Contraceptive discontinuation and non-use in Santarém, Brazilian Amazon

Interrupção do uso e não-uso de métodos contraceptivos em Santarém, Amazônia brasileira

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Abstract

In this paper we discuss the causes of non-adherence to reversible contraceptives, especially hormonal methods, among women in rural Santarém in the Brazilian Amazon. The analysis is based on questionnaires with 398 women and visits to health centers. We consider the motives reported by women who: never used contraception; used some method in the past; and who at the time of the survey were using a different method from the ones they used in the past. The results indicate a rejection of hormonal contraception and a preference for female sterilization, an option possibly influenced by the characteristics of health services in the region. The side effects of hormonal contraceptive use reported by part of the interviewees contribute to a generalized fear of the side effects even among women who have never used such methods. To improve women's health services in the Amazon, we recommend further studies of the relationship between reported side effects and available services and prescriptions, as well as an analysis of women's discourse and perceptions.

Contraception; Hormonal Oral Contraceptives; Reproductive Sterilization; Women's Health

This paper aims to add to the debate about adherence and discontinuation to contraception while discussing the inconsistent use and non-use of reversible contraceptive methods among women residing in a rural area of the Brazilian Amazon. In a country the size of Brazil, case studies such as the one presented here are important for revealing the contexts of particular regions that vary considerably from the metropolitan centers.

Previous analyses of the data collected in the study area revealed a high number of sterilized women, but did not assess the relationship between the use of other methods, local health services, and women's perceptions [1]. We aim to enhance the understanding of the local context by investigating the women's perspective regarding contraceptive methods, especially concerning the non-use of reversible methods. By investigating women who are able to use contraception but do not use it, those who have used contraception in the past, and those who decide not to use contraceptive methods even when they wish to avoid pregnancy, we are broadening the definition of "contraceptive users" [2]. Furthermore, we consider the users definition of use and discontinuation, which does not necessarily correspond to technical definitions of these terms. The study reveals that women define "discontinuation" as having used a contraceptive method at least once in the past, whether or not the method was properly used or provided adequate coverage. The perspective of non-users is particularly relevant

to the study of hormonal methods [3], facilitating the understanding of their rejection.

Considering that contraceptive use should be treated in the wider scope of health and women's rights [4], we extended the sample of women beyond those who are married or sexually active in reproductive age to include those who are unmarried and those who have already passed their reproductive period. Such a procedure is essential to capture behavior of distinct generations; the extent of the problems that lead to the nonadherence to reversible contraceptive methods; the option for sterilization; and the dissemination of ideas that can contribute to the rejection of methods even among women who never used them.

Understanding the complex decision-making process that affects the acceptance of contraceptive methods can contribute to more effective family planning services for local realities. An adequate and accessible service leads to the adoption and use of appropriate methods, helping to improve women's quality of life, reducing induced abortion and maternal mortality, as well unwanted fertility [5].

Contraceptive choice

Access and service quality are important factors for contraceptive acceptance and continuation [6]. Service quality also affects contraceptive prevalence [7] and, ultimately, fertility [8,9]. The distinction between access and quality in evaluating the planning supply environment is analytically useful in identifying problems that demand different program management responses. The concept of access is linked to "getting clients to the clinic"; quality is linked to "keeping them wanting to come back" [6,10]. Access to services includes physical access, such as distance to health posts, travel time, and the quantity and density of existing facilities [11,12]. It also includes other dimensions of accessibility, such as economic, administrative, cognitive [13] and psycho-social [6].

Several authors have pointed to a lack of consideration for the client's perspective [10,14,15]. The client is the one who ultimately makes the choice about contraceptive use; therefore, identifying the factors clients perceive as problems or deficiencies in service is an essential component for measuring service quality. Studies focused on the client's perspective can help researchers understand the motives that lead clients to choose one method over another, contributing to studies on acceptability – "*a complex interplay between a woman, a technology and a service delivery environment*" [16] (p. 7). Acceptability varies according to personal choices, local factors, and to women's perceptions concerning safety, effectiveness and convenience [17].

