

Contraceptive counseling lectures do not influence decision making in family planning services

Palestras de aconselhamento contraceptivo não influenciam a tomada de decisões em serviços de planejamento familiar

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Abstract Family planning services should provide women and men with information on contraceptive methods. This study aimed to evaluate the impact of multidisciplinary contraceptive counseling lectures related to the efficacy and individual choices of contraceptive methods. Sociodemographic variables, preferred methods and opinion about the efficacy of contraceptive methods of 101 participants were analyzed. After the lecture, a lower percentage of men declared that they did not know which contraceptive method was more efficacious (24.3% versus 0.0%; $p=0.006$). Also, a lower percentage of women (12.7% versus 1.8%; $p=0.020$) and men (25.5% versus 7.7%; $p=0.003$) reported that they did not know which contraceptive method was less efficacious. Number of children increased the likelihood of choosing an irreversible method in a 30.87-fold (95%CI, 5.503 to 173.168, $p<0.001$). The choice of irreversible methods did not change after the counseling lecture ($p>0.05$). The lecture impacted on participants' opinions about the efficacy of contraceptive methods, making them have more informed choices. However, it did not influence their choice of contraception. Number of children was the most determining factor in choosing irreversible methods.

Key words Family planning, Contraception, Counseling, Health education

Resumo Serviços de planejamento familiar devem oferecer informações sobre métodos contraceptivos a homens e mulheres. Este estudo avaliou o impacto de palestras multiprofissionais de aconselhamento relacionadas às escolhas individuais e à eficácia dos métodos contraceptivos. Foram analisadas variáveis sociodemográficas, métodos preferenciais e a opinião sobre a eficácia dos métodos contraceptivos de 101 participantes. Após a palestra, um percentual menor de homens declarou não saber qual o método contraceptivo mais eficaz (24,3% versus 0,0%; $p=0,006$). Além disso, um percentual menor de mulheres (12,7% versus 1,8%; $p=0,020$) e homens (25,5% versus 7,7%; $p=0,003$) relataram que não sabiam qual método contraceptivo era menos eficaz. O número de filhos dos participantes aumentou as chances de optar por um método irreversível em 30,87 vezes (IC95%; 5,503 a 173,168, $p<0,001$). A escolha por métodos irreversíveis não se alterou após a palestra de aconselhamento ($p>0,05$). A palestra impactou nas opiniões dos participantes sobre a eficácia dos métodos contraceptivos, fazendo com que eles tivessem escolhas mais informadas. No entanto, não influenciou a escolha do método de contracepção. O número de filhos foi mais determinante na escolha de métodos irreversíveis.

Palavras-chave Planejamento familiar, Contracepção, Aconselhamento, Educação em saúde

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Introduction

Contraceptive counseling is one of the main factors responsible for the decrease in rates of induced abortions and unplanned pregnancies around the world^{1,2}. Thus, reproductive health professionals should develop educational competencies towards an efficacious contraceptive counseling.

It is common knowledge that information provided in contraceptive counseling programs should consider individual values and preferences³, since individual choices are influenced by social, economic, and cultural aspects⁴. In Brazil, the number of children seems to exert considerable influence on these programs attendance. Usually, individuals seek counseling after having a first child⁵ and, after a second one, there seems to exist the volition for an irreversible method.

Although family planning programs are recognized as fundamental in individuals' decision making process, strategies that should be used to ensure efficacious contraceptive counseling are still controversial^{2,6}. Most of studies assessing counseling strategies use different approaches, making comparisons difficult. Individual-based approaches^{7,8} seem to increase knowledge and understanding of contraceptive options. They foster conscious choices, reduce the risk of failure by misuse or discontinuation of the method, and prevent regret due to uninformed choices^{4,9}. Group-based approaches, which are common in developing countries^{10,11}, perhaps because of the potential of higher population coverage in low-resource scenarios, may also increase the knowledge of individuals about the efficacy of contraceptive methods. Regardless of the approach, counseling strategies seem to promote greater knowledge, autonomy, and conscious choices of contraceptive methods^{12,13}.

