Knowledge, attitude and practice of family planning methods among the rural females of Bagbahara block Mahasamund district in Chhattishgarh State, India

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ABSTRACT
Background
If many women in Chhattisgarh are not using family planning, it is not due to a lack of knowledge. Knowledge of contraception is nearly universal; 98 percent of currently married women know at least one modern family planning method. Women are most familiar with female sterilization (97 percent), followed by male sterilization (86 percent), the pill (68 percent), the condom (55 percent), and the IUD (40 percent). About two out of every five women (43 percent) have knowledge of at least one traditional method. Yet only 45 percent of married women in Chhattisgarh are currently using some method of contraception, about the same as in Madhya Pradesh (44 percent) but less than the national average (48 percent). Contraceptive prevalence in Chhattisgarh is considerably higher in urban areas (59 percent) than in rural areas (42 percent).

Objectives
To assess the knowledge, attitude and practice of family planning methods, and factors that could affect their use, among the rural females of reproductive age group (15-49 years).

Methods
A total of 326 females of reproductive age group (15-49 years) from the rural areas of Bagbahara block of Mahasamund district in Chhattisgarh state were selected randomly and interviewed with the help of semi-structured interview schedule, which consists of demographic data, questions related to knowledge, attitude and practice of different contraceptive methods and factors affecting the use of these methods.

Results
Most of the respondents (79%) were aware of at least one contraceptive method. The most common source of information on contraception was Health staffs (46%), followed by ASHA (Mitanin) workers (42.5%), media (7.5%) and relatives/friends (4%). Knowledge of non-contraceptive benefits of family planning methods was claimed by only 19% of the respondents, while knowledge about various adverse effects was reported by 32% of the respondents. About 62% of respondents showed favourable attitude towards family planning methods while other (34%) are against it and rest 4% didn’t respond. About 53% of respondents had ever used any family planning methods. 26% respondents were using contraceptive methods at the time of study. Intrauterine devices were the most commonly used method (46%) followed by condom (22%), female
sterilization (21%) and oral contraceptive pills (11%). The most common reason for discontinuation of contraceptive methods was stated as refusal by husband and side effects.

Conclusion
This study reveals that with increase in level of education, awareness also increased. Most of the respondents have the considerable knowledge and favorable attitude towards contraceptive methods but a wide knowledge practice gap was evident in this study, which was similar to the findings of studies done in other developing countries. Improved female education strategies and better access to services are needed to solve these problems. The use of communication media suitable for audience and adequate message is important in conducting effective family planning awareness activities. Efforts should be made to educate the public about the safety and convenience of modern, long term, reversible methods of contraception among both healthcare professionals and the public.

Keywords: Knowledge, Attitude, Practice, Family Planning, Contraceptives, Rural Females

INTRODUCTION
The present study was conducted among the rural females of reproductive age group seeking treatment at Community Health Centre (CHC) Bagbahara. These females are residing in rural areas of Bagbahara Block of Mahasamund District in Chhattisgarh state. The present study is an effort to assess knowledge, attitude and practice (KAP) of family planning among them. Despite the provision of safe and affordable family planning services, 120 million couples worldwide are not using any contraception to limit or space their family, and many who use one or the other method, conceive. An Expert Committee (1971) of the WHO defined family planning as “a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes and responsible decision by individuals & couples, in order to promote the health and welfare of the family group and thus contribute effectively to the social development of the country”.

India is the second most populous in the world having a rapidly growing population which is currently increasing at the rate of 16 million each year. To slow down this growth rate, the National Population Policy was revised by the Government of India in 2000, with the objective of bringing down the total fertility rate to the replacement level by 2010. Despite constant efforts by the government, unmet needs still remain. The reasons for these unmet needs have to be analyzed to the core for better understanding of the situation and to help the government in formulation of appropriate policies and modified approaches. Family planning services have the potential to improve the quality of the lives of people and also their economic welfare. Increasing population growth is a worldwide problem today and India is no exception.

