# SARC and LARC: degree of knowledge and frequency of use in a reference hospital complex in Paraná

SARC e LARC: grau de conhecimento e frequência de uso em complexo hospitalar de referência no Paraná

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# Abstract

Introduction: Contraceptive agents represent an essential element in reproductive life and family planning. The knowledge extension for women about that subject influences choices for certain contraceptive methods. **Objective:** The aims of this study were to determine the age and socioeconomic profile of the patients of the Human Reproduction Clinic in the Hospital Complex of Federal University of Paraná and to evaluate their knowledge and use of short--acting reversible contraceptives (SARC) and long-acting reversible contraceptives (LARC), in order to idenfity information gaps that could cause unplanned pregnancies and direct future educational strategies on contraceptives. Methodology: We conducted interviews using objective questionnaires applied to female patients aged from 18 to 50 years old before or after their medical appointment, asking about their knowledge of the existence of diverse contraceptive agents, type of contraceptive utilized and duration of use, presence, number and reasons for unplanned pregnancies. **Results:** The main results indicated that the group was mostly young and highly educated, utilizing SARC and LARC in similar frequencies. The knowledge of the existence of the contraceptive agents was satisfactory and the most popular methods were the contraceptive pill and the Coopper IUD. *Unplanned pregnancies were present in the reproductive* life of 60% of the patients and the most common reasons for these events was the non use of contraceptives. There

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was no association between the use of SARC or LARC and a higher number of unplanned pregnancies. The number of contraceptives known by women without previous history of unintended pregnancy was a median higher than those of women with those events. **Conclusion:** Hereafter, the approach to patients in the Human Reproduction Clinic in the Hospital Complex of Federal University of Paraná should be directed to young and highly educated women, with broad knowledge about contraceptive agents. It is important that health professionals of the clinic guide patients aiming to reduce the local unplanned pregnancy rates.

*Keywords*: Contraceptive agents, Unplanned pregnancy, *Knowledge* 

#### Resumo

Introdução: Contraceptivos representam um elemento essencial para a vida reprodutiva e para o planejamento familiar. O grau de conhecimento das mulheres sobre esse tema exerce influência sobre suas escolhas por determinados métodos anticoncepcionais. Objetivos: os objetivos deste estudo foram traçar o perfil etário e socioeconômico das pacientes do Ambulatório de Reprodução Humana do CHC-UFPR e avaliar seu conhecimento e uso de contraceptivos de curta e de longa ação (SARC e LARC), de forma a identificar lacunas de informação que pudessem ocasionargestações não planejadas e direcionar futuras estratégias educativas sobre contraceptivos. Métodos: Conduzimos entrevistas por meio de questionários objetivos aplicados a pacientes do sexo feminino entre 18 e 50 anos na ocasião de suas consultas, indagando-as sobre sua ciência da existência de diversos anticoncepcionais, tipo de método utilizado e tempo de uso, presença, frequência e motivos para gestações não planejadas. **Resultados**: Os principais resultados indicaram um grupo de pacientes jovens e com alta escolaridade, cuja utilização de métodos anticoncepcionais era semelhante entre SARC e LARC. O conhecimento dos anticoncepcionais foi satisfatório, principalmente entre os mais populares como anticoncepcional hormonal oral e DIU de cobre. Gestações não planejadas estiveram presentes na vida reprodutiva de 60% das pacientes, sendo o principal

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motivo o não uso de contraceptivos. Não houve associação entre uso de SARC ou LARC e maior número de gestações indesejadas. O número de contraceptivos conhecidos por mulheres sem gestações indesejadas foi uma mediana maior do que aquele das mulheres com esses eventos. **Conclusão**: A abordagem das pacientes do ambulatório da Reprodução Humana do CHC-UFPR deve ser direcionada para pacientes jovens, com alto grau de instrução e amplo conhecimento sobre contraceptivos. É importante que os profissionais de saúde do local busquem orientá-las de forma a reduzir a taxa de gestações não planejadas.

*Palavras chave*: Anticoncepcionais, gravidez não planejada, Conhecimento

# Introduction

According to estimates by the United Nations (UN), in 2025 approximately 80% of Brazilian women will use some type of contraceptive<sup>(1).</sup> This data highlights the importance of family planning on women's health. Reversible contraceptives are didactically divided into short action, from English short acting reversible contraceptives (SARC) and long action, from English long acting reversible contraceptives, there are the copper intrauterine device (copper IUD), the Levonorgestrel releasing intrauterine system (IUS-LNG) and the subdermal implants<sup>2</sup>. Short-acting drugs, on the other hand, include hormonal oral contraceptives, condoms, monthly and quarterly injections, transdermal patches and a vaginal ring<sup>(2)</sup>.

