

# Knowledge and attitudes of adolescents on contraception

*Saberes e atitudes dos adolescentes frente à contracepção*

*Saberes y actitudes de los adolescentes frente a la contracepción*

Stéfani de Salles Mendes<sup>1</sup>, Raissa Maria F. Moreira<sup>1</sup>, Christine Baccarat G. Martins<sup>2</sup>, Solange Pires S. Souza<sup>3</sup>, Karla Fonseca de Matos<sup>4</sup>

## ABSTRACT

**Objective:** To describe and analyze adolescents' knowledge and attitudes in relation to contraception.

**Methods:** Descriptive study with a quantitative analysis comprising a sample of 499 adolescents of five state schools of Cuiabá, MT, Brazil, with a structured questionnaire. Data were processed and analyzed by Epi-Info software, with bivariate analysis.

**Results:** Among the studied adolescents, 36% were sexually active; the use of contraceptive methods was referred by 77% of the girls and 66% of the boys; 55% stated they were more familiar with condoms associated with oral and injectable contraceptives; among the adolescents who were sexually active, 40% of the boys and 58% of the girls talk with their lovers/partners on ways to avoid pregnancy; 54% of the girls and 40% of the boys stated that both the man and the woman should use a contraceptive method; the source of indication of contraceptive methods were friends for 22% of the boys and physicians for 36% of the girls.

**Conclusions:** Although adolescents present some knowledge and adequate attitudes about contraception, there is still the need for prevention and sexual orientation in face of the lack of dialogue between partners, the non-adoption of preventive methods in all sexual intercourses and the reported pregnancy rate.

**Key-words:** contraception; adolescent behavior; adolescent health; pregnancy in adolescence; sexuality.

## RESUMO

**Objetivo:** Descrever e analisar os saberes e atitudes dos adolescentes sobre a contracepção.

**Métodos:** Estudo descritivo com análise quantitativa, compreendendo uma amostra de 499 adolescentes de cinco escolas estaduais de Cuiabá, MT, utilizando-se um questionário fechado. Os dados foram processados e analisados pelo programa Epi-Info, com análises bivariadas.

**Resultados:** Entre os adolescentes estudados, constatou-se que 36% têm vida sexual ativa, sendo o uso atual de algum método contraceptivo presente em 77% das meninas e 66% dos meninos; com relação aos métodos contraceptivos mais conhecidos pelos adolescentes, 55% declararam conhecer o preservativo juntamente com os anticoncepcionais orais e injetáveis; identificou-se entre os adolescentes sexualmente ativos que apenas 40% dos meninos e 58% das meninas conversam sempre com seus namorados(as)/parceiros(as) sobre maneiras de evitar a gravidez; 54% das meninas e 40% dos meninos declararam que quem deve usar o método contraceptivo deve ser tanto o homem quanto a mulher; a fonte de indicação dos métodos contraceptivos foram os amigos(as) para 22% dos meninos e os médicos para 36% das meninas.

**Conclusões:** Apesar de os adolescentes apresentarem alguns conhecimentos e atitudes adequadas em relação à contracepção, ainda há a necessidade de ações de prevenção e orientação sexual, tendo em vista o relato de pouco diálogo entre os parceiros, a não adoção de métodos de prevenção em todas as relações sexuais e a ocorrência de gravidez.

Instituição: Departamento de Enfermagem da Universidade Federal de Mato Grosso (UFMT), Cuiabá, MT, Brasil

<sup>1</sup>Acadêmica de Enfermagem e Aluna de Iniciação Científica da UFMT, Cuiabá, MT, Brasil

<sup>2</sup>Doutora em Enfermagem em Saúde Pública pela Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo; Professora Adjunta do Departamento de Enfermagem da UFMT, Cuiabá, MT, Brasil

<sup>3</sup>Doutora em Saúde Pública pela Faculdade de Saúde Pública da USP; Professora Adjunta do Departamento de Enfermagem da UFMT, Cuiabá, MT, Brasil

<sup>4</sup>Mestranda em Enfermagem pela UFMT, Cuiabá, MT, Brasil

Endereço para correspondência:

Christine Baccarat G. Martins  
Rua Fortaleza, 70 – Jardim Paulista  
CEP 78065-350 – Cuiabá/MT  
E-mail: leocris2001@terra.com.br

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**Palavras-chave:** anticoncepção; comportamento do adolescente; saúde do adolescente; gravidez na adolescência; sexualidade.