The range of methods available plays a particularly important role in women's acceptance of contraception and their continuation of use. The ability to choose from among a variety of contraceptive methods is essential for increasing the prevalence of use, and should be a part of family planning programs [18]. A diversity of contraceptive methods increases the chance that users will find the method that best fits their needs [8,19]. Data for developing countries show that contraceptive prevalence is greater in countries where women have access to a greater variety of methods [18]. While contraceptive prevalence in the world was estimated to be at 63.1% in 2003 [20], it was particularly high in some Latin American countries such as Brazil (80.6% in 2006) [21].

The method mix can reflect provider bias, supply problems, client preferences, beliefs, and convictions, all of which help us understand what is lacking in the service [6]. In Brazil, where modern methods are prevalent (77.1%), female sterilization is the most popular contraceptive method [21], although it was not accepted before 1997 according to the public health system. In order to get around this restriction in the public health sector, surgeries were performed during cesarean sections [22] or were recorded as other medical procedures [23]. *Decree nº. 144/97* legalized female sterilization in the context of *Law nº. 9,263* of January 12, 1996, requiring certain preconditions to be met. Despite the advance in legalizing sterilization, the practice still does not satisfy the reproductive rights of men and women in Brazil, perpetuating some old distortions [24].

While method mix gives a picture of the distribution of contraceptive methods, contraceptive continuation rates provide a useful measure of the overall effectiveness of program services in terms of enabling clients to sustain their contraceptive use [6]. A comparison of the discontinuation rates across countries and programs highlights country-specific patterns that are anomalous and may merit programmatic attention [9]. Data for Brazil reveal a total discontinuation rate (for all reasons) of 44.8% for the pill, and 63.7% for contraceptive injections. The discontinuation rate due to concerns about the side effects of these methods is 11.8% for the pill and 27.4% for contraceptive injections within the first 12 months [25].

In the case of hormonal contraception, the experience of side effects as well as the fear of them appear to be important causes for non-adherence and the discontinuation of the contraception [26,27]. In less developed countries, contra-

ceptive discontinuation due to health concerns are generally higher [28]; these complaints are often related to service quality and the high doses of hormones in the medications offered.

In a report resulting from investigations on the quality assurance of pills distributed around the world, the World Health Organization (WHO) states that "*…the number of sub-standard products found through random testing has underlined the need for a more rigorous approach to the quality assurance of these products*" [29] (p. 5). The WHO questions the integrity of oral contraceptives manufactured by Brazilian companies due to lower standards of quality control and the possibility of high doses of steroids [30], that can cause physical symptoms such as amenorrhea, irregular bleeding, spotting, or heavy and prolonged bleeding, as well as headaches, dizziness, weight changes, heart palpitations, weakness and decreased libido [31]. These should be understood in relation to the social consequences of the side effects, as indicated by studies that address the representations of the impacts of hormonal contraceptive methods, such as those reported among young Malians [32], in rural Bangladesh [33], and in provincial Iran [34]. Studies such as these call attention to the sociocultural concerns about contraception, and how important it is to consider contraceptive choice and use in the context of women's sexuality, health, and culture.

The study area

Covering more than 180,000 hectares, the study area is located in Pará State, between the municipalities of Belterra and Santarém. The area is predominately in the rural upland zone, and made up of small family properties, cattle ranches, areas of mechanized agricultural production, and an assemblage of rural villages that dictate a certain infrastructure, such as primary grade schools, health posts, a water distribution system and electricity [35]. There are four principal roads that link the rural area with the city of Santarém, one of which is the federal highway BR-163, which stretches from Cuiabá to Santarém. Most roads are not paved, but they are usable all year round. The public transportation system is precarious, but it is possible to travel back and forth from the municipal capital in one day.