Contraceptive use can be classified as typical and perfect. Typical use includes incorrect or inconsistent use of contraceptives, whereas perfect use represents the correct and consistent use for a given method<sup>(3)</sup>.

The degree of knowledge of women of reproductive age about reversible contraceptives is an important factor in directing medical conducts<sup>(4)</sup>. The information offered by health professionals and their transmission vehicle – addressing how to use contraceptives, side effects and contraceptive efficacy - contributes to the decision process for a particular contraceptive<sup>(5)</sup>, always safeguarding the patients' autonomy<sup>(6-7)</sup>. Characteristics such as age, education, marital status and personal experiences, such as unplanned pregnancies, influence patients' perceptions and attitudes towards certain types of contraceptives<sup>(4,8-9)</sup>, as well as the choice not to use them<sup>(10)</sup>.

Among the consequences of the lack of information about reversible contraceptives, there are unplanned pregnancies<sup>(11-12)</sup>. These events generate social and individual impacts such as financial losses - both family and public – and lack of preparation of the family structure to receive the child<sup>(2,13)</sup>. To prevent them, it is important to look for possible factors related to their occurrence, such as the type of contraceptive method used and the extension of knowledge about contraceptives<sup>(14)</sup>.

The present study conducted interviews at the Human Reproduction outpatient clinic of CHC-UFPR, containing 18 objective questions, in a sample of 150 female patients between 18-50 years old, estimating to select those in the fertile period. There are no other studies carried out at CHC-UFPR that characterize the profile of patients seen at the site or their knowledge on the subject. The aim of this study was to assess the degree of knowledge about SARC and LARC and their main gaps, as well as to identify the frequency of unwanted pregnancies in the sample and the main reasons for occurrence. Based on the results of this work, it will be possible to guide health professionals in the area regarding the age and socioeconomic profile of the patients treated. With this information, it would be possible to target future information strategies on reversible contraceptives.

# Methodology

# Sampling

This is an individual monocentric cross-sectional observational study, whose sampling belongs to a group of patients at the Human Reproduction Clinic of the Hospital de Clínicas Complex of the Federal University of Paraná. Women between 18 and 50 years old who follow up at the Human Reproduction Clinic of CHC-UFPR were included in the study. Their appointments should be scheduled between December 2019 and March 2020 (estimated time according to the number of patients seen per day and the availability of a single interviewer), and the participants should have agreed and signed the informed consent form, approved by the Human Research Ethics Committee of CHC-UFPR (Opinion 3,791,175; CAAE 19842919.5.0000.0096). The only exclusion criterion was refusal to sign the Informed Consent Form (ICF). Among patients, 150 were interviewed. The sample size was estimated in order to represent a considerable portion of the patients who followed up at the outpatient clinic, as well as according to the availability of a single interviewer.

# Data collect

Based on the patient's approach and signing the informed consent form, data collection was carried out through an interview with 18 objective questions (Appendix 1) that covered the following topics: patient identification, current contraceptive and time of use, previous contraceptive and time of use, knowledge of the existence of each contraceptive, assessment of your own knowledge, source of preferred knowledge, assessment of medical conduct and unplanned pregnancies. The interview took place before or after the consultation, depending on the patient's availability.

#### Statistical analysis

The variables age group, marital status, education level, use/non-use of current contraceptives, type of current contraceptives and their time of use, use of previous contraceptives, knowledge about each contraceptive method, assessment of their own knowledge, interest in receiving more information and how to pass on information, evaluation of medical conduct and presence/number/reason for unwanted pregnancies were described by absolute and relative frequencies. The proportion shown (Table 1) is relative to the total number of participants whose answer was recorded correctly, so the total may vary between questions.

The variables number of known contraceptives and presence/absence of unwanted pregnancies were compared using the Mann-Whitney test (Table 4). The other comparisons (Table 4 and Table 5) were performed using the Chi-square test. The variables number of known contraceptives and number of unwanted pregnancies were compared using the Kruskal-Wallis test (Table 6). The value of statistical significance for all comparisons was p <0.05.