## RESUMEN

**Objetivo:** Describir y analizar los saberes y actitudes de los adolescentes sobre la contracepción.

**Métodos:** Estudio descriptivo con análisis cuantitativo, comprendiendo una muestra de 499 adolescentes de cinco escuelas estaduais de Cuiabá (Mato Grosso, Brasil), utilizando un cuestionario cerrado. Los datos fueron procesados y analizados por el programa Epi-Info, con análisis bivariados.

**Resultados:** Entre los adolescentes estudiados, se constató que el 36,4% de ellos tienen vida sexual activa, siendo el uso actual de algún método contraceptivo presente en 76,6% de las muchachas y el 66,0% de los muchachos; respecto a los métodos contraceptivos más conocidos por los adolescentes, 55,1% declararon conocer el preservativo juntamente con los contraceptivos orales e inyectables; se identificó entre los adolescentes sexualmente activos que solo un 40,3% de los muchachos y el 58,2% de las muchachas charlaban siempre con sus novios(as)/parceros(as) sobre modos de evitar el embarazo; 53,7% de las muchachas y el 39,5% de los muchachos declararon que quién debe usar el método contraceptivo debe ser tanto el hombre como la mujer; la fuente de indicación de los métodos contraceptivos fueron los amigos(as) para el 22,1% de los muchachos y los médicos para el 36,1% de las muchachas.

**Conclusiones:** A pesar que los adolescentes presentan algunos conocimientos y actitudes adecuadas respecto a la contracepción, todavía hay la necesidad de acciones de prevención y orientación sexual, teniendo en cuenta el relato de poco diálogo entre los parceros, la no adopción de métodos de prevención en todas las relaciones sexuales y la ocurrencia de embarazo.

**Palabras claves:** anticoncepción; comportamiento del adolescente; salud del adolescente; embarazo en la adolescencia; sexualidad.

## Introduction

Sexuality, which is present throughout people's whole life, is more intensively expressed in adolescence. This phenomenon arouses the concern of health professionals because sexuality is often experienced by adolescents by means of unsafe sexual practices. Another reason for concern is the lack of information and communication between family members, either because of taboos or adolescents' fear of taking control over their

sexuality<sup>(1,2)</sup>. Such unsafe experiences may lead to unwanted pregnancies and sexually transmitted diseases (STDs)<sup>(3)</sup>.

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO)<sup>(4)</sup>, 32.8% of Brazilian youths between 12 and 17 years old have began their sex lives, and, of these, 61% are males. As a consequence of early sexual activity, pregnancy is a frequent event, contributing to increase fertility<sup>(5,6)</sup>. Based on data provided by the Brazilian Institute of Geography and Statistics (IBGE) in 2000<sup>(7)</sup>, there was an increase in the contribution of young women (from 15 to 19 years old) to Brazil's fertility rate. This increase is observed mainly in the North, Northeast, and Central West regions of the country. Central West is the region showing the highest proportional increase in pregnancies of women younger than 20 years old (from 11.3% in 1980 to 23.6% in 2000).

The reason for the high rate of pregnancy and STDs in adolescence is considered to be the lack of appropriate use of contraceptive methods. Such behavior is caused by the following aspects: adolescents' denial of the possibility of pregnancy, the fact that the sexual intercourses are casual, adolescents' belief that when using contraceptive methods they are acknowledging their active sex life, and adolescents' poor knowledge about contraceptive methods<sup>(8,9)</sup>.

