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Original Research Article

Knowledge, attitude and mis-conceptions regarding copper-T among women and ASHA workers in Bundelkhand region

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ABSTRACT

Background: Population explosion is probably the most challenging issue India is facing currently. According to the factsheet of National Family Health survey -5 (NFHS-5), the total unmet need for family planning methods in currently married women aged 15-49 years is 9.4% and the total unmet need for spacing methods is 4.0%. Also, IUCDs hold 2.1% of total share of contraceptives being used.
Methods: 200 women coming to the hospital and 100 ASHA workers of Bundelkhand region accompanying them were included in this survey. They were asked to fill a questionnaire and results were analysed.
Results: 56% of women knew about Copper-T as a contraceptive and only 25.5% women perceived it as an effective contraceptive. Theyraised concerns like bleeding, pain, infection and infertility. 53% ASHA workers reported women have only partial knowledge about Copper T.
Conclusion: Copper T has low acceptance among women due to misconceptions and lack of awareness. Counselling, providing incentives to women, involving men and family members can improve its acceptance.

Keywords: Contraceptives, Copper-T, ASHA workers, Family planning

INTRODUCTION

Population explosion is probably the most challenging issue India is facing currently. This highlights the urgent need to promote the use of appropriate birth control methods to mitigate the crisis. Despite consistent and rigorous efforts, the acceptance of birth control methods is not widespread and there is an urgent need to meet the unmet contraceptive requirement. Studies suggest about 45% of all pregnancies were unwanted/unintended in the years 2010–2014.[1] Unwanted pregnancies also have a large impact on women health due to unsafe abortions and maternal deaths.[2] According to the factsheet of National Family Health survey-5 (NFHS-5), the total unmet need for family planning methods in currently married women aged 15-49 years is 9.4% and the total unmet need for spacing methods is 4.0%.[3] Contraception can prevent unintended pregnancies.[4] India has implemented several programmes to increase acceptance of family planning and couples' choice-based contraceptive method use.[5-7] Copper-T (Cu-T), an intrauterine contraceptive device (IUCD) is widely available and an effective method for both spacing between two child-births and also for long term contraceptive use. However, data shows, low acceptance of this method across the country. IUCDs accounted for 1.5% of total contraceptives used as per National Family Health Survey-4 (NFHS-4) and this number has marginally increased in NFHS-5.[3,8] As per NFHS-5, IUCDs hold 2.1% of total share of contraceptives being used; 2.7% shares in urban areas and 1.8% in rural areas.[3]

Hence, this survey was conducted to identify the causes of low acceptance of Cu-T among the general population and ASHA workers with key focus on myths widespread around them. The study also tries to identify the concerns of the women about Copper-T and explicit methods that can increase their acceptance.

Objectives

The primary objective of this study was to assess the ground level of awareness among the women of child bearing age group and ASHA workers regarding Cu-T. The secondary Objective was to know the myths among women of child bearing age group and ASHA workers regarding Cu-T. The tertiary Objective was to gather suggestions from the target population (women of child bearing age group) and the promoters (ASHA workers) for improving acceptance of Cu-T as a birth control method.

METHODS

Study participants and study design

This survey was conducted at Department of Obstetrics and Gynaecology, Maharani Laxmi Bai Medical College, Jhansi, Uttar Pradesh, India as a hospital based cross-sectional descriptive study conducted from January to April 2025.

Inclusion criteria

All women aged 15-49 years coming to Department of Obstetrics & Gynaecology, MLB Medical College, Jhansi, Uttar Pradesh, India was included. Similarly, all ASHA workers accompanying the patients to Department of Obstetrics & Gynaecology, MLB Medical College, Jhansi, Uttar Pradesh, India were included.

Exclusion criteria

Women working in healthcare sector as nurses and doctors were excluded. Also, the women who had already opted for permanent methods of contraception were not included in this study.

Sample size calculation

Assuming 59%of the subjects in the population have the factor of interest, the study would require a sample size of 190 for estimating the expected proportion with 7% absolute precision and 95% confidence. This number has been rounded off and a sample size of 200 women is chosen. All the ASHA workers accompanying the women to MLB Medical College, Jhansi during the study period were included.