Studies show the importance of counseling in choosing contraceptive methods^{14,15}. In general, family planning services include the use of educational materials and/or audiovisual resources in the form of workshops or lectures^{6,10,11}. Our hypothesis is that lectures influence the contraceptive choice of men and women searching for our family planning service. Therefore, this study aimed to evaluate the impact of multidisciplinary counseling lectures held at our institution on participants' opinion about the efficacy and on choice of contraceptive methods. We also evaluated which sociodemographic variables predict choice for irreversible methods among participants.

Methods

Study site and participants

This cross-sectional study was approved by the local Research Ethics Committee. We recruited patients from the family planning outpatient clinic of the Hospital de Clínicas de Uberlândia/ Minas Gerais (a public university hospital in the countryside of the Brazilian Southeast) from June 2015 to July 2016. It is one of the referral centers in the city for tubal ligation and vasectomy. Our family planning service provides assistance to men and women in childbearing age living in Uberlândia and receives patients in a free-demand basis. However, more than 70% of the people in our outpatient clinic have one or more children and seek for irreversible contraceptive methods (data from our service). Eligible participants were all literate respondents older than 18 years, who were part of the multidisciplinary counseling group of the family planning service. Pregnant women and participants who signed informed consent form but did not complete all survey forms were excluded.

The multidisciplinary team of our outpatient clinic comprises social workers, nurses, gynecologists, and psychologists. The team is involved in counseling activities on contraceptive methods via the provision of lectures and audiovisual material. Our family planning service is freely available to the local population.

Contraceptive counseling lectures

Contraceptive counseling lectures were held once a month in rooms for a maximum of 20 participants, with available audiovisual resources. Throughout the study period, the same multidisciplinary team (not involved with the researchers) was responsible for administering information on the counseling lectures with the use of audiovisual resources and educational material available for handling. Lecturers addressed all legal and practical information on the contraceptive methods offered by the national public health services, with emphasis on methods considered efficacious or very efficacious (oral and injectable hormonal contraceptives, copper intrauterine device, as well as irreversible methods, including tubal ligation and vasectomy). Counseling covered in the lectures followed recommendations of the World Health Organization (WHO)⁴ and the Brazilian regulations on family planning¹⁶. Lectures included information on the efficacy of all contraceptive

methods (spermicides, fertility awareness, withdrawal, male and female condom, diaphragm, hormonal oral and injectable contraceptives, intrauterine devices, etonogestrel implant, male and female sterilization) their proper use, mechanisms of action, side effects, risks and benefits, return to fertility, and their efficacy in the prevention of sexually transmitted diseases. Additional information was provided according to questions raised by the participants. Lectures lasted as long as two hours. In this study, only the contraceptive methods considered very efficacious or efficacious (hormonal oral and injectable contraceptives, intrauterine devices, male and female sterilization) by the World Health Organization (WHO)⁴ and offered free of charge in our country were included for analysis.

Questionnaires

Participants who agreed to participate in the study signed an informed consent form before attending the counseling lecture. Before the lecture, participants individually answered a questionnaire on sociodemographic data (age, sex, marital status, education, number of pregnancies, number of abortions, and number of children), contraceptive method of choice, and individual opinion about the efficacy of each method. After the lecture, participants answered another questionnaire with items on the contraceptive method chosen at the end of counseling. They also reported how much the lectures influenced their contraceptive choice, with three possible answers (“very much”, “a little” and “nothing at all”). All questionnaires were answered by self-report. Details of the survey forms were known only by a single member of the research team and were coded with random and sequential paired numbers (pre- and post-counseling).

Sample size and statistical analysis

Sample size with a maximum error margin of 5% and statistical power of 80% was calculated for 90 participants¹⁷. Considering 15% of data loss, a minimum of 103 participants would be required for recruitment. We used descriptive statistics to analyze the sociodemographic characteristics of the study participants and chi-square tests to determine differences in the sociodemographic characteristics according to gender. For paired dependent variables, we used the marginal homogeneity test to evaluate differences of opinion in regards to the efficacy of the contraceptive

methods and the choice of the method before and after the lecture. For independent variables, we used the G-test to evaluate differences of opinion in regards to the efficacy and choice of the methods according to gender. We conducted binary logistic regression to identify the sociodemographic predictors of contraceptive options.