#### Results

The sample was composed mainly of young women, with an average of 31.34 years. More than half (56.7%) of the interviewed patients were in the age group from 18 to 35 years old, with 32.7% of these being under 26 years old. Women over 45 years old

Table 1				
Patient characteristics and types of contraceptives used				
		Number of patients	Percentage of c ategory total	
	18 - 26 years old	49	32.7%	
	27 - 35 years old	51	34.0%	
Age group	36 - 44 years old	41	27.3%	
	45 - 50 years old	9	6.0%	
	Single	63	42.0%	
Marital status	Stable union	29	19.3%	
Maritai status	Married	46	30.7%	
	Divorced	12	8.0%	
	Elementary school (incomplete)	8	5.3%	
	Elementary school (complete)	13	8.7%	
Verse of stude	High school (incomplete)	18	12.0%	
fears of study	High school (complete)	63	42.0%	
	College (incomplete)	17	11.3%	
	College (complete)	31	20.7%	
Current use of contro contine	Yes	112	74.7%	
Current use of contraceptive	No	38	25.3%	
	Pill	23	20.5%	
	Copper IUD	56	50.0%	
The second se	Monthly injectable	4	3.6%	
Type of current contraceptive $(n - 112)$	Quarterly injectable	8	7.1%	
(11 = 112)	Condom	4	3.6%	
	Implant	2	1.8%	
	Mirena IUD	17	15.2%	
	Pill	110	78.0%	
	Copper IUD	13	9.2%	
The second se	Monthly injectable	39	27.7%	
Type of previous contraceptive $(p - 141)$	Quarterly injectable	44	31.2%	
(11 – 141)	Condom	90	63.8%	
	Vaginal ring	2	1.4%	
	Patch	1	0.7%	

represented only 6% of the sample (Table 1). Most (42%) of the interviewees presented themselves as single (Table 1). As for education, more than 2/3 of the sample (74%) had studied up to high school or more (incomplete college and complete college) (Table 1).

At the time of the interview, 112 of the 150 women were using some form of contraception (Table 1). Of these, 67% of patients were using LARC and 34.8% were using SARC (Table 1). The sum results in a value greater than 100% as some patients used more than one contraceptive method simultaneously. Among those who used LARC, the copper IUD was preferred by the patients - approximately 3 times more used than the SIU-LNG. The subdermal implant was rarely used only 1.8% of patients chose this method. Prior to data collection, SARC stood out as the most used, mainly oral hormonal contraceptives (78.0%) and condoms (63.8%) (Table 1). The durantion of use (not necessarily continuous) of the oral hormonal contraceptive (a SARC) was, in general, longer than that of the copper IUD (a LARC). Among the interviewed patients who had already used or used oral hormonal contraceptives, more than 70% reported a duration of use of 1 year to more than 10 years (Figure 1). In the group of previous or current users of copper IUDs, 62.6% had used the method for less than 6 months (Figure 2).

The entire sample knew about the existence of the hormonal oral contraceptive (pill) and condoms. Among the LARCs, the copper IUD was known to more than 90% of the patients (Table 2), whereas the SIU-LNG was slightly less popular - 78% of the patients were aware of its existence (Table 2). Subdermal implant was known to just over a third of the interviewed patients. In the SARC group, the most commonly identified methods, after the pill and con-



Figure 1 - Duration of use of the pill according to the number of patients



Figure 2 - Duration of use of the Cooper IUD according to the number of patients

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#### Table 2

	with their due	e percentages.	
		Number of patients	<i>Percentage of category total</i>
	Pill	150	100.0%
	Patch	63	42.0%
	Monthly injectable	140	93.3%
	Quarterly injectable	131	87.3%
	Vaginal ring	62	41.3%
Knowledge of the existence	Condom	150	100.0%
of contraceptives	Diaphragm	75	50.0%
	Sponge	7	4.7%
	Spermicide	23	15.3%
	Copper IUD	141	94.0%
	Mirena IUD	117	78.0%
	Implant	54	36.0%
	Yes	57	38.5%
Self-assessment: satisfactory $knowledge (n - 148)$	Parcially	45	30.4%
Knowledge (11 – 140)	No	46	31.1%
Interest in more information $(n = 93)$	Yes	72	77.4%
	No	21	22.6%
Best way to inform (n = 149)	Written	9	6.0%
	Spoken	42	28.2%
	Spoken and written	98	65.8%
Satisfactory medical conduct (n = 146)	Yes	86	58.9%
	No	60	41.1%
	Side effects	55	91.7%
Information gaps ( $n = 60$ )	How to use	31	51.7%
	Efectiveness	33	55.0%

#### Knowledge about contraceptives, self-assessment, interest in information, information gaps and medical conduct, with their due percentages.

dom, were monthly and quarterly injections (Table 2).

