

## Satisfaction of users of copper intrauterine device: Analysis of patients at the family planning outpatient of a public hospital



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### ABSTRACT

**Introduction:** In Brazil, the guarantee to contraception is given through the National Family Planning Policy of 2007, which offers several free contraceptive methods, among them the copper intrauterine device (IUD), a highly effective contraceptive method. **Objectives:** To know the

satisfaction of users with the IUD and specifically to evaluate and identify the interference of side effects in the quality of life of patients. **Methods:** This is a prospective, field-cross-sectional study with a quantitative approach, using a structured questionnaire applied to copper IUD users, inserted in the service and with at least 03 months of use. **Results:** The users were satisfied with the copper IUD (92.6%) and did not report discomfort with the method (59.5%), although 63.0%, 77.8% and 44.5% presented abdominal pain (outside the menstrual period), menstrual colic and increased menstrual flow, respectively. **Conclusion:** Most users were satisfied with the copper IUD, continuing its use, despite the existence of some side effects. The study demonstrated that the IUD is an excellent contraceptive alternative for being effective, having a prolonged action, reduced cost and with good satisfaction among users.

**Keywords:** Copper intrauterine device (Cu), Family planning outpatient clinic, Satisfaction.

## 1 INTRODUCTION

Knowledge about contraceptive methods should be related to the prevention of unwanted pregnancy, induced abortion, maternal mortality and other health problems related to reproductive morbidity and mortality (VIEIRA, et al., 2012). Thus, in 1996, Law No. 9,263 was created, which obliges the Unified Health System (SUS) to guarantee assistance to conception and contraception, as part of the actions that constitute integral health care (GINECO, 2023).

In addition, family planning is ensured by the Brazilian Federal Constitution, which determines as the responsibility of the State to offer conditions for citizens to have access to information, which concerns the control of their fertility (BRASIL, 1996). Thus, the National Family Planning Policy of 2007, through the Unified Health System (SUS) offers several free contraceptive methods, among them stands out the copper IUD (Cu), a highly effective contraceptive method (MCCARTTHY, 2018). Despite the efficacy, IUD adherence in Brazil is still low, with estimated use around 1.9% (BRASIL, 2018), either due to difficulty in accessing information about the wide variety of existing contraceptive



methods, and thus, indicating a mismatch between what is proposed by the family planning program and what is effectively practiced (SOS CORPO, 2017).

There are eligibility criteria for a contraceptive method, defined by the set of characteristics presented by the candidate for the use of a certain method, and which indicate whether or not that person can use it (BEMFAM, 2003; PENTEADO, et al., 2001). In addition, some restrictive criteria such as: client safety, availability difficulties, technical capacity of the health professional and perception of side effects, are observed regarding the eligibility of women for the recommendation and insertion of the IUD (MCCARTHY, 2018). And it should still be very clear, the effectiveness of a contraceptive method and the ability of this method to protect against unwanted pregnancy (PENTEADO et al., 2010). Therefore, ensuring access to known contraceptive methods is as important as ensuring that individuals receive adequate guidance on indications, contraindications and implications of use.

Therefore, knowledge about contraceptive methods can help women choose the most appropriate method for their sexual behavior and health conditions, as well as use the method chosen correctly. Thus, the research had as problematic: What is the level of satisfaction regarding the use of the IUD-Cu method, introduced in women with a desire for contraception attended in a family planning outpatient clinic? It is hypothesized that patients know the advantages of the Cu-IUD and that there are no serious side effects.

The present research is justified from information that in Brazil, the median age of women having their first child is 21 years according to the National Health Survey (BRASIL, 2015) and that, most of the time, pregnancies occurred unconsciously, that is, unplanned (ALMEIDA, 2016). IUD use by populations of women, such as adolescent and nulliparous women, remains low, despite clinical evidence identifying that most women are eligible candidates for IUD use (ACOG, 2015, 2018).

The research had as general objective to know the satisfaction of the users with the IUD-Cu and specifically to evaluate and identify the interference of the side effects in the quality of life of the patients.

## 2 METHODS

This is a prospective, field-based, cross-sectional study with a quantitative approach. Data were collected from October to November 2022 at the Family Planning Outpatient Clinic of Fundação Santa Casa de Misericórdia do Pará (FSCMP), a reference hospital for maternal and child health in the state of Pará, located at Rua Bernal do Couto, 1040 - Umarizal, Belém/Pará.

