

## ORIGINAL ARTICLE

# Role of Artistic Copper-T Shiksha Model to sensitize women for the use of Copper–T as a safe contraceptive

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### ARTICLE CYCLE

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### ABSTRACT

The contraceptives are integral part of healthy sexual life. The choice of contraceptives depends on family planning and will of couple specially woman. Copper-T, an intrauterine device (IUD) is one of the most effective, cheapest and reversible contraceptive methods. It can be used for both spacing and birth control and it has minimum side effects as compared to other contraceptives. But it is highly neglected contraceptive though Copper- T has High pearl index and has less failure rate than other temporary contraceptive methods. As most of women are unaware of its potential significance & refuse it after misconception of perforation of uterus and expulsion. Copper-T Shiksha Model is innovative way of contraceptive counselling by artistic presentation to female and her family even in presence of children. It is based on the Arts Integration Approach and Neuro-linguistic programming. Copper-T is promoted as ornament of uterus instead of sharp object and displayed beautifully with a framed painting with significant meaning of contraception by famous artist Rahul Bhandare. Woman is also warned of side effects of Copper-T and conditions like excessive bleeding. It boosts up faith and confidence in contraceptive method. Both hand cards and clinic model is used in awareness. 400 women were selected randomly in group meets, door to door survey and individual counselling.

### KEYWORDS

Child; Male; Female; Copper; Family Planning Services; Neurolinguistic Programming; Privacy; Touch; Contraception; Contraceptive Agents; Intrauterine Devices; Counselling; Risk Assessment; Uterus

### INTRODUCTION

The copper T (IUD) is one of most effective method of contraception that acts on the dissolution of the copper metal into uterine cavity (1). Copper-T devices are copper wire wrapped on T shaped plastic frame (polyethylene frame), For Example, Copper T,

CuT380 A, Multiload 375 etc. Copper ions generate the inflammatory response in genital tract and decrease rate of fertilization by killing spermatozoa (2).The intrauterine device (IUD) is used by more than 150 million women around the world. It has very low failure rate of less than 1 per 100 women in the first year of

use. Even after 5 years, approximately 50% of all women, who have a Copper T-380A inserted, will continue to use it. (3) The parous women can use device for spacing and Women who are at least 35 years old can use until menopause with a negligible risk of pregnancy (4). It is also safe in Null gravid Women (5).

However, IUDs can cause some serious complications, such as bleeding, uterine perforation and bowel perforation (6). Removal of IUD can be both medical and non medical reasons medical reasons can be bleeding, excess pain or infection (7). There are other Non-medical reasons, such as family opposition, child death or remarriage (8).

The incidence of uterine penetration is affected by the IUD type, the timing of insertion related to pregnancy termination, insertion technique and the experience of the operator (9). Few cases of cervical perforation have been observed in a series of CuT-200(10). IUD insertion in 0-3 months postpartum increased the risk of uterine perforation. It is safer to postpone IUD insertion until 6 months after delivery (11). First-year expulsion rates of the IUD are 2–10% and it varies with IUD type (12). Other contraceptives are also unsafe e.g. the use of oral contraceptives can cause epithelial ovarian cancer (13)

In developing countries, Copper-T is used by 14.5% of women of reproductive age with

highest use in Eastern Asia and in the developed world; this percentage is 7.6% with lowest use in North America (14). In India, The common fear regarding Cu T were fear of malignancy (38 %) and fear of menorrhagia (36.4 %). Family played important roles in decision regarding PPIUCD insertion and refused the same in 59 % of cases. Awareness of PPIUCD is low despite good education of family, leading to high refusal rates due to appropriate counselling (15).

### MATERIAL & METHODS

For this study, both Clinical model and hand cards of copper-T shiksha model are used as material along with survey forms.

**Copper-T Shiksha Model:** An educative model to showcase copper –T with privacy in a presentable manner and explain the use, benefits and risks as one of the best contraceptives. There are 3 components of copper-T shiksha model. 1.Fixed frame 2.Back ground artwork- this is warli painting by famous artist Rahul Bhandare. Painting depicts a woman doing some procedure pelvically to another female, surrounded by 165 women helically. 3. Display of any type of copper T (copper-T 300, copper-T 375, copper-T 380 A etc.).

### Model 1: Copper-T Shiksha Model, an educative model



There are 2 types of benefits of copper-T shiksha Model- Informative and psychological

- Informative: we can explain uses, benefits ,risks and availability of copper-T
- Psychological: 1. Privacy of woman 2. No need to touch Copper-T as that leads to rejection most of times. 3. Kids cannot see

copper-T directly 4. Male partner or in laws are also educated by this model.