Approximately 60% of the patients rated themselves as poorly informed or partially informed about the contraceptive methods available (Table 2). Among them, 77.4% would like to receive more information on the subject. The best way to convey information, for 65.8% of these participants, would be to combine the written and the verbal approach (Table 2).

Among the 150 participants, 60 responded that they were not adequately informed about contraceptives (Table 2). The main information gap was in relation to the side effects of each type of contraceptive (91.7%), followed by efficacy and method of use, respectively (Table 2).

Unwanted pregnancies were events present in the lives of approximately 60% of the interviewed patients. Among them, 85.5% had up to two unplanned pregnancies (Table 3). The most frequently reported reason - for almost 50% of women - was the non-use of contraception (Table 3). Misuse of contraceptives and failure despite perfect use were the second and third most frequent reasons, respectively (Table 3).

Participants with a previous history of unwanted pregnancies knew a median of 1 contraceptive method less than those without previous unwanted pregnancies (Table 4), with a statistically significant correlation (p-value 0.03). The other variables in the tables did not show a statistically significant correlation (Tables 4, 5 and 6).

#### Discussion

Unplanned pregnancies are remarkable episodes in women's lives, with negative personal and social impacts<sup>(12-13,15)</sup>. Among the benefits of addressing this major public health problem is an increase in the workDavid LO, Botogoski SR. SARC and LARC: degree of knowledge and frequency of use in a reference hospital complex in Paraná. Arq Med Hosp Fac Cienc Med Santa Casa São Paulo. 2021; 66:e016.

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Presence, number and reasons for unplanned pregnancies, with their due percentages				
		Number of patients	Percentage of category total	
Unplanned pregnancies	Yes	88	60.3%	
(n = 146)	No	58	39.7%	
Number of unplanned pregnancies (n = 90)	1	56	62.2%	
	2	21	23.3%	
	3	11	12.2%	
	More than 3	2	2.2%	
Reason for the unplanned pregnancies (n = 86)	Incorrect use	20	23.3%	
	Non-use	41	47.7%	
	Fail	29	33.7%	
	Switch methods	8	9.3%	
	Drug interaction	4	4.7%	

Table 4					
Variables assessed for association with unwanted pregnancies .					
Variable	Unplanned	Gestação	Gestação indesejada		
vurtuote	pregnancies	Yes	No	<i>p-oaiue</i>	
Number of contracepties known		7 (6; 8.25)	8 (7; 9)	0.03	
Self-assessment: satisfactory knowledge (n = 145)	Yes	33 (37.5%)	24 (42.1%)		
	Parcially	25 (28.4%)	18 (31.6%)	0.61	
	No	30 (34.1%)	15 (26.3%)		
Type of current	Long acting	45 (65.2%)	27 (67.5%)	0.07	
contraceptive ( $n = 105$ )	Short acting	24 (34.8%)	13 (32.5%)	0.97	
Satisfactory medical conduct (n = 146)	Yes	48 (55.2%)	35 (63.6%)	0.41	
	No	39 (44.8%)	20 (36.4%)	0.41	
Information gaps (n = 59)	Side effects	36 (40.9%)	18 (31%)	1	
	How to use	20 (22.7%)	11 (19%)	1	
	Efectiveness	24 (27.3%)	9 (15.5%)	0.35	

Table 5
Number of unwanted pregnancies according to the
number of contraceptives known by patients.

Number of	Current contraceptive		
unplanned pregnancies	LARC	SARC	p-value
1	28 (59.6%)	19 (79.2%)	
2	11 (23.4%)	3 (12.5%)	0.26
3	6 (12.8%)	2 (8.3%)	0.30
More than 3	2 (4.3%)	0	

force and academic development and an improvement in health indicators<sup>(16)</sup>. Non-use and/or typical use of contraceptives are among the reasons for the occurrence of these events. In order to enhance both the use of contraceptives and their perfect use, it is essential

# Table 6

Number of unwanted pregnancies according to the type of contraceptive currently used.