Data collection

A total of 200 women coming to the hospital (both admitted and OPD Patients) and 100 ASHA workers of Bundelkhand region accompanying those women were included in this survey. Participation was voluntary and no incentives were given. Two detailed questionnaires were prepared patients and ASHA workers and they were asked to fill the form. Language assistance wherever needed was provided by the investigators. The data was then compiled in an excel worksheet and analysed by two independent reviewers. Any discrepancy was resolved through mutual discussion.

Validity and reliability of the tool

Two different questionnaires were used in this survey for patients and the ASHA workers. For the patient's questionnaire used was divided in four different sections-Demography, General awareness about Copper T, Myths and Misconceptions about Cu-T and Interest in further education and use. The questionnaire for ASHA workers on the other hand was divided into 4 sections-Demographics, current knowledge about Cu-T problems they face while promoting Cu-T and suggestions to improve the acceptance of Cu-T.

Ethical clearance

Institutional Ethical Clearence was taken before the study was started. The Ethical Certificate Number is: 2048/IEC/I/2025-2026.

RESULTS

A total of 200 women were studied in this study. Figure 1 shows the distribution of women included in this study according to their age groups. Among the women who were included in this study, 88.5% of the women in this study were married, 9% were single and 2.5% of the women admitted being in a relationship. Figure 2 shows the educational levels of women included in the study. Majority of women (40%) were educated till high school. 93% of the women visiting the hospital had heard about the Copper T but only 56% of them knew about its use as a contraceptive. Women were also enquired about the effectiveness of Copper-T. Their responses have been depicted in the Figure 3 (numbers in figure suggest the number of women in each category).

When these women were asked if they would consider Copper T for contraception, only 36% women agreed in affirmation. Although 100% women showed varied concerns regarding use of Copper T. Figure 1 shows the different concerns raised by women in the study. The ASHA workers included in the study were predominantly >40 years of age (65%). Figure 5 (a) shows the distribution of ASHA workers according to their age groups and Figure 5 (b) shows the distribution of women according to their experience. Among the ASHA workers, 88% had heard of Copper T as contraceptive but out of these 2% had a misconception that it is a permanent method of contraception. When these ASHA workers were asked on how they can get Copper T inserted, it was

found that 45% of the ASHA had misconception that Copper T can be inserted at Anganwadi centres and at their homes also. Figure 6 (a), (b) and (c) represent the data on ASHA workers in pictorial form. 81% of ASHA workers encountered women who tried Copper T, had it removed before its lifespan. Infact, 84% of the ASHA workers agreed that long term use of Copper T can cause adverse effects on women's overall health and wellbeing. This highlights the major gap in knowledge of service providers of healthcare system who themselves are lacking awareness.

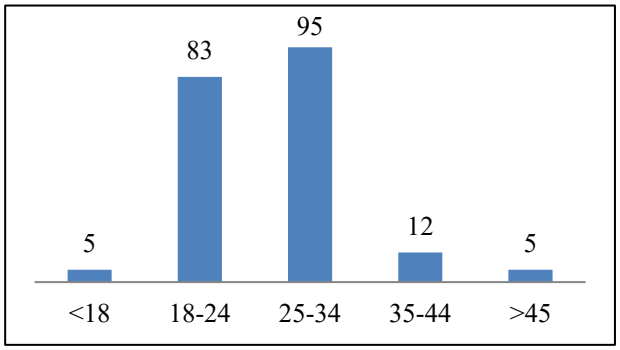

Figure 1: Distribution of women according to age groups.

