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Prevalence and determinants of unmet need for family planning in Kishanganj district, Bihar, India

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ABSTRACT

Background: Unmet need is a valuable indicator for assessing the achievements of national family planning programs. The present study was undertaken with the objectives to determine the magnitude of unmet need for family planning among the married women of reproductive age group (15-49 years), to evaluate the various factors that influence the unmet need and to explore the common reasons for unmet need for family planning. **Methods:** A community based, cross-sectional study was conducted from February to April 2012 in Laucha village in Kishanganj, Bihar through multistage sampling. Married women aged 15-49 years, who were permanent residents of the village, were selected by complete enumeration (330 in total) and interviewed through house to house survey with the help of a pre-designed, pre-tested and semi-structured questionnaire. **Results:** The total unmet need for family planning was 23.9%; 9.4% for spacing births and 14.5% for limiting births. The unmet need varied significantly with age ($p < 0.05$) and was highest in ≤ 19 years age group (33.7%). It was also significantly higher among illiterates, those with low monthly per capita income, among Muslims and among those having more than two living issues ($p < 0.05$). Husband's disapproval (34.2%), lack of awareness (27.8%) and fear of side effects (24.1%) were common reasons behind the unmet need. **Conclusion:** the unmet need for family planning was quite high among the respondents and associated with various bio-social determinants that should be considered while planning for scaling-up the program. **Key words:** Family planning, contraceptives, unmet need

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Introduction

Unmet need refers to fecund women who either wish to postpone the next birth (spacers) or who wish to stop child bearing (limiters) but are not using a contraceptive method.¹ This concept clearly indicates a gap between a woman's reproductive intention and contraceptive behaviour.² An estimated 150 million women worldwide want to delay or avoid pregnancy but are not using family planning methods.³ Most of the married women want to use the contraceptive methods but are unable to use because of lack of knowledge, economical problem, fear of side effects, religious cause, insufficiency of family planning worker, uncooperative husband and limited supply and high cost.⁴ Unmet need is a valuable indicator for national family planning programs because it shows how well they are achieving the key mission of meeting the population's felt need for family planning.⁵

The analysis of recent findings of NFHS- III (2005-06) does reveal that the unmet need of family planning has declined from 15.8% in NFHS II to 13.2% in NFHS-III.⁶

However evidence from different surveys indicate that unmet need for family planning is higher in rural areas than urban areas.⁷ The present study was undertaken with the objectives to determine the magnitude of unmet need for family planning among the married women of reproductive age group (15-49 years), to evaluate the various factors that influence the unmet need and to explore the common reasons for unmet need for family planning.

Materials And Methods

The present study was a community based, cross-sectional, descriptive type of study conducted from February 2012 to April 2012. The study was carried out

in the rural area in Laucha village in Bahadurganj block of Kishanganj district of Bihar through multistage sampling to select the requisite sample. It is the rural field practice area of Department of Community medicine, MGM Medical College & LSK Hospital, Kishanganj. Ethical clearance to carry out the study was obtained from the ethical committee of the same institution.

Out of 40 sub-centres, one sub-centre was selected by simple random sampling. Then out of 5 villages in the sub-centre, Loucha village with a population of 1450 was selected by simple random sampling. Married women aged 15-49 years, who were permanent residents of the village, were selected by complete enumeration method and interviewed through house to house survey after obtaining informed consent. The study tool used was a pre-designed, pre-tested and semi-structured questionnaire intended to collect information on bio-Social characteristics, age at marriage, number of living children, knowledge of contraceptive methods and their intention to use contraceptives.

Statistical analysis: Data collected were analyzed using SPSS (Statistical Package for Social Scientists) version 10. Chi-square test was applied to find out relevant associations at 5% level of significance.

Results

Analysis of data showed that 42.1% (139/330) of the respondents belonged to 20-29 years age group and quite a few [26.1% (86/330)] were under 20 years. About 58.2% (192/330) were Hindus and the rest were Muslims. A large proportion of the respondents were illiterate [43.9% (145/330)] and were home-makers [73.0% (241/330)]. About 36.1% (119/330) of the respondents belonged to families with a monthly per capita income of less than thousand rupees. Around 35.8% (118/330) of them had more than two living issues.

Oral contraceptive pills (OCP) (63.9%), male condom (47.3%), Intra-uterine devices (IUD) (45.8%) and female sterilization (45.1%) were commonly known methods of contraception. Most common method ever used was IUD (41.2%), which was followed by OCP (32.1%) and male condom (23.3%). Only 12.4% of the study subjects were aware about male sterilization which was however done in only a few cases (1.8%). (Table 1)

Most common source of information regarding family planning was health workers (64.2%) of the nearby sub-centre and primary health centre. Other common sources of information were radio/T.V. (29.4%) and