A variety of different methods of contraception are available, which are generally extremely safe compared with the risks associated with pregnancy and childbirth. Not all methods are suitable for everyone. Expanding the number of family planning options available to women is a critical part of increasing contraceptive coverage, decreasing unintended pregnancies and reducing maternal morbidity and mortality around the globe. Family planning through contraception tries to achieve two main objectives; firstly, to have only the desired number of children and secondly, to have these children by proper spacing of pregnancies. A lack of knowledge of contraceptive methods or a source of supply, cost and poor accessibility are the barriers that exist in developing countries. Side effects perceived or real are major factors for the abandoning of modern methods. Mass media also plays an important role in promotion and acceptability of contraception. Maternal mortality ratio for Nepal is high as 281 deaths per 100,000 live births. In the effort to reduce maternal deaths in developing nations, family planning can be an important and effective first step. Fewer unwanted pregnancies mean fewer pregnancy related deaths, making family planning a vital way to improve maternal health. According to Bongaarts the knowledge, attitude, practice surveys revealed no
complete correspondence between knowledge and attitudes and between attitude and practice of family planning methods.7 Fawcett has also reported that respondents usually exhibit considerable knowledge and attitude change over time, but they do not always exhibit corresponding changes in contraceptive practice.8 The family planning programmes have been in operation in India for more than five decades.9 There has been a considerable increase in the governmental and non-governmental activities for promoting the adoption of family planning through widespread and intensified efforts as well as clinical services being made available to the users of family planning methods. Unmet needs are conceptually identified as a separate category within family planning services in order to focus on such married women whose attitudes resemble those of contraceptive users but practices do not. The factors responsible for such behaviour can be: lack of information or of services, inconvenient or unsatisfactory services, poor design and management of service delivery systems; fears about contraceptive side effects, opposition from the husband and relatives are other contributory factors.

KAP studies are highly focused evaluations that measure changes in human knowledge, attitudes and practices in response to a specific intervention, usually outreach, demonstration or education. KAP studies have been widely used and valued around the world for at least forty years in public health, water supply and sanitation, family planning, education and other programs. National governments, nongovernmental groups, United Nations agencies and the World Bank use KAP evaluation methods. KAP studies are more cost-effective and resource conserving than other social research methods because they are highly focused and limited in scope. KAP studies tell us what people know about certain things, how they feel, and how they behave. Each KAP study is unique to a particular setting and designed for a specific issue. Whereas social surveys may cover a wide range of social values and activities, KAP studies focus specifically on the knowledge, attitudes and practices (behaviours) for a certain topic.

METHODOLOGY
Operational Definitions
“KAP survey is a representative study of a specific population to collect information on what is known, believed and done in relation to a particular topic. In most KAP surveys, data are collected orally by an interviewer using a structured, standardized questionnaire. These data then can be analysed quantitatively or qualitatively depending on the objectives and design of the study. A KAP survey can be designed specifically to gather information about related topics, but it may also include questions about general health practices and beliefs”.

“Family planning refers to practice that help individuals or couples to attain certain objectives:

- To avoid unwanted births
- To bring about wanted births
- To regulate the intervals between the pregnancies
- To control the time at which birth occurs in relation to the ages of the parent
- To determine the number of children in the family”.

Study Design, Sampling and Data Collection
We adopted a cross sectional, time-series study design with mixed methods approach. The populations for the study were the rural females of reproductive age group (14-45 yrs.) seeking treatment at Community Health Centre (CHC) Bagbahara. This includes 412 members. 206 members among the study population were selected by using simple random sampling technique. Both quantitative and qualitative information was collected using a structured questionnaire and non-participant observation. This was specially designed, consisting of closed ended, open ended and multiple response questions used for collecting data on socioeconomic status, knowledge, attitude and practices of family planning methods and utilisation of family welfare services. To confirm the responses in the schedule, the same question was asked in different ways two or three times during the interview. The responses, which were found to be consistent, were considered reliable. By using published materials of government officials,
periodicals & Internet investigator collected secondary data.

Permission was obtained from the district authority for data collection. Anonymity and confidentiality was maintained. Quantitative data was coded and entered into Microsoft Excel and exported to SPSS for analysis. The statistical test used is Chi-square ($\chi^2$) test and statistical units used are percentage and frequencies.

Testing of Hypotheses:

1) Null Hypothesis: There is no significant association between marital status of females and knowledge of family planning.

Table value of Chi-square ($\chi^2$) at 2 degrees of freedom (df) with 5% level of significance is 5.99. Calculated value is greater than the table value, hence null hypothesis is rejected. (Table - 1)

Inferences: There is a significant association between marital status of females and knowledge of family planning.

Table 1 Calculation of Chi-square ($\chi^2$) value for null hypothesis 1

<table>
<thead>
<tr>
<th>Observed frequency (O)</th>
<th>Expected frequency (E)</th>
<th>O - E</th>
<th>Chi-square ($\chi^2$)= (O-E)$^2$/E</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>56 x 161 / 206= 43.76</td>
<td>-5.76</td>
<td>(-5.76) x (-5.76) / 43.76 = 0.75</td>
</tr>
<tr>
<td>112</td>
<td>133 x 161 / 206 = 103.94</td>
<td>8.06</td>
<td>8.06 x 8.06 / 13.94 = 0.62</td>
</tr>
<tr>
<td>11</td>
<td>17 x 161 / 206 = 13.28</td>
<td>-2.28</td>
<td>-2.28 x -2.28 / 13.28 = 0.39</td>
</tr>
<tr>
<td>18</td>
<td>56 x 45 / 206 = 12.23</td>
<td>5.77</td>
<td>5.77 x 5.77 / 12.23 = 2.72</td>
</tr>
<tr>
<td>21</td>
<td>133 x 45 / 206 = 29.05</td>
<td>-8.05</td>
<td>-8.05 x -8.05 / 29.05 = 2.23</td>
</tr>
<tr>
<td>6</td>
<td>17 x 45/206 = 3.71</td>
<td>2.29</td>
<td>2.29 x 2.29 / 3.71 = 1.41</td>
</tr>
<tr>
<td>Total value</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2) Null Hypothesis: There is no significant association between ethnicity of females and practice of family planning methods.