The data collection was conducted between July and October of 2003 using surveys to capture information about family properties, households and individuals – including, for women, closed questions about contraception and reproductive history. The surveys were pre-tested in the study area among households outside of the study sample. We used a random stratified sampling strategy based on the four main roads that correspond to distinct times of occupation of the study area. In each of the four regions, rural lots were selected randomly through a Geographic Information System (GIS) [36]. In each property sampled we interviewed all of the existing households, which entailed questionnaires applied to couples that were heads of households; we also administered questionnaires about reproductive history and contraceptive use to other women 15 years or older who were members of the household. The sampling procedure ensures that the landscape and socio-demographic characteristics of the sample can be generalized to the study area as a whole.

To better understand the interviewees' choices and their knowledge about women's public health service, the interviewers were instructed to note all of the informants' statements – in addition to their responses to the questionnaires – that related to their impressions and experiences about contraceptive use. In addition, we conducted visits to health posts in rural communities and visits to municipal locations that provide public services in women's health (in 2003 and 2004), in search of information on the availability of women's health services.

In the 244 properties considered, we identified 401 households where 1,849 people resided in 2003. Of these, 525 were women older than 15, of which 69 (13%) declared they never had sexual relations (generally adolescents who did not respond to the questions about contraception) and 58 women (11%) did not give information about contraception (across all ages), leaving 398 women who were included in the present analyses.

Of these 398 women, 217 (54%) were between the ages of 15-49 years and married; another 51 (13%) were between 15-49 and not married (two separated, three widows, and 46 single); 103 women (26%) were 50 years old or older and married, while 27 women (7%) were older than 50 and not married (four separated, 20 widows, and three single). The total fertility rate (TFR) was 3.9 in 2003 – the TFR in Brazil was around 1.8 in 2006 [21]. A total of 358 women have given birth to at least one live child.

Use of methods in Santarém

Most women in the study area make use of the public health system, structured around the Unified National Health System (SUS), created by the *Federal Constitution* of 1988. The services, as advocated by SUS [37], are organized by the municipal headquarters in the Santarém municipal seat,

which supervise and maintain satellite health posts, some located in rural villages.

The rural health units are unequipped, small houses. While there is generally a permanent attendant, the doctor responsible is there only one day a week, every other week, or once a month. Medicine and contraceptive methods are not available at the rural health posts. Women see the doctor by appointment only, but, according to the interviewees, it is difficult to be seen because the physician's hours are not sufficient to attend to everyone. Women cannot go directly to the service units in the city because the services depend on the triage of the rural community posts.

To obtain reproductive health services, women need to go to the Women's Reference Center in the city of Santarém, after triage at the rural health posts. An opening for a consultation at the Women's Reference Center can take at least two months to schedule. In 2004, the Women's Reference Center distributed condoms (12 per month/person), contraceptive pills and inserted interuterine devices (IUDs). The women who wanted to be sterilized through the public health service have to pass through the triage in this center.

The most commonly used brands of contraceptive pills in Santarém are: Neovlar and Microvlar (Sherin, Germany); Evanor and Nordette (Wyeth, USA); Ciclo 21 (União Química, Brazil), and Nociclin (EMS, Brazil). All of these are monophasic pills, meaning they offer a constant dose of hormones throughout the three-week cycle, as opposed to biphasic or triphasic pills, which start with a lower dosage and progressively step up the hormone level. Neovlar and Evanor contain 0.05mg of ethinyl estradiol and 0.25mg of levonorgestrel, while Microvlar, Nordette, Ciclo 21, and Nociclin all contain 0.03mg ethinyl estradiol and 0.15mg of levonorgestrel.

Prevalence and method mix

The contraceptive prevalence rate among married women of reproductive age is 73%; when we include single women of reproductive age, the rate falls to 66%. Table 1 outlines the method mix for women divided into age and civil status groups. The women are divided into two age groups (those between the ages of 15 and 49, and those who were aged 50 or older) and classified according to civil status: married (married or common-law married) and unmarried (never married, separated, or widowed).