In this context, prevention becomes a priority. However, in order to implement strategies to reduce these events among adolescents, first it is necessary to know the extent to which adolescents can understand contraception, which are their contraceptive practices, and the reasons that lead them to have safe practices.

Therefore, the objective of the present study was to describe and analyze the knowledge and attitudes about contraception of adolescents in the first year of high school from public state schools of Cuiabá, state of Mato Grosso, Brazil. Our findings may provide primary data for the elaboration of policies for sexual health addressing this population.

## Method

This is a cross-sectional study with quantitative analysis, whose study population included students in the first year of high school from five public state schools of the capital city of Mato Grosso (Cuiabá), Brazil. The schools were randomly selected in advance with the help of the State Department of Education – SEDUC, totaling 22 groups of students, whose inclusion criterion was agreeing to participate in the study, and the exclusion criterion was not being aged between 10 to 19 years, a period defined by the World Health Organization (WHO) as adolescence.

Data were collected using a self-reported questionnaire consisting of 12 questions (10 closed and two open questions).

This instrument was adjusted by means of a pilot test at a school that was not included in the present study. Adolescents volunteered to participate in the study and signed a written consent form. Participants were assured strict confidentiality of information, as well as privacy and anonymity. Parental consent for children to participate in the study was obtained by the schools where the study was conducted. The questionnaire was administered under the supervision of the researchers, who were assisted by a team of volunteers. The State Department of Education and the boards of the schools authorized the study. The study protocol was approved by the Research Ethics Committee of *Hospital Universitário Júlio Muller, Universidade Federal de Mato Grosso*.

The variables were: importance of family planning; best known contraceptive methods; dialogue with his (her) partner about the use of contraceptive methods; if adolescents consider the possibility of pregnancy at the time of sexual intercourse; who should use the contraceptive method to avoid pregnancy; current use of contraceptive methods and whose was the initiative of its use and source of recommendation; ideal contraceptive method for adolescents according to their opinion; girls and boys' behavior regarding an unplanned pregnancy; experience of pregnancy in both genders and if they had already interrupted a pregnancy, as well as the reasons for this interruption.

Data were analyzed using Epi-Info version 3.5.1, considering absolute and relative frequency. For bivariate analyses, we used the chi-square test for associations, considering a  $p$ -value < 0.05 as significant.

## Results

We studied 499 adolescents in the first year of high school, whose mean age was  $15.4 \pm 1.0$  years, with a mean family income of  $2.2 \pm 0.8$  (ranging from 1 to 3 minimum wages). Among the adolescents investigated, 38.1% were males and 61.9% were females. Of the participants, 39.9% reported they were sexually active. Of these, 55.0% were males and 30.6% were females. In terms of active sex life in the current relationship, 36.4% reported being sexually active, 50.0% of males and 50.0% of females.

When asked about the importance of family planning, 49.2% of the male participants reported they were sure about its importance, 30.2% believed it is important, 7.9% did not know, 5.8% did not answer the question, 5.3% thought that family planning is not important, and 1.6% were sure that family planning is not important. Most of the female participants (72.9%) were unsure of its importance, 18.0% believed it is important, 3.9% did not know, 2.6% thought

that family planning is not important, 1.6% were sure that family planning is not important, and 1.0% did not answer the question (males *vs* females, chi-square test:  $p < 0.001$ ).

With regard to the contraceptive methods best known among the participants, most adolescents (55.1%) mentioned condoms as well as oral and injectable contraceptives, 18.4% mentioned only condoms, 15.8% did not answer the question, 4.0% mentioned oral and injectable contraceptives, 3.8% did not know, 2.8% provided "other answers." The category "other answers" refers to rhythm method, intrauterine device, diaphragm, vasectomy, tubal ligation, withdrawal method, morning after pill, and sexual abstinence.