Number of unplanned pregnancies	Number of contraceptives known	p-value
1	7 (6; 8.25)	
2	7 (6; 9)	0.(9
3	6 (5; 8)	0.68
Mais de 3	6 (6; 6)	

to inform and educate patients about their options and characteristics of each method<sup>(7,11)</sup>. The focus of the information process can be determined from an assessment of the target population, comprehending their age and socioeconomic profile<sup>9</sup>, degree of prior knowledge on the topic<sup>(10)</sup>, presence and causes of unwanted pregnancies<sup>4</sup> and types of most used contraceptives.

The sample of this study was composed, mainly, by young women with an average of 31.3 years of age, with a high level of education and single. The patients' advanced level of education reflected the new Brazilian reality, in which women have sought greater academic and professional training<sup>(17)</sup>. The increase in the level of female education is accompanied by a fall in fertility rates, which are especially low in regions such as southern Brazil<sup>(17)</sup>. There is also a change in the predominant age pattern in fertility: the greater the number of years of study, the later women choose to have children<sup>(17)</sup>.

Among the two categories of contraceptives, SARC and LARC were equally used by patients. However, separately, the copper IUD was the most used, chosen by 50% of the patients. In Brazil, the estimated prevalence of IUD use by women aged 15 to 49 years is significantly lower, close to 1.4%<sup>(18)</sup>. The high adherence to the IUD can show results of the current recommendations for the dissemination of the use of LARC in Brazil and other countries in Latin America<sup>(15)</sup>, due to its effectiveness and safety<sup>(19)</sup>. This favors the offer of LARC for patients who do not wish to conceive in the near future - classically between 3 to 5 years <sup>20</sup>- and who may have difficulties in maintaining an adequate routine for the use of SARC, such as adolescents<sup>(4,12,</sup> <sup>21)</sup>. The most used methods in this age group are still the pill and condoms<sup>(22)</sup>. The significant percentage of use of LARC in this study corroborates the increase in the use of these contraceptives in developed countries, especially among young patients<sup>(23)</sup>.

The accumulated use time, not necessarily continuous, of the copper IUD was, for most users, less than 6 months. Oral hormonal contraceptives, on the other hand, had been used for longer periods of time, from 1 year to more than 10 years. These results can be attributed to the fact that the 380A Copper T IUD, the most used model in Brazil<sup>(24)</sup>, is a method more recently available in the Unified Health System of Brazil, since the late 1980s<sup>(25)</sup>. In contrast, the hormonal contraceptive pill represents one of the oldest methods on the market, launched for this purpose in 1969<sup>(26)</sup>. This study suggested a perspective of change for the time of IUD use: one third of the patients had been using the copper IUD for more than 1 year, 5 years or 10 years. Possibly, future analysis would indicate a greater adherence to this method over time.

Regarding the knowledge about contraceptives, oral hormonal contraceptives and condoms were identified by all participants. The knowledge of the existence of condoms by the entire sample can demonstrate the patients' understanding that this barrier method decreases the transmission of sexually transmitted infections (STIs)<sup>(27-28)</sup> and should not be abandoned, but associated with others. Among the LARC, intrauterine devices/systems were the best known, mainly the copper IUD. However, this differs from other locations in the world. In the United States, the main reason for university female students not adhering to the use of LARC was precisely their lack of knowledge about this type of contraceptive<sup>(29)</sup>. Other reasons include lack of training for health professionals and high cost<sup>(30)</sup> (as in the case of the Mirena IUD, which is not available by the Unified Health System at CHC-UFPR).

The free availability of the methods mentioned above through the Unified Health System can influence the extent of knowledge of the women in this study. Favoring this hypothesis, results from the CHOICE study showed an increase in the use of LARC from 5% to 75% when the barriers to cost, knowledge and access were eliminated<sup>(31)</sup>. The main reasons for women to choose LARC over SARC include fear of unwanted pregnancy and adverse effects of other methods, such as nausea and unexpected bleeding<sup>(32)</sup>.

A considerable portion of the participants selfassessed poorly or partially informed about reversible contraceptives, which raises the question regarding medical responsibility for such a situation. Medical conduct was assessed as inadequate by 42% of patients. Several other sources of information, in addition to the health professional, are employed, such as the internet, friends and family<sup>(2,27,33)</sup>. However, the physician, as a reliable provider of information to patients, still assumes an extremely important role<sup>(5-6,27,34)</sup>. Previous studies indicate that patients appreciate the participation of the health professional in choosing a contraceptive method and value joint decisions<sup>(6)</sup>.