Table value of Chi-square ($\chi^2$) at 3 degrees of freedom (df) with 5% level of significance is 5.99. Calculated value is greater than the table value, hence null hypothesis is rejected. (Table - 2)

Inferences: There is a significant association between ethnicity of females and practice of family planning methods.

Table 2 Calculation of Chi-square ($\chi^2$) value for null hypothesis 2

<table>
<thead>
<tr>
<th>Observed frequency (O)</th>
<th>Expected frequency (E)</th>
<th>O - E</th>
<th>Chi-square ($\chi^2$)= (O-E)$^2$/E</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>124 x 78 / 161 = 60.07</td>
<td>-9.07</td>
<td>82.26/60.07 = 1.36</td>
</tr>
<tr>
<td>8</td>
<td>11 x 78 / 161 = 5.32</td>
<td>2.68</td>
<td>7.18/5.32 = 1.35</td>
</tr>
<tr>
<td>19</td>
<td>26 x 78 / 161 = 12.59</td>
<td>6.41</td>
<td>41.08/12.59 = 3.26</td>
</tr>
<tr>
<td>73</td>
<td>124 x 83 / 161 = 63.92</td>
<td>9.08</td>
<td>82.44/63.92 = 1.28</td>
</tr>
<tr>
<td>3</td>
<td>11 x 83 / 161 = 5.67</td>
<td>-2.67</td>
<td>7.12/5.67 = 1.25</td>
</tr>
<tr>
<td>7</td>
<td>26 x 83/161= 13.40</td>
<td>-6.4</td>
<td>40.96/13.40 = 3.05</td>
</tr>
<tr>
<td>Total value</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3) Null Hypothesis: There is no significant association between obstetrics history of females and knowledge of family planning.

Table value of Chi-square ($\chi^2$) at 2 degrees of freedom (df) with 5% level of significance is 5.99. Calculated value is greater than the table value, hence null hypothesis is rejected. (Table - 3)

Inferences: There is a significant association between obstetrics history of females and knowledge of family planning.
Table 3 Calculation of Chi-square (χ²) value for null hypothesis 3

<table>
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<tr>
<th>Observed frequency (O)</th>
<th>Expected frequency (E)</th>
<th>O - E</th>
<th>Chi-square (χ²) = (O-E)²/E</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>124 x 78 / 161 = 60.07</td>
<td>-9.07</td>
<td>82.26/60.07 = 1.36</td>
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<td>8</td>
<td>11 x 78 / 161 = 5.32</td>
<td>2.68</td>
<td>7.18/5.32 = 1.35</td>
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<td>41.08/12.59 = 3.26</td>
</tr>
<tr>
<td>73</td>
<td>124 x 83 / 161 = 63.92</td>
<td>9.08</td>
<td>82.44/63.92 = 1.28</td>
</tr>
<tr>
<td>3</td>
<td>11 x 83 / 161 = 5.67</td>
<td>-2.67</td>
<td>7.12/5.67 = 1.25</td>
</tr>
<tr>
<td>7</td>
<td>26 x 83/161 = 13.40</td>
<td>-6.4</td>
<td>40.96/13.40 = 3.05</td>
</tr>
<tr>
<td>Total value</td>
<td></td>
<td></td>
<td>11.55</td>
</tr>
</tbody>
</table>

RESULTS

Socio-Demographic Profile of Study Participants
Out of total 206 members; most of the members 72 (34.95%) belongs to the age group of 20-29 years followed by 59 (28.64%) belonging to age group of 30-39 years. Most of the members 122 (59.22%) are followers of Hinduism followed by Muslims 51 (24.75%), Sikh 21 (10.19%) and Christian 12 (5.82%). About 133 (64.56%) members are married while remaining are unmarried 56 (27.18%) and widow 17 (8.25%). Literacy rate was very poor among study population; about 134 (65.04%) members are illiterate while others are literate.

About 142 (68.93%) members are employed including labourers and rest 64 (31.06%) are unemployed. 163 (n=206) members had pregnancy at-least once out of which 124 member having parity, 13 members have undergone abortion and rest 26 members having still birth.