Among married women of reproductive age, the irreversible method is most common. Hormonal methods, especially the pill, is the second most commonly used method, followed by the condom, traditional methods and lactation, considered as a method by the interviewees. A total of 60 women do not use any method, including the five women who declared themselves to be post-menopausal despite being under the age of 50, and the ten women who were pregnant. Among non-married women of reproductive age, reversible methods predominate: female sterilization and hormonal methods are less frequently used than among married women, while condom use is more common within this group. Traditional methods occur at rates very similar to those of married women. Women 50 years old or older do not use reversible contraception. In this age group, female sterilization is highest among married women, compared to unmarried women. Overall, female sterilization is a strong characteristic of the study group.

The start of sexual activity for the majority of the women is not accompanied by contraceptive use. The data indicates that a large number of women, both single and in relationships, do not use contraceptives before the birth of their first child. Only 12% of the 358 women that had at least one child used some kind of contraception before giving birth to their first child. Considering the women of reproductive age, only 16% of married women and 26% of single women used some method before the birth of their first child. Among women 50 years old or older, contraceptive use before the birth of their first child was even less frequent (2%). The results suggest that when concern about avoiding pregnancy arises, it occurs mainly among women who have already had their first child.

Use of reversible and irreversible methods

The non-use of reversible methods is another distinguishing characteristic of the women we interviewed: 222 of the 398 women (56%) had never used a reversible method. This non-use was evident in 39% of married women of reproductive age, and 83% among women 50 years old or older. Almost 58% of sterilized women (84 out of 145) had never used any kind of reversible method (in other words, sterilization was the first and only method used).

Table 2 shows that among married women of reproductive age, 51% of those sterilized had never used a reversible method. Among non-sterilized married women of reproductive age, half of them currently use some reversible method. Among unmarried women of reproductive age, only a small number are sterilized. Of the unsterilized women, predominantly young and unmarried, 50% never used a contraceptive method. Among all women aged 50 or older, the majority of them declared that they had never

Tabela 1

Method mix in the study area (Santarém, Pará State, Brazil).

Method	Women (15-49 years)		Women (50 or +)	
	Married	Unmarried	Married	Unmarried
	n (%)	n (%)	n (%)	n (%)
Any method	157 (73.0)	21 (42.0)	42 (41.0)	2 (7.0)
Modern methods	149 (69.0)	19 (38.0)	42 (41.0)	2 (7.0)
Female sterilization	98 (45.0)	3 (6.0)	42 (41.0)	2 (7.0)
Hormones	37 (17.0)	7 (14.0)	0 (0.0)	0 (0.0)
Condom	14 (7.0)	9 (18.0)	0 (0.0)	0 (0.0)
Traditional methods	8 (4.0)	2 (4.0)	0 (0.0)	0 (0.0)
Do not use any method	60 (27.0)	30 (58.0)	61 (59.0)	25 (93.0)
Total	217 (100.0)	51 (100.0)	103 (100.0)	27 (100.0)

Table 2

Use of reversible contraceptive methods in the present and in the past.

Age (years)	Marital status/ Irreversible method	Use of reversible methods (women/%)			
		Never used *	Used in the past **	Currently use ***	Total
		n (%)	n (%)	n (%)	n (%)
15-49	Married				
	Sterilized	50 (51.0)	48 (49.0)	0 (0.0)	98 (100.0)
	Not sterilized	34 (29.0)	26 (22.0)	59 (50.0)	119 (100.0)
	Unmarried				
	Sterilized	2 (67.0)	1 (33.0)	0 (0.0)	3 (100.0)
	Not sterilized	24 (50.0)	6 (13.0)	18 (38.0)	48 (100.0)
50 or above	Married				
	Sterilized	30 (71.0)	12 (29.0)	0 (0.0)	42 (100.0)
	Not sterilized	56 (92.0)	5 (8.0)	0 (0.0)	61 (100.0)
	Not married				
	Sterilized	2 (100.0)	0 (0.0)	0 (0.0)	2 (100.0)
	Not sterilized	24 (96.0)	1 (4.0)	0 (0.0)	25 (100.0)
Total		222 (56.0)	99 (25.0)	77 (19.0)	398 (100.0)

* Those who do not presently use a method and never used one in the past;

** Do not presently use a method but used one in the past;

*** Includes those who presently use a method and either did or did not use another method in the past.

used a reversible method. This response points to a lower prevalence of reversible methods in the past: of the 130 women, 50 had used some reversible method and/or were sterilized.