As for the frequency of conversations with the partner about methods to avoid pregnancy according to sexual experience (sexually active in the current relationship or not) there were statistically significant differences between the male and female adolescents included in the sexually active group ( $p < 0.001$ ). Among the males who were sexually active in the current relationship, 40.3% always talked with their partners about contraceptive methods, 22.4% talked about it sometimes, 19.4% never talked about it, 9.0% often talked about it, and 9.0% did not answer the question. Among the female participants who were sexually active in the current relationship, 58.2% always talked about contraceptive methods with their partners, 25.4% reported the conversations about this topic were frequent, 10.4% talked about it sometimes, and 6.0% never talked about it.

When we analyzed the same variable among those who reported being sexually inactive in the current relationship, we found that most males (32.0%) never talked to their partners about contraceptive methods, only 28.0% always talked about it, 24.0% talked about it sometimes, 12.0% did not answer the questions, and 4.0% reported the conversions about this topic were frequent. Among the females who were not sexually active in the current relationship, 43.5% always talked about contraception with their partners, 30.4% never talked about it, 13.0% reported they had frequent conversations about it, 8.7% talked about it sometimes, and 4.3% did not answer the question.

Table 1 shows the distribution of adolescents according to gender with regard to their opinion on the possibility of pregnancy after sexual intercourse. The proportion of males who said they always think about it (31.1%) was similar to the percentage of females (30.1%). However, the proportion of females who never think about this possibility (36.6%) was much higher than that of males (22.6%); and males think about the possibility of pregnancy more often (15.3%) than females (9.4%), these differences were confirmed by the  $p$  value = 0.007.

Table 2 shows that more than half of females (53.7%) and 39.5% of males said that both the man and the woman

should use contraceptive methods. The  $p$  value  $< 0.001$  shows that this opinion is different between the genders.

In terms of current use of contraceptive methods, of those adolescents who were sexually active in the current relationship (36.4%), 66.0% of males and 76.6% of females provided positive answers, 23.3% of males and 22.3% of females reported they did not use a contraceptive method, the question was not answered by 10.7% of males and only 1.1% of females, and there was 0.5% of inappropriate answers. Thus, there were differences regarding the use of contraceptive methods according to gender ( $p=0.016$ ).

Among those who reported being sexually active in the current relationship and using any contraceptive method, 41.2% of males reported that the decision about the contraceptive method used was made by the couple, 27.9% declared that the decision was made only by their partner, 22.1% said that they decided by themselves, 5.9% did not remember who made the decision, and 2.9% did not answer the question. Among females, 58.3% stated that this decision was made by the couple, 23.6% reported they decided by themselves, 15.3% declared that their partner made the decision, and 2.8% did not answer the question, with no significant difference between genders ( $p=0.062$ ).

**Table 1** - Distribution of adolescents according to considering the possibility of pregnancy after a sexual intercourse

	Gender			
	Male		Female	
	n	%	n	%
Always	59	31.1	93	30.1
Frequent	29	15.3	29	9.4
Sometimes	30	15.8	32	10.3
Never	43	22.6	113	36.6
Blank	29	15.3	40	12.9
Inappropriate answers	-	-	2	0.6
Total	190	100.0	309	100.0

**Table 2** - Distribution of adolescents according to gender about who should use the contraceptive method

	Gender			
	Male		Female	
	n	%	n	%
Man	51	26.8	29	9.4
Woman	17	8.9	37	12.0
Both	75	39.5	166	53.7
Anyone	23	12.1	56	18.1
I don't know	7	3.7	10	3.2
Blank	17	8.9	9	2.9
Inappropriate answers	-	-	2	0.6
Total	190	100.0	309	100.0

Table 3 shows data on the source of recommendation of the contraceptive method used by those adolescents who reported being sexually active in the current relationship and using any contraceptive method. With males reporting that the most frequent source of recommendation was a friend, while females reported it was a doctor ( $p=0.001$ ).