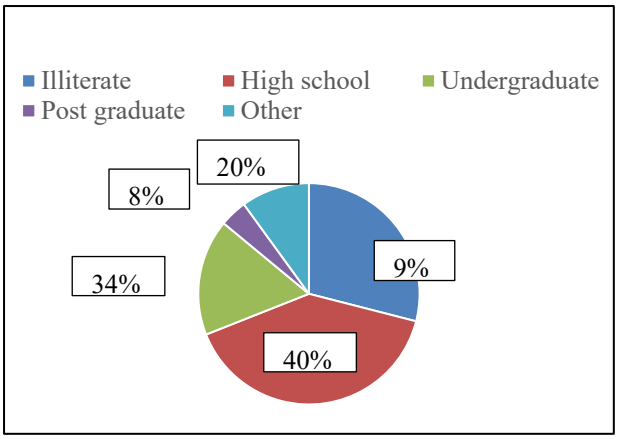

Figure 2: Division of women according to their educational levels.

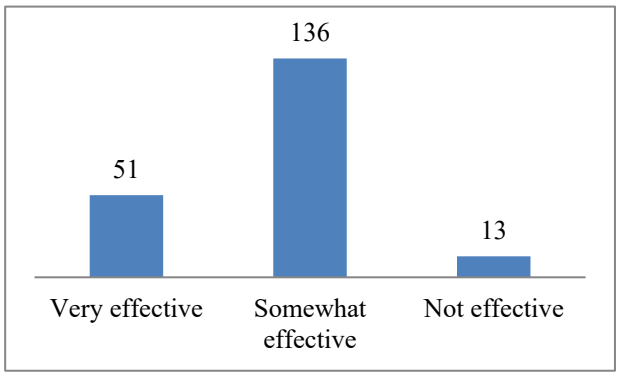

Figure 3: Division of women according to their Perception about Cu-T.

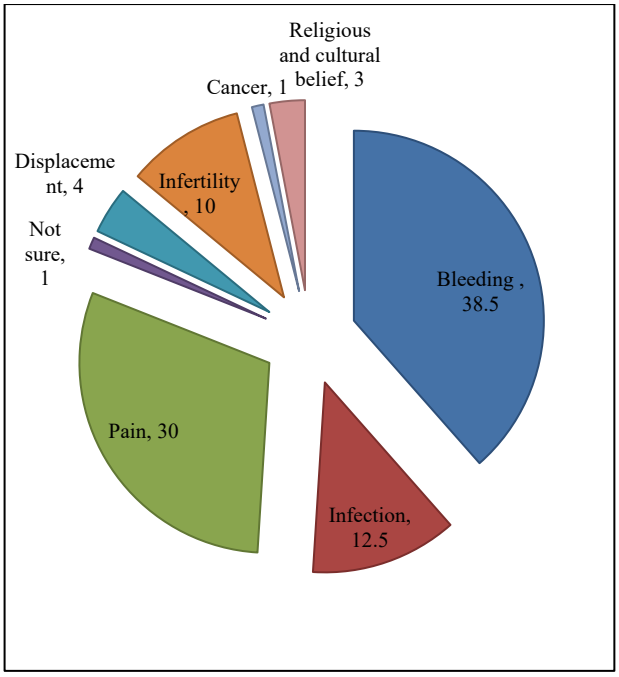

Figure 4: Concerns raised by women regarding use of Cu-T as a contraceptive.