The data from the two previous tables point to the "preference" for sterilization and the "rejection", or low acceptability, of reversible methods. A better understanding of this is possible if we start from a comparison between current methods and methods used in the past. In Table 3, each row presents the contraceptive method utilized by the women, while the columns present reversible methods used in the past. This table shows that hormonal methods are currently the most

common reversible methods (43 women). Of the 43 women that currently use a hormonal method, 26 (60%) had never used any other method previously, while the rest are mainly distributed among those that used either a hormonal method and/or a barrier method. Hormonal methods are the most commonly discontinued method.

Table 3 also shows that condoms are the second most common reversible method currently used (23 women) and the second most commonly discontinued method (15 women). The results indicate a movement between hormonal and barrier methods, which confirms impressions based on reports from some of the informants. Finally, of the 73 women who do not currently use contraception despite being of reproductive age, 46 (63%) never used any method and 22 (30%) used hormonal and/or other methods.

We were unable to calculate contraceptive continuation rates, which would have permitted a more detailed analysis of discontinuation. However, the women revealed during the interviews and conversations that contraceptive use, especially the pill, was very inconsistent, rarely going beyond three months of continued use. Many of the women also said that when they switch from one kind of contraception to another, there were long periods of unprotected gaps in which they did not use any kind of contraception.

The preference for sterilization – involving both early discontinuation as well as non-use of reversible methods – very often appeared together with stories of a common reproductive pattern: rather than use a reversible contraceptive method, they have the desired number of children as soon as possible and then undergo sterilization.

Reported reasons

Table 4 shows the self-reported motives for discontinuing reversible methods or switching from one method to another.

"Health problems" was a common justification for discontinuing hormonal methods. Many women claimed that they stopped using the pill because of side effects such as: colic, nausea, vomiting, headaches, dizziness, stomach aches, cramps, swelling of the stomach, and bleeding in between cycles, as women were accustomed to relate: "*I would menstruate all month*". Some women claimed that the pill made them lose weight, while others complained they gained. The effects, intensely experienced by the interviewees, quickly led to the discontinuation of the method within the first few months of use. According to them, side effects are related to the quality of service: there is no medical evaluation that would allow women to switch from the contraceptive initially prescribed. In facing the difficulties of adapting to the use (and to the side effects), they prefer to stop using hormonal methods altogether – and generally do not immediately substitute for another type of method.

Lack of accessibility is an additional problem in the case of hormonal injection, but this does not appear to affect the continuity of pill use, nor the non-hormonal methods. A small percentage of the women said that the price of the contraception was the reason for discontinuing the method. Discontinuation that co-occurs with method failure (and subsequent pregnancy) appears more frequently with the rhythm method (50%), followed by the pill (10%) and the condom (8%). Changes in method appear as a more rel-

Table 3

Current method versus previous method.

Current method	Women	Previous method				
		Barrier	Hormonal	Traditional	Hormonal and another	No
Barrier	23	1	10	0	0	12
Hormonal	43	6	6	1	4	26
Other: modern	2	0	1	0	0	1
Other: traditional	9	2	2	0	0	5
Sterilized	145	1	47	7	6	84
No	176	5	27	4	2	138
Total	398	15	93	12	12	266

Table 4

Stated motives for stopping the use of a contraceptive method.