The main knowledge gap reported by the participants was related to the adverse effects of contraceptives. Previous alerts from health professionals about possible adverse effects such as unexpected bleeding with the use of a subdermal implant<sup>(37)</sup> or dysmenorrhea associated with the use of a copper IUD<sup>(38)</sup>, strengthen the relationship of trust between doctor and patient. Myths such as infertility<sup>(34)</sup> and irreversibility of contraception<sup>(29)</sup> after the use of an IUD contribute to misinformation.

Most of the interviewed patients were open to receiving more information about contraceptives. For the participants, the best way to improve their knowledge quantitatively and qualitatively consisted of verbal and written communication together. Pamphlets and posters assist in the information process, especially those with a patient-centered approach <sup>7</sup>. The use of graphics and short texts facilitates understanding<sup>(39)</sup>. Dialogues between doctor and patient also have value in clarifying doubts and alleviating concerns<sup>(27)</sup>. A review of the literature showed that associating contraceptive counseling with written information significantly improved the women's understanding of the action to be taken regarding forgetting oral hormonal contraceptives<sup>(40)</sup>. Therefore, the combination of verbal and written communication enhances the assimilation of information.

For proper counseling, it is important to train health professionals to explain about eligibility criteria and the benefits and risks of each method. This educational process increases the number of patients who choose LARC<sup>(35)</sup>. An interesting contraceptive counseling strategy is the GATHER approach, an acronym in English to greet, ask, tell, help, explain and return - describing stages of care<sup>(36)</sup>.

Approximately 60% of participants reported unplanned pregnancies. This rate is higher than the national rate: 46% of pregnancies occur without planning, 18% of which are unwanted by women<sup>41</sup>. The main reason reported for the occurrence of such events was the non-use of contraceptives. The lack of access to contraceptives, the scarcity of information and concerns about personal health are some of the reasons for not using them<sup>(10,34)</sup>.

In contrast to previous studies<sup>(14,19,43)</sup>, unwanted pregnancies were not associated with the use of SARC or LARC. The effectiveness of LARC is known to be greater than SARC<sup>(12,19,43)</sup>, considering the typical use of methods<sup>(3)</sup>. For typical use, patients using SARC are 22 times more likely to have an unwanted pregnancy than those using LARC<sup>(31)</sup>. For perfect use, the rates of unwanted pregnancies in the first year of SARC as oral hormonal contraceptives and quarterly injections are lower or similar to those of perfect use of the copper IUD<sup>(3)</sup>. Considering the high level of education of the patients in this study, a plausible explanation for the similarity in the frequency of unplanned pregnancies between users of SARC and LARC would be that the participants would have sufficient instruction to make perfect use of the methods, which could match effectiveness of both groups of contraceptives.

Self-assessment as unaware of contraceptives characteristics and assessment of medical conduct as inadequate were not associated with a higher frequency of unplanned pregnancies. However, the number of known contraceptives showed a statistically significant association (p value 0.03) with unwanted pregnancies: women who previously had them knew a median less of a contraceptive method than those who never had them. It can be interpreted that greater extent of knowledge about contraceptives allows the patient to consider more options for choosing the ideal method for her goals, thus, there would be less exposure to the risk of unplanned pregnancy.

Limitations of this study include reduced external

validity, considering its monocentric character and interview conducted by only one researcher, and sample size. The number of selected participants was limited to the number of patients seen at the Human Reproduction Clinic of the Hospital de Clínicas Complex of the Federal University of Paraná (CHC-UFPR) and the availability of patients and researchers to conduct the interviews. However, an advantage of the present study to be highlighted is the observation of the specific context of the Human Reproduction Ambulatory of CHC-UFPR, which allows providing local health professionals with information about the particularities of the group of patients monitored. From this knowledge, individualized care becomes more tangible, focused on the needs of patients.

Therefore, it is suggested that future studies carry out a multicenter approach with more extensive sampling, in order to assess possible significant associations between medical conduct and patients' self-assessment, as well as between medical conduct and the number of unwanted pregnancies.