Knowledge about Family Planning
Among 163 members who are having obstetrics history, 161 (98.77%) are having knowledge of family planning. About 154 (95.65%) members knows about condom as one of the family planning method, 137 (85.09%) knows about female sterilization, 123 (76.39%) member knows about Intra-Uterine Device (IUD) and 107 (66.45%) members knows about oral pills as a method of contraception. Common sources of information about family planning are ASHA (Mitanin) community health workers 152 (94.40%) followed by health staffs 103 (63.97%), husband/partner 96 (59.62%), mass media 93 (57.76%) and friends/relatives 74 (45.96%). Knowledge of non-contraceptive benefits are claimed by 78 members only among which 46 (28.57%) members knows that family planning methods helps in preventing STD, HIV/AIDS.

Attitude towards Family Planning
About 98 (60.86%) members agreed with that the family planning is female’s job only while 49 (30.43%) disagreed with same. About 103(63.97%) members disagreed with this that family planning helps in improving family's standard of living. About 54 (33.54%) members agreed with that the family planning gives enough time for taking care of family's need. Ego approves couple using family planning methods, about 107 (66.45%) members agreed with this while 48 (29.81%) members are disagreed with same.

Practice of Family Planning
There is a marked gap existing between knowledge and practice of family planning methods. About 78 (48.44%) members had ever practiced any method while 83 (51.55%) members never ever practiced it. Practise rate among Sikhs (57.89%) is more as compared to others.

Increase in education level is accompanied by practice of family planning methods. About 53 (55.20%) illiterate members had ever practiced any method while 9 (81.81%) members having education up to higher secondary level had ever practiced it. Among 78 (48.44%) members who had ever practiced any method, 66 (58.92%) are married, 8 (21.05%) are unmarried and 4 (36.36%) members are widow. Among 78 (48.44%) members who had ever practiced any method, 51 (41.12%) are having parity, 8 (72.72%) members have undergone abortion and 19 (73.07%) members are having history of still births. According
to 63 (80.76%), the common reasons for using any particular is Safe & easy to use while others 72 (92.30%) claim that they are using because of husband’s preference and rest 48 (61.53%) claim that they are using because it is advised by health staffs/friends. Various reasons for discontinuing the family planning methods are husband against it 63 (80.76%), causes ill health & infertility 54 (69.23%), afraid of sterilization 49 (62.82%), causes adverse effects 41 (52.56%) and wants more children 37 (47.43%). About 19 (24.35%) members ever suffered from the various adverse effects of family planning method while other 59 (75.64%) members never suffered from any adverse effects. These figures are calculated among the 78 members who ever practiced any method of family planning method. Most common adverse effects by which members suffered are irregular per vaginal bleeding 6 (31.57%), amenorrhea 4 (21.05%), weight loss 11 (57.89%), abdominal pain 6 (31.57%), allergy/allergic rashes 12 (63.15%), Headache/ Nausea/ Vomiting/ Breast tenderness 13 (68.42%), Fever 4 (21.05%) and loss of appetite 3 (15.78%).

**DISCUSSION**
This study highlights that awareness does not always lead to the use of contraceptives. A lot of educational and motivational activities and improvement in family planning services are needed to promote the use of contraceptives and reduce the high fertility rate. The present study highlights a very low contraceptive use as the main reason for a high fertility rate. The various reasons for this are mainly illiteracy, ignorance, social and religious taboos, and inadequate social welfare services.

**CONCLUSION AND RECOMMENDATION**
This study reveals that with increase in level of education, awareness also increased. Most of the respondents have the considerable knowledge and favorable attitude towards contraceptive methods but a wide knowledge practice gap was evident in this study, which was similar to the findings of studies done in other developing countries. Improved female education strategies and better access to services are needed to solve these problems. The use of communication media suitable for audience and adequate message is important in conducting effective family planning awareness activities. Efforts should be made to educate the public about the safety and convenience of modern, long term, reversible methods of contraception among both healthcare professionals and the public. Target couples should be given information about contraceptives at every visit to the health services to motivate them. The most important factor is regular availability of contraceptives and adequate health care services at the peripheral level hence it should be made available round the clock.

**STUDY LIMITATIONS**
The study was conducted among the rural females who were seeking treatment at CHC which may not represent the universe. Socially desirability of responses could play as limiting factors in generalizing the results.

**ACKNOWLEDGEMENT**
We are thankful to the health authorities of Mahasamund district. The support and cooperation of CMHO, Civil Surgeon, and District Programme Manager is acknowledged. Cooperation of the Block Medical Officer, health staffs of CHC Bagbahra and Block Programme Manager during data collection is deeply acknowledged.

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