Motive for abandoning method	Method discontinued			
	Pill	Injection	Condom	Rhythm
	n (%)	n (%)	n (%)	n (%)
Had surgery	5 (5.0)	0 (0.0)	1 (4.0)	1 (13.0)
Changed method	2 (2.0)	0 (0.0)	4 (17.0)	1 (13.0)
Method did not work	9 (10.0)	0 (0.0)	2 (8.0)	4 (50.0)
Health problems	55 (60.0)	14 (58.0)	1 (4.0)	0 (0.0)
Expensive methods	1 (1.0)	1 (4.0)	1 (4.0)	0 (0.0)
Lack of accessibility	1 (1.0)	4 (17.0)	2 (8.0)	0 (0.0)
Spouse opposed to it	1 (1.0)	0 (0.0)	3 (13.0)	0 (0.0)
Wanted more children	6 (7.0)	1 (4.0)	2 (8.0)	1 (13.0)
Other	8 (8.0)	4 (17.0)	7 (29.0)	0 (0.0)
No partner	3 (3.0)	0 (0.0)	1 (4.0)	0 (0.0)
Missing Info	1 (1.0)	0 (0.0)	0 (0.0)	1 (13.0)
Total	92 (100.0)	24 (100.0)	24 (100.0)	8 (100.0)

evant motive for discontinuing condoms and rhythm method. Objection by the husband and other motives are more important factors in the case of condoms.

Considering the 222 women that declared never to have used a reversible contraceptive method, the following reasons were provided for the non-use of reversible methods (Table 5). There was a marked difference in responses directly related to access to methods ("*expensive methods*", "*lack of accessibility*", "*didn't know about methods*") between women of reproductive age and women beyond reproductive age, indicating that conditions of access are better now than they have been in the past. Difficulties in access affect 11% of the women between the ages of 15 and 49. The biggest difference is the ignorance about methods, which is the most common reason given by older women (39%). Difficulty of method use is the reason most associated with access to information about the method and represents the main difference between the two age groups. Such reasons appear to be associated with second-hand information these women have heard about the method, since the women making these statements are among those who have never used contraception.

The husband's influence and religion also had a greater influence on older women's choice. These were the sole motives reported by two women of reproductive age and twelve women 50 years old or older. However, these two factors coupled with the motives linked to contraceptive access mentioned earlier were evident in the responses of 52% of the women who were 50 years old or older, in contrast to only 17% among women of reproductive age.

While the motives mentioned above mainly reflect those of older women, other motives were more likely to be reported by women of reproductive age. Health problems, or physical characteristics that impede the safe use of contraception (for example, high blood pressure), were cited by 6% of the women of reproductive age and 3% of older women. In these situations, the non-use of the method generally occurs due to guidance received from the health center, and is not due to the side effects they experienced. Only two of the women (2%) reported they do not use reversible methods due to sterilization; 11 (5%) said they do not need to use it (infertility for one of the members of the couple, sporadic or lack of sexual relations, for example); 30 (14%) said they never used contraception because they wanted to have more children; and 7 (3%) gave other motives. A total of 17 women (8%) did not give any reason for not using a contraceptive method.

We call attention to the spontaneous but apparently vague reasons for never having used contraception, especially among women of reproductive age. A large proportion of women between 15 and 49 years of age (38%) and of

Table 5

Stated motives for never using a reversible method.

Motive	Women		
	Total	15-49 years	50 or more years
	n (%)	n (%)	n (%)
Expensive methods	3 (1.0)	1 (1.0)	2 (2.0)
Lack of accessibility	10 (5.0)	3 (3.0)	7 (6.0)
Did not know about them	52 (23.0)	8 (7.0)	44 (39.0)
Difficult to use	3 (1.0)	3 (3.0)	0 (0.0)
Spouse opposed	4 (2.0)	1 (1.0)	3 (3.0)
Religious reasons	10 (5.0)	1 (1.0)	9 (8.0)
Health problems	10 (5.0)	7 (6.0)	3 (3.0)
Scared (did not trust) the method	29 (13.0)	19 (17.0)	10 (9.0)
Did not like the method	4 (2.0)	4 (4.0)	0 (0.0)
Did not want to use	30 (14.0)	19 (17.0)	11 (10.0)
Had surgery	2 (1.0)	2 (2.0)	0 (0.0)
Did not need a method	11 (5.0)	5 (5.0)	6 (5.0)
Wanted more children	30 (14.0)	16 (15.0)	14 (13.0)
Other	7 (3.0)	6 (5.0)	1 (1.0)
Missing information	17 (8.0)	15 (14.0)	2 (2.0)
Total	222 (100.0)	110 (100.0)	112 (100.0)

women older than 50 (19%) alleged that they never used contraception due to some kind of "fear" or "skepticism", because they "*don't like*" the methods or because they "*don't want to use it*". These responses were often accompanied by comments or justifications expressing concerns about the safety of the hormonal methods or the effects they could have on the woman's health. They also illustrate uncertainty and a lack of knowledge about how the methods function, their efficacy, and the effects of medications on the body. In their comments, some women expressed fear about the effects of hormonal methods on the uterus, which reflects a preoccupation with the maintenance of fertility.