With respect to the ideal contraceptive method for adolescents according to the participants' opinion, 43.4% mentioned condoms, 29.0% did not answer, while 14.0% mentioned condoms and oral contraceptives, 7.0% provided "other answers", 3.4% did not know, and 3.0% of the adolescents answered that the most suitable contraceptive method for adolescents was the oral contraceptive. The category "other answers" was related to morning after pill, withdrawal method, and sexual abstinence.

Table 4 shows what behavior is expected from women when facing an unplanned pregnancy. According to males, the best option is to maintain the boyfriend/girlfriend relationship without getting married (30.5%), although some of them reported that they would try to get married (16.3%) or would give the child for adoption (10.0%). For females, the most frequent answer was to continue the relationship, have the child and then decide about getting married (44.3%) or raising the child by themselves (17.8%). There were statistically significant differences between genders ( $p < 0.001$ ).

Table 5 shows the participants' opinion about the men's behavior when facing an unplanned pregnancy. The most frequent answer was to support the girl to have the child but without the promise of getting married. There was no statistically significant difference between genders ( $p=0.3663$ ).

Among the males participating in the study, when asked about their experience with pregnancy, 72.6% reported they never

**Table 3** - Distribution of adolescents who reported being sexually active and using a contraceptive method according to gender and source of recommendation of the contraceptive method used

	Gender			
	Male		Female	
	n	%	n	%
Physician	5	7.4	26	36.1
Pharmacist	3	4.4	2	2.8
Friend	15	22.1	14	19.4
Mother/Stepmother	14	20.6	12	16.7
Father/Stepfather	10	14.7	-	-
I do not remember	5	7.4	5	6.9
Other	9	13.2	6	8.3
Blank	2	2.9	1	1.4
More than one	5	7.4	6	8.3
Total	68	100.0	72	100.0

**Table 4** - Distribution of adolescents according to gender regarding the measure to be taken by women facing an unplanned pregnancy

	Gender			
	Male		Female	
	n	%	n	%
Abortion	18	9.5	17	5.5
Give the child for adoption	19	10.0	12	3.9
Raise the child by herself	12	6.3	55	17.8
Try to get marry	31	16.3	31	10.0
Force marriage	5	2.6	10	3.2
Continue the boyfriend/girlfriend relationship	58	30.5	137	44.3
Other	5	2.6	18	5.8
Blank	42	22.1	27	8.7
Inappropriate answers	-	-	2	0.6
Total	190	100.0	309	100.0

**Table 5** - Distribution of adolescents according to gender regarding the measure to be taken by men facing an unplanned pregnancy

	Gender			
	Male		Female	
	n	%	n	%
Convince the partner to have an abortion	10	5.3	19	6.1
Support the abortion	8	4.2	4	1/3
Let the girl decide by herself	6	3.1	10	3.2
Support the girl to raise the child but without marriage	66	34.7	97	31.4
Propose marriage	37	19.5	81	26.2
Force marriage	3	1.6	5	1.6
I don't know	23	12.1	42	13.6
Other	6	3.1	5	1.6
Blank	30	15.8	43	14.0
Inappropriate answers	1	0.5	3	1.0
Total	190	100.0	309	100.0

impregnated a woman, 22.1% did not answer the question, 2.1% reported that their current girlfriend was pregnant, 2.1% reported that their ex-girlfriends got pregnant, and 1.1% reported that their current girlfriend had got pregnant before. It is important to highlight that among the male participants who reported having impregnated a woman, 40.0% informed that their girlfriends decided to have an abortion. Among females, 81.5% reported they never got pregnant, 15.0% did not answer the question, 1.9% provided inappropriate answers, 0.6% informed they were pregnant, 0.6% reported they got pregnant from the current boyfriend, and 0.3% got pregnant from an ex-boyfriend. Among the female participants who reported having got pregnant, none of them revealed having had an abortion.