Table 1: Awareness and ever use of different family planning methods among the respondents (n = 330)*

| Family planning methods | Awareness No. (%) | Ever used No. (%) |
|-------------------------------|-------------------|-------------------|
| Male condom | 156 (47.3) | 77 (23.3) |
| Oral Contraceptive Pill (OCP) | 211 (63.9) | 106 (32.1) |
| Intra-uterine device (IUD) | 151 (45.8) | 136 (41.2) |
| Injectables | 65 (19.7) | 2 (0.6) |
| Male Sterilization | 41 (12.4) | 6 (1.8) |
| Female Sterilization | 149 (45.1) | 44 (13.3) |
| Withdrawal method | 82 (24.8) | 51 (6.4) |
| Calendar method (safe period) | 22 (6.7) | 5 (1.5) |

*Multiple responses

peer group (27.6%). Only 20.0% had information passed on to them from their husbands. Although many of the respondents knew about the benefits of family planning in terms of spacing and limiting births and prevention of unwanted births, very few knew about its role behind healthy mother and child and reduction of maternal mortality. (Table 2)

Table 2: Source of information on family planning and knowledge about benefits of family planning among the respondents (n =330)*

| Source of Information | No. (%) |
|-----------------------------|------------|
| Health worker | 212 (64.2) |
| Radio / T.V. | 97 (29.4) |
| Peer group | 91 (27.6) |
| Husband | 66 (20.0) |
| Relatives & Family | 43 (13.0) |
| Benefits of family planning | |
| Birth spacing | 198 (60.0) |
| Limiting birth | 165 (50.0) |
| Prevents unwanted Pregnancy | 129 (39.0) |
| Reduce maternal death | 17 (5.1) |
| Healthy mother child | 11 (3.3) |
| Do not know | 19 (5.8) |

* Multiple responses

The total unmet need for family planning was found to be 23.9%; for spacing birth, it was 9.4% and for limiting birth, it was 14.5%. (Table 3)

Table 3: Prevalence of unmet need for family planning among the respondents (n = 330)

| Unmet need for family planning | No. (%) |
|--------------------------------|-----------|
| For spacing birth | 31 (9.4) |
| For limiting birth | 48 (14.5) |
| Total unmet need | 79 (23.9) |

The unmet need varied significantly with age ($p = 0.007$) and was highest in ≤ 19 years age group (33.7%). It was also significantly higher among illiterates and among those who belonged to families with a monthly per capita income of less than thousand rupees. ($p < 0.05$). However no significant association was found between unmet need and occupational status. Muslims had significantly higher unmet needs than Hindus (29.7% vs.19.8%; $p = 0.04$). It was also found that the unmet need was significantly higher among the respondents with more than two living issues than those with two or less living issues (30.5% vs. 20.3%; $p = 0.04$). (Table 4)

Table 4: Relation of bio-social characteristics of the respondents with the unmet need for family planning

| Characteristics | With Unmet need No. % | Without unmet need No. % | p value |
|--|--------------------------|-----------------------------|-----------|
| Age (Years) | | | |
| ≤ 19 (n = 86) | 29 (33.7) | 57 (66.3) | p = 0.007 |
| 20-29 (n = 139) | 35 (25.2) | 104 (74.8) | |
| ≥ 30 (n = 105) | 15 (14.3) | 90 (85.7) | |
| Educational Qualification | | | |
| Illiterate (n = 145) | 44 (30.3) | 101 (69.7) | p = 0.02 |
| Literate (n = 185) | 35 (18.9) | 150 (81.1) | |
| Occupation | | | |
| Home-maker (n = 241) | 61(25.3) | 180 (74.7) | p = 0.34 |
| Working (n = 89) | 18 (20.2) | 71 (79.8) | |
| Religion | | | |
| Hindu (n = 192) | 38 (19.8) | 154 (80.2) | p = 0.04 |
| Muslim (n = 138) | 41(29.7) | 97(70.3) | |
| Per-capita monthly income (in Rupees) | | | |
| < 1000 (n = 119) | 37(31.1) | 82 (68.9) | p = 0.02 |
| ≥ 1000 (n = 211) | 42 (19.9) | 169 (80.1) | |
| Number of living children | | | |
| ≤ 2 (n = 212) | 43 (20.3) | 169 (79.7) | p = 0.04 |
| > 2 (n = 118) | 36 (30.5) | 82 (69.5) | |

Husband's disapproval (34.2%), lack of awareness (27.8%) and fear of side effects (24.1%) were found to be the common reasons behind the unmet need. (Table 5)

Table 5: Reasons for unmet need of family planning (n = 79)* (*Multiple responses)

| Reasons of Unmet need | No. (%) |
|-----------------------|-----------|
| Husband's disapproval | 27 (34.2) |
| Lack of awareness | 22 (27.8) |
| Fear for side effects | 19 (24.1) |
| Against my religion | 8 (10.1) |
| Lack of access | 6 (7.6) |
| Inconvenient to use | 4 (5.1) |

Discussion

The present study calculated the unmet need for contraception in this rural population to be 23.9% which was much higher than the national figure of 13.2% as per NFHS-III⁶ and almost similar to that for rural area of Bihar (25.7%) as per DLHS-3 (District level household and facility survey 3rd round).⁸ However it was less than that reported from the rural areas in Gwalior district of Madhya Pradesh⁹ and Etawah district of Uttar Pradesh.¹⁰ The unmet need for spacing and limiting births in the present study was 9.4% and 14.5% respectively which was very similar to the findings of DLHS-3 in rural areas of Bihar (8.9% and 16.8%).⁸ However a study conducted in urban slums of Thiruvananthapuram, Kerala calculated the unmet need for spacing and limiting births to be 10.8% and 6.2% respectively.¹¹