Results

During the period of the study, 103 men and women participated in the counseling lectures. All of them accepted participation in the study, but two did not complete the post-counseling forms, which resulted in a total of 101 respondents. The sample consisted mostly of women (59.4%) aged 25 to 35 years (66.7%), with complete or incomplete high school education (61.8%). Among participants aged more than 35 years, men are the majority (41.5%). Women had a higher educational degree compared to men (25.5% of women and 17.5% of men). Participating men and women did not differ according to the number of children ($p = 0.230$) (Table 1).

For female participants, tubal ligation was considered the most efficacious method of contraception both before (65.4%) and after (51.9%) the lecture ($p = 0.433$). For the male participants, vasectomy was chosen as the most efficacious method both before (56.8%) and after (70.3%) counseling. Male participants changed their opinion after the lecture as to the most efficacious contraceptive method; a higher percentage of responses were related to the choice of vasectomy as the most efficacious method, while a smaller proportion of respondents reported not knowing which method was more efficacious after counseling (24.3% versus 0.0%; $p = 0.006$). After counseling, a lower percentage of women (12.7% versus 1.8%; $p = 0.020$) and men (25.5% versus 7.7%; $p = 0.003$) reported not knowing which method was less efficacious, and a higher proportion of women (72.7% versus 83.6%; $p = 0.020$) and men (61.5% versus 87.2%; $p = 0.003$) have chosen oral contraceptive pills as the least efficacious method (Table 2).

After the lecture, women did not change their choices for tubal ligation as a primary contraceptive option ($p=0.550$). Among men, a significantly lower percentage of participants did not know their choice for contraceptive method after the lecture (12.5% before versus 0% after; $p = 0.012$). Gender comparisons indicated that women chose tubal ligation more often than men (p

Table 1. Sociodemographic characteristics of the study participants (n=101).

Characteristics	Subgroups	Sex		X ² statistics (p)*
		Female (n=60)	Male (n=41)	
		n (%)	n (%)	
Age	18-24 years	10 (16.7)	5 (12.2)	7.65 (0.022)
	25-35 years	40 (66.7)	19 (46.3)	
	> 35 years	10 (16.7)	17 (41.5)	
Education**	Primary education	7 (12.7)	14 (35.0)	6.71 (0.035)
	High school education	34 (61.8)	19 (47.5)	
	Higher education	14 (25.5)	7 (17.5)	
Stable union**	No	16 (27.1)	3 (7.3)	4.94 (0.026)
	Yes	43 (72.9)	38 (92.7)	
Number of children**	No children	6 (10.0)	9 (22.5)	2.94 (0.230)
	1 child	12 (20.0)	7 (17.5)	
	> 1 child	42 (70.0)	24 (60.0)	

* χ^2 : Chi-square test between genders. ** Missing data.

Table 2. Efficacy of contraceptive methods according to the opinion of the participants before and after the contraceptive counseling (n=101).

Methods	More efficacious			
	Female		Male	
	Before n (%)	After n (%)	Before n (%)	After n (%)
Oral pills	0 (0)	0 (0)	0 (0)	0 (0)
Hormonal injection	1 (1.9)	1 (1.9)	1 (2.7)	1 (2.7)
Intrauterine device	2 (3.8)	2 (3.8)	0 (0)	1 (2.7)
Tubal ligation	34 (65.4)	27 (51.9)	6 (16.2)	9 (24.3)
Vasectomy	12 (23.1)	22 (42.3)	21 (56.8)	26 (70.3)
Does not know	3 (5.8)	0 (0)	9 (24.3)	0 (0)
Total*	52 (100%)		37 (100%)	
Marginal homogeneity test (p)	-0.784 (0.433)		2.746 (0.006)	
G-test (p) for gender	Before 23.981 (<0.001)		After 6.562 (0.087)	
Methods	Less efficacious			
	Female		Male	
	Before n (%)	After n (%)	Before n (%)	After n (%)
Oral pills	40 (72.7)	46 (83.6)	24 (61.5)	34 (87.2)
Hormonal injection	3 (5.5)	5 (9.1)	2 (5.1)	0 (0)
Intrauterine device	3 (5.5)	0 (0)	1 (2.6)	0 (0)
Tubal ligation	1 (1.8)	3 (5.5)	0 (0)	1 (2.6)
Vasectomy	1 (1.8)	0 (0)	2 (5.1)	1 (2.6)
Does not know	7 (12.7)	1 (1.8)	10 (25.6)	3 (7.7)
Total*	55 (100%)		39 (100%)	
Marginal homogeneity test (p)	2.334 (0.020)		3.015 (0.003)	
G-test (p) for gender	Before 4.036 (0.544)		After 7.763 (0.100)	

*Missing data.