"*I never wanted to use it because I had a suspicion, I wondered where the pill was going… I think that it went to the uterus and would make me sick*".

"*I never used contraception because I was afraid of getting an illness in the uterus*".

"*I was afraid that the pill would create roots inside the body, like a tree*".

"*I didn't trust the pill, it would compromise my health*".

"*The medicine is harmful to women*".

Discussion

In relation to married women of reproductive age, in the rural area of Santarém we found a lower prevalence of contraceptive use than compared with national data. We also found a higher rate of sterilization, and less use of hormonal methods among the study group. The analysis of the method mix in Santarém, broken down by age and civil status of the women interviewed, reveals that the high rate of female sterilization occurs among married women within both age groups studied. The proportion of sterilization is higher for those who are still within reproductive age, indicating a rise in the practice of sterilization. A considerable number of women were sterilized without ever having used a reversible method.

The use of contraception among non-married women of reproductive age indicates the importance of targeting this group in the planning and analysis of women's health. For these women, the use of reversible methods seems to be most preferred in order to preserve their capacity to have children in the future, which ought to lead to specific health policies, distinct from those applied to married women – who prefer

the irreversible method. Condoms, and its importance in the prevention of sexually transmitted illnesses, should be taken into account as an element of public policies. Any married woman beyond reproductive age declared condom use. Among married women of reproductive age, sterilization renders condom use unnecessary in the eyes of women and their partners.

The specifics of contraceptive use in the study area seem to be influenced by a series of factors such as: deficiencies in health service; difficulties in traveling to the city in order to use the health services aimed specifically to women; difficulty in using the hormonal method; and unreliable supplies of methods. However, by comparing women's stated motives for discontinuing use of contraception and their reasons for not using a contraceptive method at all, the data points to health-related issues, in the case of those who used those methods in the past, and to fears (often vague) of health problems as justification for not using these methods. Side effects (or the fear of them) constitute the primary reasons for non-use and for interrupted use of the hormonal methods.

Access and service quality were not frequently cited motives given by the interviewees. For women beyond reproductive age, difficulty in access was the most important reason given for non-use or discontinuation in the past. For women of reproductive age, greater availability of information and of methods and services reduced the problems related to difficulty of access. On the other hand, better access gave rise to a collection of motives, or fears, explaining the non-adherence to reversible methods. Comparing the two groups of women, one sees that there was a shift from an emphasis on access to an emphasis on quality of care as the reason for non-adherence.

The discontinuation of hormonal methods, due to the experience of undesirable side effects, may be understandable considering the kind of medication most accessible for the public. It remains unclear whether the side effects these women experience are caused by contraceptive pills of questionable quality or are the result of an international standard of "acceptable" hormonal doses that is simply too high for the women who live in this region. The lack of access to consultation services exacerbates the issue of side effects, both for those women who actually experience them and for those who have a fear of them. The dissemination of these beliefs – the representations or even the imagination of harm that the medication could cause to a woman's body, to her health and, more specifically, to her reproductive capacity – suggests that, at least in part, these fears of side effects result from misinformation regarding contraceptive methods. The social implications of the side effects cannot be ignored when considering the factors that women take into account. How can a "sick" woman, who "menstruates" all month, be able to work on the farm? What are the difficulties for a single woman, living with her parents or relatives, in taking oral contraceptives without them finding out? How does she deal with external evidence of such use (swelling, for example)?