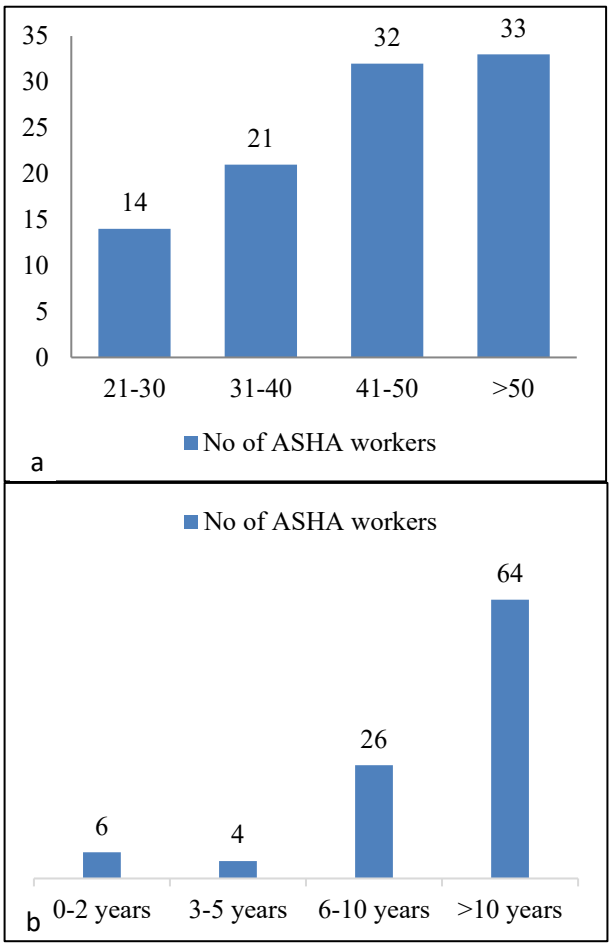

Figure 5: (a) Distribution of ASHA workers according to their age; (b) distribution of ASHA workers according to their working experience.

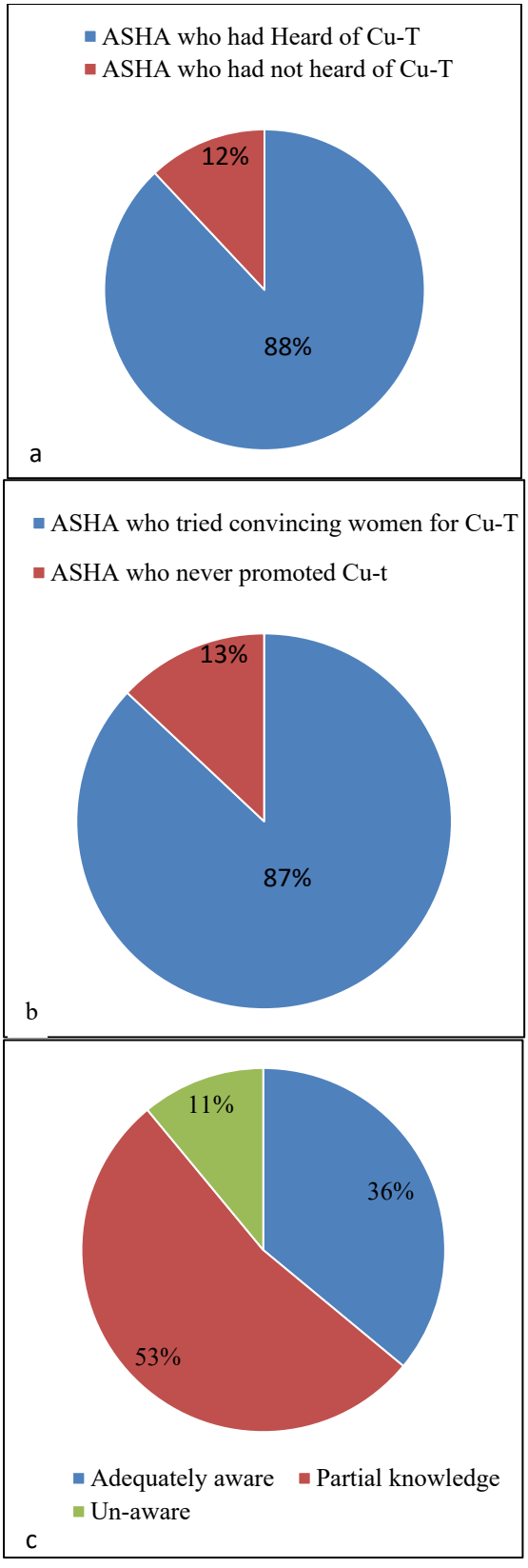

Figure 6: (a) Distribution of ASHA workers based on whether they had heard of Cu-T or not; (b) distribution Cu-T based on whether they had ever tried convincing a woman for Cu-T; (c) distribution of women according to ASHA workers based on their knowledge about Cu-T.