< 0.05). Men chose vasectomy more often than women both before and after the lecture (p < 0.05) (Table 3).

Most women (62.7%) and men (62.5%) reported that the lecture influenced their final decision "very much" (data not shown).

The analysis of sociodemographic variables by binary logistic regression indicated that for each child the participants had, the likelihood of choosing a definitive method increased 5.608-fold (95%CI, 2.082 to 15.106) before the lecture and 30.870-fold (95%CI, 5.503 to 173.168) after

the lecture. Being female significantly decreased (OR, 0.121; 95%CI, 0.019 to 0.759; $p < 0.05$) the likelihood of choosing a definitive method before counseling (Table 4).

Discussion

According to the Brazilian legislation, family planning actions are intended to assist women, men or couples in the choice of family composition¹⁶. They are directed to help with the decision as to the interval between births, and to develop conscious and safe sexual relations⁶. Ideally, such actions should focus on men and women in childbearing ages, especially young adults and adolescents.

However, the development of efficient educational strategies for the guidance of young adults and adolescents is still limited in our country¹⁸. At the beginning of their sexual lives, young individuals usually have no or misleading contraceptive information, and this information is not sufficient to prevent an unwanted pregnancy². Our results reinforce this reality, considering that the minority of participants of the family planning service belonged to younger age groups. Our sample is consistent with the characteristics of the users of public family planning programs in our country: most of them are women, in a stable union, with more than a child and are in the third decade of life^{5,19}.

Gender issues within family planning are important to understand power relations with-

Table 3. Contraceptive method of choice before and after the counseling lecture according to gender (n=101).

Method	Female		Male	
	Before n (%)	After n (%)	Before n (%)	After n (%)
Oral pills	0 (0)	0 (0)	0 (0)	0 (0)
Hormonal injection	2 (3.3)	1 (1.7)	0 (0)	1 (2.5)
Intrauterine device	11 (18.3)	15 (25.9)	5 (12.5)	6 (15)
Tubal ligation	30 (50)	21 (36.2)	4 (10)	6 (15)
Vasectomy	12 (20)	21 (36.2)	26 (65)	27 (67.5)
Does not know	5 (8.3)	0 (0)	5 (12.5)	0 (0)
Total*	60 (100)	58 (100)	40 (100)	40 (100)
Marginal homogeneity test	0.59 (0.550)		2.50 (0.012)	
G-test (p) for gender	Before 26.372 (<0.001)		After 9.274 (0.025)	

*Missing data.

Table 4. Sociodemographic predictors of initial and final choices of irreversible contraceptive methods (n=75).

Prediction	Variable	B	p value*	Odds ratio	Confidence interval
Initial choice	Constant	-0.991	0.599	0.371	-
	Female gender	-2.112	0.024	0.121	0.019-0.759
	Age	0.034	0.517	1.035	0.933-1.147
	Marital status	0.125	0.889	1.133	0.195-6.600
	Education (primary education)	-	0.787	-	-
	Education (high school education)	0.376	0.733	1.456	0.168-12.645
	Education (higher education)	0.557	0.489	1.745	0.360-8.461
	Number of children	1.724	0.001	5.608	2.082-15.106
Final choice	Constant	-5.649	0.030	0.004	-
	Female gender	1.965	0.082	7.138	0.778-65.466
	Age	0.043	0.447	1.044	0.934-1.167
	Marital status	1.533	0.299	4.632	0.256-83.780
	Education (elementary education)	-	0.509	-	-
	Education (high school education)	0.972	0.493	2.644	0.164-42.686
	Education (higher education)	-0.698	0.536	0.497	0.054-4.546
	Number of children	3.430	<0.001	30.870	5.503-173.168

*Binary logistic regression.

in family and social groups. In our country, due to cultural and historical reasons, childbearing is considered a social demonstration of virility among men and pregnancy, childcare, and child education are transferred to the responsibility of women²⁰. Changes in familiar structures and the need of women to get into the workforce have increased responsibilities and social demands on women. This patriarchal culture places women at the center of birth control²¹. This may justify a higher proportion of women participating in our family planning service.