## Discussion

Several authors have reported the phenomenon of the increasing number of adolescents who start their sexual life early combined with their lack of knowledge about contraception and reproduction<sup>(6,10)</sup>. We must also consider the implications and impact of such early sexual initiation, often aggravated by lack of knowledge, reflection, and critical awareness of their behavior related to sex. As a consequence of these factors, unexpected pregnancy has been reported as a vulnerability in this phase of life<sup>(3,9,11)</sup>, and it may contribute to maternal and neonatal morbidity and mortality, along with birth complications, prematurity, and increased risk of miscarriage<sup>(12,13)</sup>. Another consequence of adolescent pregnancy is the dropout rate, which can reduce the opportunities for professional growth and development<sup>(6)</sup>. Therefore, there is need for initiatives that address contraception/family planning involving this population with the purpose of providing counseling to adolescents towards a healthy sexuality with fewer risks.

According to the Brazilian Ministry of Health, assistance to family planning for adolescents must include preventive and educational actions and guarantee of equal access to information, methods, and techniques available for fertility regulation<sup>(14)</sup>. In this context, there is great concern about the quality of services that provide such counseling<sup>(10)</sup>. Therefore, there is an urgent need for strategies that address the adolescent population with regard to family planning, promoting opportunities for discussion that reach this age group whose individuals often have already started their sex lives.

The fact that the participants of our study are more familiar with condoms and oral contraceptives is in agreement with other studies<sup>(1,15)</sup>, which may be related to lack of knowledge about other methods, as well as the strong campaign promoted by the Ministry of Health focusing on condoms, and the fact that condoms are less expensive than other methods. However, mentioning contraceptive methods does not necessarily mean knowing them, that is, having enough information about their advantages, disadvantages, and how to use them<sup>(16)</sup>. It should be noted also that the blank responses found in this investigation show the need for counseling, since knowledge is a necessary element for the correct use of contraceptive methods.

Adolescents' lack of concern about the possibility of pregnancy when having a sexual relationship is in agreement with a study conducted with adolescent primigravidae, who mostly had not planned their current pregnancy<sup>(17)</sup>. Another study conducted in Campinas, state of São Paulo, Brazil, showed that 62% of the girls between 10 and 14 years old had their first sexual intercourse without using any

contraceptive methods<sup>(18)</sup>. Adolescents' lack of concern may be related to the fact that their relationships are occasional<sup>(8)</sup>, as well as to early sexual initiation, because the earlier it happens the lower the chances of using contraceptive methods and, consequently, the higher the chances of pregnancy<sup>(19)</sup>.

Regarding the responsibility of using a contraceptive method, a study conducted with adolescents at a public university in the state of São Paulo also reported that adolescents believe that the couple is responsible for it<sup>(3)</sup>. In this sense, counseling and prevention measures are essential not only for girls but also for boys in order to get them involved in the responsibility related to contraception.

It is important to stress the need to do more than just the activities carried out in the Primary Health Care Units, trying to establish new partnerships with schools. However, we should also highlight the importance of training teachers so that they can address issues such as contraception in adolescence at schools<sup>(16)</sup>. It is also possible to train adolescents, preparing them to become multipliers, since adolescents usually use their friends as a source of information<sup>(20)</sup>. Therefore, the linkage between the health and education sectors is indispensable.

Our finding about the current use of contraceptive methods by sexually active adolescents in the current relationship is in agreement with other studies<sup>(15,21)</sup>. Nevertheless, it should be noted that women are usually more involved with contraception, while men experience their sexuality with less concern<sup>(16)</sup>, which increases the frequency of unplanned pregnancy and STDs, in addition to increasing girls' burden with the responsibility contraception<sup>(22)</sup>.