**Study Design:** A community-based cross-sectional study.

**Study Setting:** This study was conducted in slum area of urban block of Punjab, situated in Sri Muksar Sahib.

**Study Duration:** 1st February, 2020 to 14th September, 2022

**Inclusion Criteria:** The target group was women of reproductive age group.

**Sampling Strategy:** Door to door survey was done in February, 2020 and 2021 study. Survey form and consent forms were filled by 13 ANMs and 35 ASHAs showing and explaining of copper-T shiksha model to each household woman along with survey. 4 group meets were organized in 2022 in same slum area in which copper-T shiksha model was explained by team of medical officer and mass media and survey forms were collected by ANMs and ASHAs.

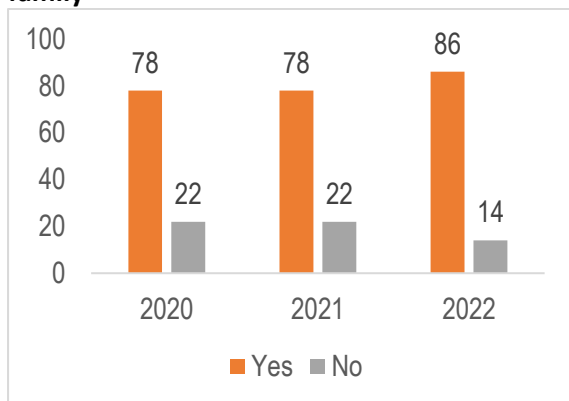
**Sample Size:** Required sample size was 400.

**Data Collection Tool:** Face to face questionnaire was used for survey form. Both qualitative and quantitative research approaches were used to collect data. It combined many types of questions, such as open ended and closed ended queries.

**RESULTS & DISCUSSION**

According To surveys, in 2020 and 2021, 78% women had completed their families where as in 2022, 86% women had already completed their families.

**Figure 1: Frequency based on completion of family**



**Table 1: Frequency based on earlier knowledge of women about contraceptives**

Type of contraceptive method	2020	2021	2022
CC	64.0	42	44
MALA-D	12.0	12	14
TUBECTOMY	14.4	13	8
COPPER-T	4.0	26	32
ANTRA	5.6	5	2

**Table 2: Frequency based on number of children of participants**

No. of children	2020	2021	2022
1	25.6	30	30
2	60.8	47	56
3 and above	13.6	23	14

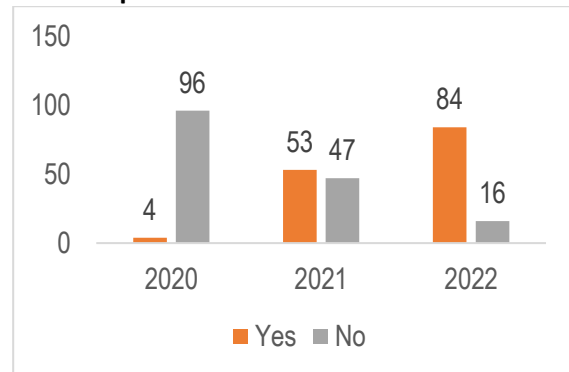
**Table 3: Frequency based on history of unnatural abortions (by taking pills) by participants due to lack of proper contraceptive use**

Particulars	2020	2021	2022
Yes	40.8	40	32
No	59.2	60	68

**Table 4: Frequency based on willingness for effective and easy solution for birth control**

Particulars	2020	2021	2022
Yes	92	87	82
No	8	13	18
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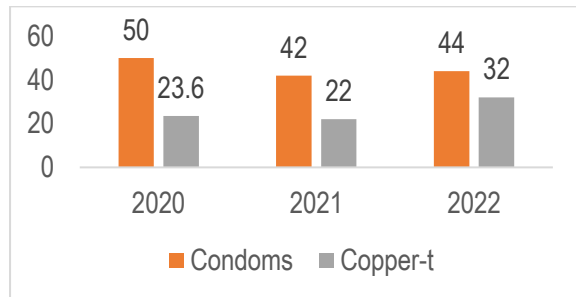
**Figure 2: Frequency based on seeing copper-T contraceptive first time in lifetime**



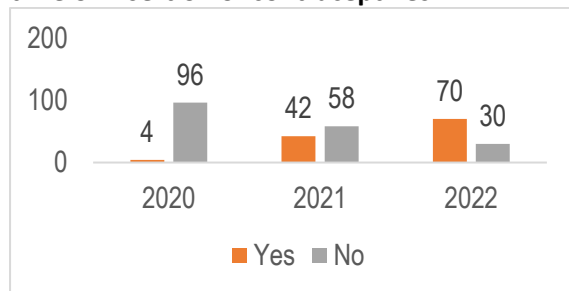
There is no provision of Copper-T display to women so they get more suspicious towards its use. Our aim was to motivate them from forcibly used contraceptive to friendly contraceptive when 84% women had seen copper-T through Copper-T Shiksha Model in 2022 as compared to 4% in 2020. It has increased awareness up to 80% in 3 years.