Women have achieved autonomy in terms of the choice of contraceptive methods probably due to their ability to maintain a dialogue and negotiate within the family unit. They seem to consider that tubal ligation is the most efficacious solution to limit the number of children they have, despite their knowledge of the efficacy of other methods²⁰. This may explain our results as we observed that women remained opting for an irreversible method to themselves, even after receiving information on more efficacious methods through the counseling lecture. In other words, women take the responsibility for contraception. Furthermore, we should consider the difficulty in access to very efficacious methods in the public health system²² and the dissatisfaction of women with the reversible methods that are currently available²³ as contributing factors to these results. This dissatisfaction may be related to the possible failure of a reversible method used previously. Women who are actively involved in family composition choose tubal ligation after their ideal family size is achieved, especially in cases in which they have experienced a failure in the previous planning of family size²⁴⁻²⁶. We also need to consider the unwillingness of women to continue to assume the responsibility for reversible contraception and their decision to interrupt the reproductive cycle and enjoy sexual freedom without the fear of unwanted pregnancy²⁵.

Men rarely seek family planning services, probably because of their lack of concern with contraception, considering that the only methods available to them are male condom, abstinence, and vasectomy^{27,28}. These methods are not well accepted by the male population^{25,28}. Men who seek family planning services may do so because of their previous choice to receive a vasectomy. They are often willing to cease their offspring due to financial and familiar concerns²⁵. These data are in accordance with our results, since men in our study seek vasectomy as a main choice of contraception, not only before but also after the counseling lecture.

Recent studies held in underdeveloped and in in-development countries show the importance of contraceptive counseling tailored to male participants' degree of education. According to such studies, higher impact of counseling in participants' decision is observed among men with the lowest degree of education^{29,30}. The lecture was also effective in fostering a final decision for any contraceptive method.

Most participants opted for irreversible methods that were more common, more accepted by society and more efficacious. The lecture had a positive impact on participants' opinions regarding the efficacy of methods, but it was not efficient in changing their choice at the end of the process. A previous study has shown that structured counseling has little impact on the choice of contraceptive methods¹⁰ and that the selection of very efficacious or efficacious methods is already expected among participants of family planning services. It seems that these individuals attempt to cease their offspring instead of planning for the size of their family, especially in referral services like ours.

Despite self-reports of the strong influence of the counseling lecture on their final choices, the study participants maintained their initial choice of definitive contraceptive methods. Participants' reports may have been influenced by the effect of social desirability (i.e., the answer to this question may have been provided by assuming that the answer was in accordance with the interviewer's expectations)².

The variable that most strongly influenced the choice of irreversible methods was the number of children. The option to not bear more children may have been influenced by factors related to family income, spending on health and education, and affective aspects^{25,26}. In our country, the limited impact of existing family planning services in the coverage of the population of teenagers and young adults^{18,23,31,32}, who have a greater ability to plan their family size rather than limit it³³, may also explain our results.

Limitations of family planning educational services may also be attributed to the lecture approach widely used among health professionals in our country. In general, lectures on contraceptive methods have an exclusively informational purpose, merely covering technical aspects of contraception. The lecturer-centered approach rarely considers the individual needs of the participants. Lectures involve passive learning strategies, with few activities based on adult learning theories^{14,34}.

Nowadays, the largest challenge for health professionals is the practice of health education

grounded on adult learning theories (for instance, group discussions, role-play, games) so as to value individual emotions and experiences, through a collaborative construction of knowledge among educators and learners. Such an approach might ensure the right to autonomy and dignity in individual choices³⁵.

Our study has some limitations. First, its cross-sectional design did not allow long-term analysis of the impact of the counseling lecture on contraceptive choice. However, if short-term influence did not occur, we believe that changes in contraception choices among participants after the counseling lecture are unlikely. Second, although we investigated participants' opinions on contraception methods efficacy right before counseling, we did not register any contraception counseling that patients might have had previously to our study. Finally, we could not compare different teaching-learning strategies for contraceptive counseling. Further studies should investigate the impact of learner-centered approaches in the opinion and choice of individuals who seek contraceptive counseling.

Conclusion

Multidisciplinary counseling lectures were a useful tool for guidance on the efficacy of contraceptive methods (reversible or irreversible), although

they did not impact the choice of the method. The number of children was the primary predictor for irreversible contraception choices.