The fact that females talk more often with their partners about contraception confirms that there is higher social demand on the female gender<sup>(22)</sup>. Thus, dialogue between the couple should be encouraged so that male adolescents are also responsible for contraception. Despite the joint initiative between partners regarding the use of contraceptive methods, a study conducted in Rio de Janeiro drew attention to the fact that the frequency of the initiative or request of the use of condoms among adolescents is still very low in both genders<sup>(23)</sup>. According to the same author, males rarely choose to use condoms, but do not refuse to do that when requested. Females, in turn, do not ask males to use condoms because they dislike it or get embarrassed. This type of behavior is a reason for concern because only one unprotected sexual intercourse can lead to pregnancy and STD transmission.

In regard with the choice and use of contraceptive methods, some authors<sup>(18)</sup> have argued that adolescence is a period when individuals are strongly influenced by external elements, especially within their social group. This has a consequence

in the choice of a contraceptive method. Thus, the influence of friends on the choice of a contraceptive method is very important, which was identified in the present study.

In addition to friends, today adolescents can enjoy greater access and availability of information through mass media like ads on television, radio, magazines, billboards, and the Internet<sup>(24,25)</sup>. In this context, both friends and the media are the sources of information for choosing a contraceptive method. It is noteworthy, therefore, the concern about the quality of information that should guide not only the types of contraceptive methods chosen but also its correct use, the individual's choice of the best method, its advantages and disadvantages.

The adolescents included in the present study reported that condoms are the ideal contraceptive method for adolescents. This result may be related to the campaigns to prevent STD/AIDS, stressing the importance of using condoms during every sexual intercourse<sup>(15,16,18)</sup>, in addition to the lower cost, greater availability, and no side effects compared to oral and injectable contraceptives<sup>(2,21)</sup>.

Some studies have shown that when relationships are considered stable, there is a decreased use of condoms and, consequently, greater adherence to oral contraceptives, which shows the progressive change in the adolescents' priority, that is, they are not longer concerned about protection against STDs and are only concerned about pregnancy prevention, a decision that is often motivated by the belief that their partner has proved to be loyal<sup>(15,23)</sup>. Another study<sup>(3)</sup> demonstrated that most adolescents believed that they should use condoms during every sexual intercourse; however, 17.6% reported they would have unprotected sex if they trusted their partner. These studies reveal that adolescents are only concerned about preventing an unwanted pregnancy, showing that they still believe they are not exposed to any kind of STD. A national study has shown that 86.4% of the girls and 85.7% of the boys consider that adolescents are at a high risk of acquiring STDs/AIDS today, but 11.4% of the girls and 10.2% of the boys considered being at a low risk of acquiring STDs/AIDS<sup>(11)</sup>.

With respect to the decision of maintaining the boyfriend/girlfriend relationship without getting married when facing an unexpected pregnancy, it is important to highlight adolescents' lack of financial independence and emotional maturity to take responsibility for the pregnancy<sup>(26)</sup>. Another aspect to be considered is the attitude of the family towards the early pregnancy, since many families are willing to raise the child without the parents' marriage<sup>(27)</sup>. Reaction to an unwanted pregnancy was also addressed in the present study. Self-inflicted abortion is a practice among adolescents as a measure to solve the unexpected event. An example is the

study by Aquino *et al*<sup>(28)</sup>, who found a high prevalence of abortion among adolescents facing their first pregnancy. The lower rate of induced abortion reported by the females in the present study has also been found in other studies<sup>(29,30)</sup> in which abortion is most often reported by boys than by girls, perhaps because they are not sure if the abortion was really performed or do not necessarily feel involved or responsible. On the other hand, females are more discreet when reporting an abortion, which can be understood based on the fact that they experience a difficult process until making a decision.

Thus, our findings suggest the need for educational programs involving adolescents at schools, since schools are usually where adolescents start dating, express their doubts, get information, and spend most of their time. In this context, health and education sectors complement each other in the pursuit of an interdisciplinarity able to face the challenges of sexual

counseling for adolescents. We also acknowledge the need for investment in training of health and education professionals so that they feel prepared and motivated to work with the topic of adolescent sexuality from the perspective of prevention. However, we would like to emphasize that sexual education is a process in which adolescents should not only get information, but also develop their own values with critical thinking to make responsible decisions, that is, linking their experiences and knowledge (values) to their behavior (practice).