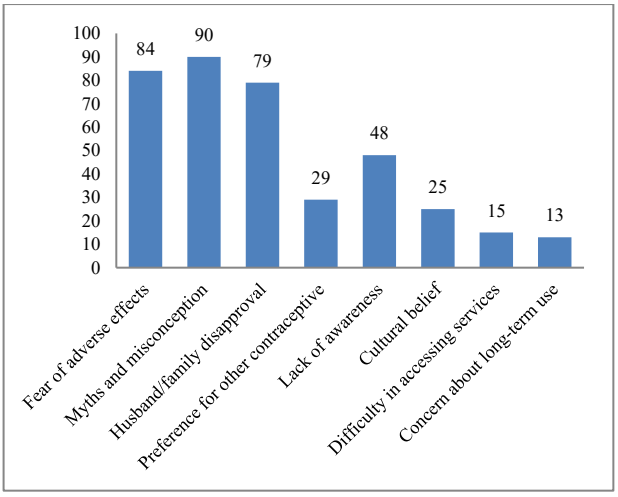

Figure 7: Reasons for low acceptability of Copper T as per ASHA workers.

Figure 7 shows the common reasons according to ASHA workers for low acceptability of Copper T. 87% ASHA workers agreed that they have ever counselled women for Copper T but 46% of those ASHA workers said that they did not feel comfortable while educating women about this contraceptive. 89% of the ASHA workers agreed that they have received a formal training on Copper-T. However, 86% of the ASHA workers admitted that they can improve their work with more training, better communication and improved information and education. When the ASHA workers were asked for suggestions to increase the acceptance of Copper T. They suggested counselling, providing incentives to women, involving men and family members and busting myths on Copper T.

DISCUSSION

This study was aimed to observe the knowledge, attitude and practices related to Copper-T among women of reproductive age group and ASHA workers. In the study maximum women belonged to the age group of 25-34 years i.e., 47.5% (95) which is comparable to the findings of Kaur et al.[9] 93% of women visiting the hospital in our study reported that they had heard about Copper T which is significantly higher than 68.25% as reported by Sharma et al.[10] In this study authors found that 56% of women knew about Copper T as a contraceptive which is comparable to the findings of Singla et al who reported that 59.3% had an average level of knowledge regarding the use of copper T.[11] On the other hand, Malhan et al reported in their study that 74.2% participants had knowledge about Cu-T as a method of contraception, which is much higher as compared to our study.[12] According to our study, the most common concern raised by women about Copper T was excessive menstrual bleeding (38.5%), followed by pelvic pain (30%) followed by risk of infections (12.5%). These concerns are consistent with the findings of Singal et al who conducted a study to assess the outcomes of post-placental Copper-T insertion in women undergoing caesarean section.[13]

Their study also revealed menstrual complaints, excessive vaginal discharge and persistent pelvic pain as the most common adverse effects at 1 year follow up. Garg et al, found in their study that 79.3% women did not have any complaints and only 11.8%, 1% and 7.4% women had only heavy menstrual bleeding, only lower abdominal pain and both symptoms respectively. This highlights the difference between the occurrence of side effects and the widespread myths around Copper-T.[14] Iyengar et al found in their study the reasons for non-acceptance of Copper-T included: non willing husband (42.85%), fear of complication (42.85%) and fear of failure (14.28%).15 Similarly, 39.5% women in our study also reported aversion to Copper T due to an unwilling husband and 42 % had fear of side effects.

The primary limitation of this study was that it was conducted at a single center, which may limit the generalizability of the findings to a broader population. Also, the study was conducted at a single point of time, therefore changes in belief pattern with time could not be studied. Lastly, the study is based on self-reported responses, leading to recall bias and unintentional influence of the interviewer on the study population especially on culturally sensitive topics like choice of contraceptives.

CONCLUSION

This study brings out the gap between the knowledge of healthcare providers i.e., ASHA workers and the challenges they face in accomplishing their role. There is also widespread misconceptions among the women of reproductive age group. Improved education, training and awareness campaigns are needed to improve the acceptance of Copper-T.

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Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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