In the health education field, new teaching and learning practices planned from a critical reflection of health professionals on their educational practices and tailored according to the emotional and educational needs of participants are necessary for the full exercise of individual autonomy. Interesting experiences report on the use of role play and group discussion techniques, for example³⁶. The ideal family planning strategy should consider the family unit as a whole and include the consideration of the ideal period for the establishment of a family. The use of educational strategies that value the emotions and knowledge of individuals is essential to the conscious exercise of one's sexuality. Particularly in underdeveloped and in-development countries, adolescents and young adults should be considered the target audience in the restructuring of family planning resources via an expansion of educational practices outside health services. Effective family counseling strategies should include social participation in community health councils, with adequate language and warrant of access to all communication media available. Educational strategies should also be able to reduce the rates of unsafe abortions and maternal-child morbidity and mortality, which are essential for the exercise of human rights.

Collaborations

The authors contributed equally to the paper.

References

1. Ganatra B, Faundes A. Role of birth spacing, family planning services, safe abortion services and post-abortion care in reducing maternal mortality. *Best Pract Res Clin Obstet Gynaecol* 2016; 36:145-155.
2. Nobili MP, Piergrossi S, Brusati V, Moja EA. The effect of patient-centered contraceptive counseling in women who undergo a voluntary termination of pregnancy. *Patient Educ Couns* 2007; 65(3):361-368.
3. Hardee K, Harris S, Rodriguez M, Kumar J, Bakamjian L, Newman K, Brown W. Achieving the Goal of the London Summit on Family Planning By Adhering to Voluntary, Rights-Based Family Planning: What Can We Learn from Past Experiences with Coercion? *Int Perspect Sex Reprod Health* 2014; 40(4):206-214.
4. World Health Organization (WHO). *Medical eligibility criteria for contraceptive use*. 4th ed. Geneva: WHO; 2010.

