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

Seema Goyal¹, Gurinder Bir Singh², Ranju Singla³
¹Ex- Epidemiologist & Medical Officer, Sri Muktsar Sahib, Punjab
²Health & Family Welfare, Punjab
³Civil Surgeon Office, Sri Muktsar Sahib, Punjab

CORRESPONDING AUTHOR
Dr. Seema Goyal, Ex- Epidemiologist & Medical Officer, Civil Surgeon Office, Srimuktsar Sahib, Punjab 152026
Email: seemlectures726@gmail.com

CITATION
https://doi.org/10.47203/IJCH.2023.v35i04.014

ARTICLE CYCLE
Received: 08/11/2023; Accepted: 18/12/2023; Published: 31/12/2023

This work is licensed under a Creative Commons Attribution 4.0 International License.
©The Author(s). 2023 Open Access

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 perforation 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. Background 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

a) Informative: we can explain uses, benefits, risks and availability of copper-T

b) 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 Muktsar 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 whereas in 2022, 86% women had already completed their families.

Figure 1: Frequency based on completion of family
![Graph showing frequency based on completion of family]

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

<table>
<thead>
<tr>
<th>Type of contraceptive method</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC</td>
<td>64.0</td>
<td>42</td>
<td>44</td>
</tr>
<tr>
<td>MALA-D</td>
<td>12.0</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>TUBECTOMY</td>
<td>14.4</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>COPPER-T</td>
<td>4.0</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>ANTRA</td>
<td>5.6</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 2: Frequency based on number of children of participants

<table>
<thead>
<tr>
<th>No. of children</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25.6</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>60.8</td>
<td>47</td>
<td>56</td>
</tr>
<tr>
<td>3 and above</td>
<td>13.6</td>
<td>23</td>
<td>14</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Particulars</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>40.8</td>
<td>40</td>
<td>32</td>
</tr>
<tr>
<td>No</td>
<td>59.2</td>
<td>60</td>
<td>68</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Particulars</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>92</td>
<td>87</td>
<td>82</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td>13</td>
<td>18</td>
</tr>
</tbody>
</table>

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.
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 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.

Financial Support and Sponsorship

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.
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