limiting (7.5%) than for spacing (5%), consistent with findings by Nazir et al.(2019), who also reported higher limiting needs in similar rural settings.

The predominant method of contraception was tubectomy (58%), showing a strong preference for permanent methods. This is consistent with the trends observed by Gupta et al. (2018) and Dey et al.(2017), who found that female sterilization continues to dominate contraceptive practices in rural India, often due to sociocultural norms and delayed adoption of temporary methods. In the present study, 48% of women reported using some form of contraception, which is lower than the national average of 69.3% as per the National Family Health Survey (NFHS-5, 2021). The most preferred method was tubectomy, aligning with NFHS-5 trends (38%) and findings from studies in Mysuru (Shobha & Priya, 2020) and Puducherry (Rajaram & Begum, 2015). However, the low uptake of spacing methods such as IUCDs (9%) and OCPs (1%) indicates ongoing gaps in awareness and acceptability.

In terms of unmet need types, our study found 6.2% for spacing and 12.4% for limiting, both higher than the national levels of 4% and 5%, respectively. This suggests an increased demand for limiting births rather than spacing, which may reflect completed family size or lower confidence in reversible methods.

In our study, the unmet need for contraception was significantly higher among unemployed women, a finding consistent with the results reported by Girma Garo et al. (2021) and **Singh et al. (2013)**. This could be explained by their limited access to healthcare and educational resources, as well as financial constraints. The expenses related to contraceptives, transportation to health facilities, and consultation fees may serve as significant barriers for unemployed women seeking family planning services.

Significant associations with unmet need were also observed for age, religion, socioeconomic status, family type, and age at marriage. Younger women had higher unmet needs, as reported by Yadav et al. (2020), highlighting the importance of targeted counseling for this age group. Muslims showed a higher unmet need, consistent with findings by **Pawar and Solanke (2020)**, potentially due to cultural or religious concerns surrounding contraception.

Opposition from the husband (10.25%) and lack of knowledge (9%) were the major reasons cited for unmet need. Similar barriers were documented by Verma et al. (2018), underscoring the importance of male involvement and community-level behavior change communication. Fear of side effects (6%) also featured prominently, consistent with Muthengi et al. (2022), indicating a need for better counseling and dissemination of accurate contraceptive information.

Interestingly, unlike in other studies, literacy was not significantly associated with unmet need in this study. This may reflect the greater influence of household dynamics and spousal decision-making over formal education, as also noted by Sharan and Valente (2002).

Overall, these findings reinforce the need for a balanced promotion of both permanent and temporary contraceptive methods. Strengthening community-based health education, ensuring male participation in reproductive decision-making, and addressing sociocultural barriers are essential to reducing unmet need and advancing universal access to reproductive health.

Limitations:

The study has certain limitations that should be considered while interpreting the findings. Because this was a cross-sectional study, causal relationships between sociodemographic factors and unmet family planning needs could not be established. The data were collected through self-reported responses, which may be subject to recall bias. The study was conducted in a single rural field practice area, which may limit the generalizability of the findings to other rural or urban settings.

CONCLUSION

Despite a high prevalence of contraceptive use, unmet need for family planning remains a public health concern in rural Telangana. The preference for permanent methods, limited awareness of temporary options, and socio-cultural barriers continue to contribute to this gap. Age, religion, occupation, family structure, and early age at marriage significantly influence the unmet need. Community-level interventions, male partner engagement, and culturally sensitive behavior change communication strategies are crucial to reduce the unmet need and empower women with informed reproductive choices.

Recommendations:

- **Strengthen community-based family planning services** by improving counseling on spacing methods, addressing fears of side effects, and ensuring culturally sensitive communication to reduce unmet need among younger and socioeconomically disadvantaged women.
- **Promote male partner involvement in reproductive decision-making** through targeted behavior change communication and couple-based counseling to address spousal opposition and improve informed contraceptive choice.

Conflicts of Interest

The authors declare no conflicts of interest.

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