The research participants were the users of the copper IUD, inserted in the service for at least 03 months of use, attended at the Family Planning outpatient clinic during the data collection period (October and November).



The inclusion criteria of the study were women over 18 years of age, with insertion of IUD-Cu in the FSCMP for at least 3 months, after counseling on contraceptive methods and who agreed to participate in the research, signing a consent form and using the copper IUD exclusively as a contraceptive method. Exclusion criteria were users of Copper IUDs under 18 years of age, less than 3 months old, attended outside the data collection period (October and November) and who did not wish to participate. The research sample consisted of all users of the Copper IUD who met the inclusion criteria, attended during the period established for data collection.

Data collection was performed individually through a structured questionnaire (APPENDIX A), with the purpose of guiding and organizing the information collected about the patient. The variables present in this instrument were: sociodemographic data, obstetric history: number of previous pregnancies, number of living children, number of abortions, desire to become pregnant and data related to the experience of using the Cu-IUD (time of use, satisfaction with the method, complaints/discomfort after placement, change in the frequency of sexual intercourse). The information collected was used solely and exclusively for the execution of the present study.

After data extraction, they were analyzed by Excel 2013. The descriptive analysis of the results was performed by means of relative and absolute frequencies and presented in the form of tables. The association between the satisfaction of the users and the variables studied was evaluated using Pearson's chi-square test and statistical significance was considered when  $p$  was lower than 0.05.

The study was only initiated after the approval of the Research Ethics Committee of the Institution under CAEE number 63456822.8.8.00005171 (Annex 1) and, in accordance with Resolution 466/12 of the National Health Council involving research on human beings and subsequent acceptance of the Informed Consent Form (ICF) (APPENDIX B).

### 3 RESULTS

The study included 27 women treated at the Outpatient Clinic and their demographic characteristics are shown in Table 1.

Table 1. Clinical-demographic characteristics of women treated at the Family Planning Outpatient Clinic of the Santa Casa de Misericórdia do Pará Foundation (FSCMPA). Bethlehem, PA, 2023.

Variables	N*	%
<b>Age/years</b>		
18-24	05	18,5
25-34	15	55,5
> 34	07	25,9
<b>Marital status</b>		
Single	08	29,6
Married woman	17	62,9
Divorcee	01	03,7



Not informed	01	03,7
<b>Schooling</b>		
Incomplete fundamental	03	11,1
Medium complete	13	48,2
Incomplete high school	03	11,1
Complete Superior	04	14,8
Incomplete Superior	04	14,8
<b>Origin</b>		
Belém/RMB**	18	66,7
(Other) Peixe Boi, Santo Antônio do Tauá, São Miguel, Mãe do Rio, Bonito, Ipixuna do Para, Acará, Abaetetuba, São Domingos Capim	09	33,3
<b>Race/Color</b>		
White	02	07,4
Black	03	11,1
Pardon	21	77,8
Yellow	01	03,7
<b>Works</b>		
Yes	14	51,9
No	13	48,2
<b>Household income</b>		
Up to 1 minimum wage	11	40,7
Up to 2 minimum wages	14	51,9
More than 2 minimum wages	02	07,4

\*N: number of women: 27 patients.

\*\*Metropolitan Region of Belém (Sta Isabel, Castanhal, Marituba)

With regard to the sociodemographic variables of the users, analyzed from the study outlined in the profile, where it was found that most of them were between 25 and 34 years old, they came from the Metropolitan Region of Belém (RMB). As for marital status, married women make up the vast majority and less than half are single. The other variables were minimal in relation to these data.

In the variable schooling, less than half had completed high school. Most of them declared themselves mulatto, have paid work and live with a monthly family income of two minimum wages (Table 1).

The variables related to the tocogynecological history of the users, the data obtained, reveal that less than half had only one pregnancy, had a child and more than half did not suffer any abortion. Still, the majority answered that they did not express the desire to become pregnant again, and less than half reported using two or more contraceptive methods before choosing the IUD. (Table 2)



Table 2 – Tocogynecological data of IUD users T Cu 380A. Bethlehem, PA, 2022.