This case study indicates that the range of methods offered should not be taken as a sign of service efficacy. The fact that women used condoms, injection, pills, and other modern methods does not mean that these methods were of high quality. Nor does it mean that they have continuous and adequate use of them. The interviewees informed us that, when confronted with problems in adapting to the contraceptive in the first two or three months, they frequently stopped using the method, and then had unprotected gaps between the use of one contraceptive method and another. Despite not having obtained quantitative data on discontinuation, our findings suggest that the inconsistent use of contraception most likely represents a sign of weakness in the health service system rather than the possibility that the user (or potential user) is conducting a conscientious and consistent search for a satisfactory contraceptive method.

Conversations with the women, as well as visits to health posts and health services, suggest that perceptions about side effects and concerns about health shape contraceptive decision-making more than problems of effectiveness and convenience. Concerns about safety and side effects are much more salient to women than access difficulty and low quality of available services that in fact characterize the region. Women do not acknowledge that part of the problems they face could be tackled with the improvement of service quality, for example: changing contraception under a physician's supervision to adjust problems during the first few months of use, or the availability of more "modern" medicine in the public network. Women end up attributing a series of limitations or problems to the hormonal method, even if they themselves have not experienced them.

Conclusion

We have detected in the study area a preference for sterilization over the use of reversible methods, particularly hormonal contraception. According to the interviewees, the low accept-

ability of hormonal methods is related to their side effects, or to the fear of side effects. Women's contraceptive use decisions are affected by the health system that encourages sterilizations. Many women have revealed a contraceptive-reproductive approach that leads them to the non-use of any method until they have had the desired number of children, and then become sterilized, often at the time of the birth of their last child.

This article underlines the importance of the inclusion of the client's perspective in studies of contraceptive acceptance and continuation. Contraceptive methods and the fears of side effects are subjected to a series of physiological, social and cultural – even psychological – representations. Paying attention to those who do not use the service brings better understanding about contraceptive choices, as well as broadens the scope of discussion on women's health and sexuality.

The analysis calls attention to the need for case studies in locations other than metropolitan centers in countries such as Brazil. Aggregated data for the country – which is normally used in analysis – obscures considerable internal variations, owing to socio-economic and cultural regional differences as well as rural-urban differences. The findings presented here call for the use of more qualitative methodologies (e.g., ethnography and discourse analysis) to study strategies of contraceptive use in the Amazon. These approaches will yield information to help create successful reproductive health programs that will better fit to the realities of Amazonian populations.

Resumo

Discutimos sobre as causas da não-adesão aos contraceptivos reversíveis, especialmente os métodos hormonais, entre moradoras rurais de Santarém, na Amazônia brasileira. A análise baseia-se em questionários aplicados a 398 mulheres e em visitas a centros de saúde. Consideramos os motivos relatados por mulheres que: nunca usaram contraceptivos; que usaram métodos no passado; que, no momento do levantamento, usavam método diferente dos utilizados no passado. Os resultados indicam rejeição aos contraceptivos hormonais e preferência pela esterilização feminina, opção possivelmente influenciada pelas características dos serviços de saúde na região. Efeitos colaterais do uso de contraceptivos hormonais relatados por parte das entrevistadas contribuem para o medo generalizado de efeitos colaterais, mesmo entre mulheres que nunca usaram métodos hormonais. Para aprimorar o serviço de saúde da mulher na Amazônia, recomendamos futuros estudos sobre o relacionamento entre os efeitos colaterais relatados, os serviços e medicamentos disponíveis, assim como uma análise dos discursos e das percepções das mulheres.

Anticoncepção; Anticoncepcionais Orais Hormonais; Esterilização Reprodutiva; Saúde da Mulher

Contributors

A. O. D'Antona coordinated the survey, participated in the design and planning of the manuscript, conducted the bibliographic research, conducted the data analysis and wrote the manuscript. J. A. Chelekis conducted the bibliographic research, conducted the data analysis and wrote the manuscript. M. F. L. T. D'Antona contributed to data collection and analyses and helped with the analysis of results and revisions. A. D. Siqueira helped with the analysis of results and revisions, and read and approved the final version of the article. All authors read and approved the final version of the article.

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