5. Ervatti LR, Borges GM, Jardim APO. *Mudança Demográfica no Brasil no início do século XXI*. Rio de Janeiro: Subsídios Para Projeções Popul: IBGE; 2015.
6. Lopez LM, Steiner M, Grimes DA, Schulz KF. Strategies for communicating contraceptive effectiveness. *Cochrane Database Syst Rev* 2008; (2):CD006964.
7. Steiner MJ, Dalebout S, Condon S, Dominik R, Trussell J. Understanding risk: a randomized controlled trial of communicating contraceptive effectiveness. *Obstet Gynecol* 2003; 102(4):709-717.
8. Steiner MJ, Trussell J, Mehta N, Condon S, Subramaniam S, Bourne D. Communicating contraceptive effectiveness: A randomized controlled trial to inform a World Health Organization family planning handbook. *Am J Obstet Gynecol* 2006; 195(1):85-91.
9. Dehlendorf C, Levy K, Kelley A, Grumbach K, Steinauer J. Women's preferences for contraceptive counseling and decision making. *Contraception* 2013; 88(2):250-256.
10. Langston AM, Rosario L, Westhoff CL. Structured contraceptive counseling—A randomized controlled trial. *Patient Educ Couns* 2010; 81(3):362-367.
11. Stephenson R, Vwalika B, Greenberg L, Ahmed Y, Vwalika C, Chomba E, Kilembe W, Tichacek A, Allen S. A randomized controlled trial to promote long-term contraceptive use among HIV-serodiscordant and concordant positive couples in Zambia. *J Women's Health* 2011; 20(4):567-574.
12. Ferreira ALCG, Souza AI, Pessoa RE, Braga C. The effectiveness of contraceptive counseling for women in the postabortion period: an intervention study. *Contraception* 2011; 84(4):377-383.
13. Adanikin AI, Onwudiegwu U, Loto OM. Influence of multiple antenatal counseling sessions on modern contraceptive uptake in Nigeria. *Eur J Contracept Reprod Health Care Off J Eur Soc Contracept* 2013; 18(5):381-387.
14. Javadi M, Kargar A, Gholami K, Hadjibabaie M, Rashidian A, Torkamandi H, Sarayani A. Didactic Lecture Versus Interactive Workshop for Continuing Pharmacy Education on Reproductive Health: A Randomized Controlled Trial. *Eval Health Prof* 2015; 38(3):404-418.
15. Lee JK, Parisi SM, Akers AY, Borrero S, Schwarz EB. The impact of contraceptive counseling in primary care on contraceptive use. *J Gen Intern Med* 2011; 26(7):731-736.
16. Brasil. Lei Ordinária nº 9.263, de 12 de janeiro de 1996. Regula o parágrafo 7 do artigo 226 da Constituição Federal, que trata do planejamento familiar, estabelece penalidades e dá outras providências. *Diário Oficial da União*; 1996.
17. Faul F, Erdfelder E, Lang A-G, Buchner A. G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behav Res Methods* 2007; 39(2):175-191.
18. Taquette SR, Monteiro DLM, Rodrigues NCP, Rozenberg R, Menezes DCS, Rodrigues AO, Ramos JAS. Saúde sexual e reprodutiva para a população adolescente, Rio de Janeiro, Brasil. *Cien Saude Colet* 2017; 22(6):1923-1932.
19. Olinto MTA, Galvão LW. Reproductive characteristics of women from 15 to 49 years of age: comparative studies and planning for actions. *Rev Saúde Pública* 1999; 33(1):64-72.
20. Ferreira RV, Costa MR, Melo DCS. Planejamento Familiar: gênero e significados/Family Planning: gender and significance. *Textos Context* 2014; 13(2):387-397.
21. Carvalho MLO, Pirota, KCM, Shor N. Participação masculina na contracepção pela ótica feminina. *Rev Saúde Pública* 2001; 35(1):23-31.
22. Quadros MT, Santos GMNC. Obstáculos na procura pela esterilização feminina entre mulheres do Bolsa Família. *Cad Saúde Pública* 2017; 33(4):e00152515.
23. Rosenfeld JA, Zahorik PM, Saint W, Murphy G. Women's satisfaction with birth control. *J Fam Pract* 1993; 36(2):169-174.
24. Bumpass LL, Thomson E, Godecker AL. Women, men, and contraceptive sterilization. *Fertil Steril* 2000; 73(5):937-946.
25. Marcolino C, Galastro EP. As visões feminina e masculina acerca da participação de mulheres e homens no planejamento familiar. *Rev Lat Am Enferm* 2001; 9(3):77-82.
26. Santos JC, Freitas PM. Planejamento familiar na perspectiva do desenvolvimento. *Cien Saude Colet* 2011; 16(3):1813-1820.
27. Roth MY, Amory JK. Beyond the Condom: Frontiers in Male Contraception. In: Seminars in reproductive medicine. *Semin Reprod Med* 2016; 34(3):183-190.
28. Ringheim K. Factors that Determine Prevalence of Use of Contraceptive Methods for Men. *Stud Fam Plann* 1993; 24(2):87-99.
29. Babalola S, Kusemiju B, Calhoun L, Corroon M, Ajao B. Factors associated with contraceptive ideation among urban men in Nigeria. *Int J Gynecol Obstet* 2015; 130(Supl. 3):E42-E46.
30. Bietsch KE. Men's attitudes towards contraception in sub-Saharan Africa: original research. *Afr J Reprod Health* 2015; 19(3):41-54.
31. Belo MA, Silva JL. Knowledge, attitudes, and practices on previous use of contraceptive methods among pregnant teenagers. *Rev Saúde Pública* 2004; 38(4):479-487.
32. Santos MA, Vieira EM. Aconselhamento em contracepção: grupo de capacitação de profissionais médicos do Programa de Saúde da Família. *Interface (Botucatu)* 2008; 12(26):589-601.
33. Yanda K. Teenagers educating teenagers about reproductive health and their rights to confidential care. *Fam Plann Perspect* 2000; 32(5):256-257.
34. Misch DA. Andragogy and Medical Education: Are Medical Students Internally Motivated to Learn? *Adv Health Sci Educ* 2002; 7(2):153-160.
35. Freire P. *Pedagogy of autonomy: knowledge necessary for educational practice*. Sao Paulo: Peace Earth; 1996.
36. Card JJ, Lessard L, Benner T. PASHA: facilitating the replication and use of effective adolescent pregnancy and STI/HIV prevention programs. *J Adolesc Health Off Publ Soc Adolesc Med* 2007; 40(3):275.e1-14.

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