<b>Variables N* %</b>		
<b>Number of pregnancies</b>		
0	01	03,7
1	08	29,6
2	07	25,9
3	06	22,2
4 or but	05	18,5
<b>Number of children</b>		
0	02	07,4
1	12	44,4
2	06	22,2
3	07	25,9
<b>Abortions</b>		
1	10	37,0
2	02	07,4
3	01	03,7
None	14	51,9
<b>You want to get pregnant in the future</b>		
Yes	07	25,9
No	20	74,1
<b>Use of another contraceptive method before the IUD</b>		
Oral contraceptive	03	11,1
Injectable	05	18,5
Condom	04	14,8
Behavioral	01	03,7
Two or more methods	13	48,2
None	01	03,7
Total sample: 27 patients		

Regarding the experience of the users to the use of the IUD T Cu 380A, the majority answered that they were satisfied with the method (Table 3) and among these, most stated that they did not feel discomfort since the insertion of the IUD and less than half did not present increase or reduction in the duration of menstruation, and more than half denied feeling abdominal pain outside the menstrual period. Regarding menstrual colic, most of them reported experiencing colic pain. As for the menstrual flow, less than half answered that it was not altered. In more than half the number of menstruating days had no changes. It was also observed that most of them stated that there was no change in the frequency of weekly sexual intercourse (Table 3).



Table 3- Data on the experience of patients using the IUD T Cu 380A followed at the family planning outpatient clinic of FSCMPA. Bethlehem, PA, 2022.

<b>Variables</b>	<b>N</b>	<b>%</b>
<b>Level of satisfaction with IUD use</b>		
Satisfied	25	92,6
Unsatisfied	02	07,4
<b>Annoyance with the IUD</b>		
Yes	11	40,7
No	16	59,3
<b>Abdominal pain (outside the menstrual period)</b>		
Yes	10	37,0
No	17	63,0
<b>Menstrual colic</b>		
Yes	21	77,8
No	06	22,2
<b>Menstrual flow</b>		
Increase	12	44,4
Decrease	02	07,4
no change	16	48,2
<b>Number of days menstruating</b>		
Increase	10	37,0
Decrease	02	07,4
no change	15	55,6
<b>Frequency of sexual intercourse after use</b>		
Increase	02	07,4
Decrease	04	14,8
No change	21	77,8

Source: survey data (2022).

To verify the statistical significance between the variables studied and the degree of satisfaction of the users of the IUD T Cu 380A, the chi-square test was used, where it was verified that the level of satisfaction is related to six (6) variables surveyed (marital status, paid work, discomfort since the insertion of the method, increased menstrual flow, change in the duration of menstruation and variation in the frequency of sexual intercourse after use), because they obtained a p-value lower than 0.05. (Table 4)



Table 4- Relation of variables researched with significance among the users of the IUD T Cu 380A. Belém, PA, 2022.

Variables	Satisfaction		Total
	Satisfied	Unsatisfied	
<b>Marital status</b>			
<b>Married woman</b>	15 88,3%	02 11,7%	17 100%
<b>Single</b>	07 87,5%	01 12,5%	08 100%
Pearson chi2(2) = 7.313      P = 0,021			
<b>Paid Work</b>			
<b>Yes</b>	12 93,3%	03 06,7%	15 100%
<b>No</b>	10 83,3%	02 16,7%	12 100%
Pearson chi2(2) = 3.622      P = 0,043			
<b>Nuisance</b>			
<b>Yes</b>	04 57,1%	03 42,9%	07 100%
<b>No</b>	18 90%	02 10%	20 100%
Pearson chi2(2) = 8.2221      P = 0,004			
<b>Increased Menstrual Flow</b>			
<b>Yes</b>	10 83,3%	02 16,7	12 100%
<b>No</b>	02 100%	00 0%	02 100%
<b>No change</b>	10 76,9%	03 23,1%	13 100%
Pearson chi2(2) = 5.0929      P = 0,025			
<b>Number of days menstruating</b>			
<b>Increased</b>	10 83,3%	02 16,7%	12 100%
<b>Decreased</b>	02 100%	00 0%	02 100%
<b>No change</b>	10 100%	00 0%	13 100%

Source: survey data (2022).