After motivation with copper-T shiksha model in 2020, 24% reproductive women adopted copper-T as contraceptive which was 22% in 2021 and further increased to 32% in 2022.

**Figure 3: Frequency based on acceptance of copper-T contraceptive as compared to condom after counselling with copper-T Shiksha Model**



**Figure 4: Frequency based on knowledge of time of insertion of contraceptives**



At the end of survey, women were also made aware of insertion of copper-T within 48 hours of child birth which will help obstetricians to keep copper-T after delivery in future. Awareness about right time of insertion of copper-T in uterus has increased from 4% in 2020 to 70% in 2022.

### CONCLUSION

After motivation with copper-t shiksha model in 2020, 24% reproductive women adopted copper-T, which was 22% in 2021 and further increased to 32% in 2022. Copper- T has made a good choice in women’s contraceptive methods after our awareness camps in 3 years. Copper T shiksha model helped us to clear concepts of women while taking meetings or individually. It cleared their misconceptions about copper T and informed them about benefits of copper-T along with availability services near to their home. Women got clarity about misconception about copper T like it is not safe for uterus while counselling with model or It perforates uterus and causes excessive bleeding. They were aware of benefits of Copper T and informed about facilities of Copper-T insertion available at Civil Hospital/ Dispensary/ PHC/private sector.

### AUTHORS CONTRIBUTION

All authors have contributed equally.

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Nil

### CONFLICT OF INTEREST

There are no conflicts of interest.

### REFERENCES

1. Verónica Arancibia, Claudia Pena, Herbert E Allen, Gustavo Lagos, Characterization of copper in uterine fluids of patients who use the copper T-380A intrauterine device, 2003;332(1-2):69-78.
2. Maria Elena Ortiz, Horacia B corixatto , Copper-T intrauterine device and levonorgestrel intrauterine system: biological bases of their mechanism of action, 2007;75(6 Suppl):S16-30.
3. Bliss Kaneshiro & Tod Aebey, Long-term safety, efficacy, and patient acceptability of the intrauterine Copper T-380A contraceptive device, 2010;2:211-20.
4. Justine P. Wu, Sarah P, Extended use of the intrauterine device: a literature review and recommendations for clinical practice, 2014;89(6):495-503.
5. Janina Kaislasuo, Oskari Heikinheimo, Pekka Lahteemaki, Satu Suhonen, Predicting Painful or Difficult Intrauterine Device Insertion in Nulligravid Women, 2014;124(2Pt 1): 345-353
6. Hideo Takahashi, Krista M Puttler, Cheuk Hong Alexander L Ayzengart, Sigmoid Colon Penetration by an Intrauterine Device: A Case Report and Literature Review, 2014;179(1):e127-9
7. David Hubacher, Sonia Lillo, Ana Zepeda, Pai-Lien Chen, Horacio Croxatto, Pain from copper intrauterine device insertion: Randomized trial of prophylactic ibuprofen, 2006 Nov;195(5):1272-7
8. K Iyenger, S D Iyenger, The Copper-T 380A IUD: A ten-year alternative to female sterilisation in India, 2000;195(5):1272-7.
9. Anil Arslan, Mine Kanat Pektas, Huseyin Yesilyurt, Umit Bilge, Colon penetration by a copper intrauterine device: a case report with literature review, 2009;27993):395-7
10. Damrong Rienprayura M. D., S Phaosavasdi, P Somboosuk, Cervical perforation by the copper-T intrauterine device, 1973;7(6):515-21
11. E. Caliskan, N Ozturk, B O Dilbaz, S Dilbaz, Analysis of risk factors associated with uterine perforation by intrauterine devices, 2003;8(3):150-5
12. Tessa Madden, Colleen McNicholas, Qihong Zhao, Gina M Secura, David L Eisenberg, Jeffrey F Peipert, Association of Age and Parity with Intrauterine Device Expulsion, 2014;124(4):718-26
13. Daniel W. Cramer, G B Hutchison, W R Welch, R E Scully, R C Knapp, Factors Affecting the Association of Oral Contraceptives and Ovarian Cancer, 1982;307(17):1047-51
14. Catherine d’arcangues et al, Worldwide use of intrauterine devices for contraception, 2007;75(6 Suppl):S2-7
15. Aruna Nigam, Ayesha Ahmad, Anshu Sharma, Poonam Saith, Swaraj Batra, Postpartum Intrauterine Device Refusal in Delhi: Reasons Analyzed, 2018;68(3):208-213.