Among the respondents in the present study, IUD, OCP, and male condom were the commonly used methods, IUD use being the highest. Female sterilization was done in only 13.3% cases and male sterilization in only a few cases (1.8%). This indicated non-availability or non-accessibility of services for permanent methods and lack of awareness regarding advantages and safety of particularly male sterilization. DLHS-3 for Bihar also revealed a higher rate of female sterilization (24.4%) than male sterilization (0.3%) in rural areas and in sharp contrast to findings of the present study reported very poor rate of OCP (1.0%), IUD (0.4%) and condom (1.1%) use.⁸ NFHS-3 data also showed much higher rate of female sterilization (37.1%) than male sterilization (1.0%) and very poor rate of use of other modern methods in rural areas of India. Ray Karmakar et al (2011) from Kolkata reported a much higher use of condom (20.0%) and OCP (14.0%) than IUD (0.6%). The tubectomy rate of 13.0%.¹²

In the present study, the respondents mentioned health workers of the nearby health centre as the most common source of information on family planning. Other common sources were radio/T.V. and peer group (27.6%). Only 20.0% mentioned husbands as the source of information indicating a lack of male participation in this issue.

Ray Karmakar et al from Kolkata however found that majority of the participants (79%) acquired contraceptive knowledge from friends and family members, 31% from mass media and 21% from health care providers, respectively. Health workers (65.9%), radio (37.1%), T.V. (27.6%) were also mentioned as the common sources of information from a study from south-east Nigeria.¹ This study also revealed that 72.9% and 40.6% knew birth spacing and limiting respectively as the main benefits of family planning and very few of

them knew about its role in bringing about healthy mother and child (1.7%) and a reduction in maternal mortality (1.7%).¹ In the present study it was observed that though many of the respondents knew about the benefits of family planning in terms of spacing and limiting births, very few knew about its role behind healthy mother and child and reduction of maternal mortality.

It was observed in the present study that the unmet need varied significantly with age. It was highest in ≤ 19 years age group which might be due to insufficient knowledge about contraceptives and less opportunity to participate actively in decision making. Shrivastava et al (2011) also reported highest percentage of unmet needs for family planning in 15-19 years age group. Earlier studies had also revealed that the use of contraceptive measure was least among married women of similar age group.^{13, 14}

In the present study, the unmet need was also significantly higher among illiterates and among those who belonged to families with a monthly per capita income of less than thousand rupees. Saini NK et al (2007) in their study found a linear relationship between the education level of the respondents and the unmet need for family planning which was also significantly higher among those with a per capita monthly income of less than thousand.² Patil SS et al (2010) also reported a significant association of unmet need with low educational status of the married women.¹⁵ A study from Kerala also showed similar results.¹¹ However similar studies done in other developing countries did not report such association.^{1, 16} The present study also showed that Muslims had significantly higher unmet needs than Hindus. Similar findings were obtained from some other studies in India.^{9, 17}

In the present study, the unmet need was significantly higher among the respondents with three or more living issues living issues which was similar to findings of studies conducted in other parts of India.^{9, 15, 18}

Husband's disapproval, lack of awareness and fear of side effects were found to be the common reasons behind the unmet need for family planning among the respondents of the present study. In a study conducted in a tribal block of Maharashtra, the most common reason for unmet need was side effect related causes followed by contraceptive method related reasons (lack of availability and awareness) and fertility related reasons (lactational amenorrhoea, desire for more children and infrequent sex).¹⁵ In another study conducted in rural South India, the most common reason was sex preference.¹⁹ In a study from

Bangladesh, fear of side effects was found to be the most common barrier to contraceptive use.²⁰

In Nigeria, husband's disapproval and perceived fear of side effects were the major limitations to the use of family planning methods.¹ Similar observations had been made in some studies especially in developing countries.²¹⁻²³

The present study was not without limitations. In most cases husbands of the respondents were not available at the time of interview and hence they could not be included in the study. Their views would have made the findings more appropriate and would have given better idea about the actual contraceptive practice.

Conclusion

It could be concluded from the present study that the unmet need for family planning was quite high among the respondents and very similar to the state figure as per DLHS-3 for Bihar. Male participation was found to be poor as reflected by very low rate of male sterilization and husband's disapproval being the most common reason behind not using any contraceptive method. Lower age of the married women, illiteracy, low per capita monthly income, religion and more number of living issues were found to be important bio-social determinants of such unmet need. In order to meet the gap, program managers must consider these in their endeavours to scale-up the program activities and particularly ensuring male participation and involvement of religious and community leaders right from the stage of planning.

Ethical considerations

Ethical issues (including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc) have been completely observed by the authors. Ethical clearance to conduct the study was obtained from the ethical committee of M.G.M. Medical College & L.S.K. Hospital, Kishanganj, Bihar.

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