## 4 DISCUSSION

In view of the data obtained, the age group with the highest number of users of the IUD T Cu 380A, was in the range between 24 and 35 years or more of age, while less than half of the interviewees were in the age group above 34 years. This data differs from the study conducted by Campos et al. (2020), where the age group with the highest number of users of the IUD T Cu 380A, was 35 years of age or older.

In the study conducted by Holanda et al. (2013), the age of the users was 29 years, demonstrating that the users of the IUD are young women included in the reproductive life period.

Regarding the marital status of the interviewees showed that more than half were married, in accordance with the study published by Morais et al., (2021) which showed that 64.2% of 158 women were married or had a steady partner. This data remains one of the criteria for eligibility for the use of the IUD as a contraceptive method developed by the World Health Organization (WHO) in 2007 (VIEIRA et al., 2008; WHO, 2017).

Regarding the level of education, it was found that less than half have completed high school, similar to the data found in the study by Morais et al., (2021); Regianini (2009), where they found a similar percentage of the same schooling respectively.

The information obtained through the tocogynecological antecedents of the users showed that less than half of the patients had only one child, evidencing a reduction in the fertility rate in Brazil, as observed in studies conducted by Morais et al., (2021); Kisnisci (1985), where the average number of children per woman was six in 1950, rising to 1.6 children per woman per year in 2000. Regarding the general satisfaction of the interviewees, the majority expressed being satisfied with the IUD T Cu 380A, corroborating data found in the studies by Borges et al (2017) in which, of the 209 women interviewed, 94.7% were satisfied with the method. Several studies reinforce that the IUD is an efficient method and well accepted by users, because it has longevity in its use (GRIMES, 2019).

Regarding the complaints analyzed, the results revealed that there was no increase in menstrual flow in less than half of the patients, as well as the increase (menorrhagia) since the placement of the IUD in the patients interviewed. This data is similar to that found by De Holanda et al. (2013), who observed the same complaint in 44.7% of the participants. Several studies indicate bleeding and pelvic pain during the use of the copper IUD (CHEN et al., 2010). This fact is justified because the IUD continues as a foreign body in the endometrium, causing a more pronounced inflammatory reaction of the same.

The evaluation of the satisfaction of the users of the intrauterine device T CU 380A showed that most of the interviewees were satisfied with the IUD-Cu, evidencing what is described in the qualitative study by Silva (2011), about the importance of the integrated work carried out by several





health professionals in the clarification and assistance to the woman and the couple in the search for adequate contraception. Thus, corroborating to an increasing number of choices for this method.

In a study SCHMIDT et al., (2015) in a study of satisfaction of the IUD-Cu, found that users opted for the use of the same as a reliable contraceptive method, when asked about what motivated to choose this method, reported that they felt that it was a 100% safe method, which brought peace of mind and also the benefit of the duration of 10 years.

Other studies show several benefits of the IUD-Cu, such as: not containing hormones, symptoms such as bloating, fluid retention, nausea, headache or decreased libido that can occur with the use of hormonal methods, are rarely observed in users of the copper IUD (BORGES et al., 2017; HUBACHER et al., 2013; PEIPERT et al., 2011).

## 5 CONCLUSION

In this study, it was observed that most users of the IUD T Cu 380A are between the age group of 25 to 34 years, coming from the metropolitan region of Belém, are married or have a fixed partner, with a high school education, have paid work, live with a monthly family income of one minimum wage, were satisfied with the copper IUD, continuing its use, despite the existence of some discomforts such as increased flow and the days of menstruation.

The IUD is an effective alternative to reduce the number of unplanned pregnancies, thus decreasing their well-known negative repercussions. IUD insertion can be an excellent contraception option because it has a prolonged action, reduced cost and few side effects.

Brazil has high rates of unplanned pregnancies, impacting several aspects such as: individual, family, social and economic, induced abortions and their respective complications.

The findings confirm what research has pointed out: users of more effective contraceptive methods - long-lasting and reversible - such as the IUD - Cu - are satisfied, and this result may help increase the offer of this type of method by the SUS.

Finally, it is important to approach the subject, so that a greater number of women can know more about the contraceptive methods available, thus being able to choose the method that best adapts, thus reducing the rates of dissatisfaction.



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