# Conclusion

The patients at the Human Reproduction Clinic of CHC-UFPR are young, highly educated and single. The group is aware of the existence of the main types of SARC and LARC and the most widely used contraceptive is the copper IUD. The main reason for unwanted pregnancies was not using contraceptives. Unplanned pregnancies were not associated with the use of SARC or LARC. Patients' self-assessment of knowledge about contraceptives is unsatisfactory, but there is room for more education through verbal and written communication. We suggest that, based on this information, the local health professionals perform care directed to the profile of patients being monitored.

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# **APPENDIX 1 - QUESTIONNAIRE**

#### **IDENTIFICATION**

- Name: Age:
- Marital status: ( ) single ( ) married ( ) widow ( ) divorced ( ) stable union

#### **EDUCATION**

- () did not study () incomplete elementary school
  () complete elementary school
  - () incomplete high school () complete high school
  - () incomplete college () complete college

#### CURRENT CONTRACEPTIVE

- Do you currently use contraception? () YES() NO
- If YES, which one?
- Pill()
- Transdermal patch ()
- Monthly injection ()
- Quarterly injection ()
- Vaginal ring ()
- Condom ()
- Diaphragm with spermicide ()
- Contraceptive sponge ()
- Isolated spermicide ()
- Copper IÛD ( )
- Mirena IUD ()
- Subdermal implant ()

#### DURATION OF USE- CURRENT CONTRACEP-TIVE

- How long have you been using your CURRENT contraceptive (question 2)?
- LESS THAN 6 MONTHS ()
  - BETWEEN 6 MONTHS AND 1 YEAR ()
- MORE THAN 1 YEAR ()
- MORE THAN 5 YEARS ()
- MORE THAN 10 YEARS ()

#### PREVIOUS CONTRACEPTIVES

- Have you used another contraceptive before? If yes, indicate with an X.
- Pill ()
- Transdermal patch ()
- Monthly injection ()
- Quarterly injection ()
- Vaginal ring ()
- Condom ()
- Diaphragm with spermicide ()
- Contraceptive sponge ()
- Isolated spermicide ()
- Copper IÛD ( )
- Mirena IUD ()
- Subdermal implant ()

# DURATION OF USE- PREVIOUS CONTRACEP-TIVE

- How long did you use your previous contraceptive?
- LESS THAN 6 MONTHS ()
- BETWEEN 6 MONTHS AND 1 YEAR ()
- MORE THAN 1 YEAR ( )
- MORE THAN 5 YEARS ()
- MORE THAN 10 YEARS ()

# KNOWLEDGE OF EXISTENCE: mark an X in the

contraceptives you know.

- Pill()
- Transdermal patch ()
- Monthly injection ()
- Quarterly injection ()
- Vaginal ring ()
- Condom ()
- Diaphragm with spermicide ()
- Contraceptive sponge ()
- Isolated spermicide ()
- Copper IUD ()
- Mirena IUD ()
- Subdermal implant ()

#### SELF-ASSESSMENT OF KNOWLEDGE

- Do you feel well informed about contraceptives?
  YES() NO()
- If you checked NO above, would you like to receive more information on this subject? YES() NO()

# SOURCE OF KNOWLEDGE

- For you, what is the best way to receive information about contraceptives?
- Writing (such as pamphlets) ()

- Verbal (speech only) ()
- Verbal and written (pamphlets and speech) ()

#### EVALUATION OF MEDICAL CONDUCT

- Do you feel that your doctor informed you properly when choosing your contraceptive method? YES() NO()
- If NO, what do you think was left to be addressed?
- SIDE EFFECTS ( )
- HOW TO USE ()
- EFFICIENCY()

#### UNWANTED PREGNANCY

- Have you ever had any unwanted pregnancies? YES() NO()
- If YES, how many?
- 1()
- 2()
- 3()
- More than 3 ()
- What was the reason for your unwanted pregnancy?
- WAS NOT USING CONTRACEPTIVES ()
- INCORRECT USE OF CONTRACEPTIVE ()
- SEXUAL ABUSE ()
- CONTRACEPTIVE FAILURE (despite correct use) ( )
- If you checked DO NOT USE CONTRACEPTIVES, please indicate the reason
- DIDN'T KNOW ABOUT THE EXISTENCE ()
- KNEW ABOUT THE EXISTENCE BUT DID NOT WANT TO USE ( )
- KNEW ABOUT THE EXISTENCE BUT DIDN'T KNOW HOW TO USE ( )