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## References

- Camargo EA, Ferrari RA. Adolescentes: conhecimentos sobre sexualidade antes e após a participação em oficinas de prevenção. *Ciênc Saude Colet* 2009;14:937-46.
- Doreto DT, Vieira EM. O conhecimento sobre doenças sexualmente transmissíveis entre adolescentes de baixa renda em Ribeirão Preto, São Paulo, Brasil. *Cad Saude Publica* 2007;23:2511-6.
- Alves AS, Lopes MH. Conhecimento, atitude e prática do uso de pílula e preservativo entre adolescentes universitários. *Rev Bras Enferm* 2008;61:11-7.
- Organização das Nações Unidas para a Educação, a Ciência e a Cultura. Juventude e sexualidade. Brasília: UNESCO; 2004.
- Villela WV, Doreto DT. Sobre a experiência sexual dos jovens. *Cad Saude Publica* 2006;22:2467-72.
- Berlofi LM, Alkmin EL, Barbieri M, Guazzelli CA, Araújo FF. Prevenção da reincidência de gravidez em adolescentes: efeitos de um Programa de Planejamento Familiar. *Acta Paul Enferm* 2006;19:196-200.
- Brasil - Instituto Brasileiro de Geografia e Estatística [homepage on the Internet]. Fecundidade, natalidade e mortalidade [cited 2010 Mar 23]. Brasília: IBGE; 2000. Available from: <http://www.ibge.gov.br/ibgeteen/pesquisas/fecundidade.html>
- Sousa MC, Gomes KR. Conhecimento objetivo e percebido sobre contraceptivos hormonais orais entre adolescentes com antecedentes gestacionais. *Cad Saude Publica* 2009;25:645-54.
- Araújo MS, Costa LO. Comportamento sexual e contracepção de emergência entre adolescentes de escolas públicas de Pernambuco, Brasil. *Cad Saude Publica* 2009;25:551-62.
- Bié AP, Diógenes MA, Moura ER. Family planning: what do adolescents know about this matter? *RBPS* 2006;19:125-30.
- Jeolás LS, Ferrari RA. Oficinas de prevenção em um serviço de saúde para adolescentes: espaço de reflexão e de conhecimento compartilhado. *Cienc Saude Coletiva* 2003;8:611-20.
- Leite IC, Rodrigues RN, Fonseca MC. Fatores associados com o comportamento sexual e reprodutivo entre adolescentes das regiões Sudeste e Nordeste do Brasil. *Cad Saude Publica* 2004;20:474-81.
- Godinho RA, Schelp JR, Parada CM, Bertonecello NM. Adolescentes e grávidas: onde buscam apoio? *Rev Latinoam Enferm* 2000;8:25-32.
- Brasil - Ministério da Saúde. Assistência em planejamento familiar: manual técnico. 4ª ed. Brasília: Ministério da Saúde; 2002.
- Almeida MC, Aquino EM, Gaffikin L, Magnani RJ. Uso de contracepção por adolescentes de escolas públicas na Bahia. *Rev Saude Publica* 2003;37:566-75.
- Mendonça RC, Araújo TM. Métodos contraceptivos: a prática dos adolescentes das escolas agrícolas da Universidade Federal do Piauí. *Esc Anna Nery Rev Enferm* 2009;13:863-71.
- Carvalho IE, Pinto e Silva JL, Mello MB. Conhecimento de adolescentes grávidas sobre anatomia e fisiologia da reprodução. *Rev Assoc Med Bras* 2008;54:29-35.
- Alves AS, Lopes MH. Locus de Controle e escolha do método anticoncepcional. *Rev Bras Enferm* 2007;60:273-8.
- Cabral CS. Contracepção e gravidez na adolescência na perspectiva de jovens pais de uma comunidade favelada do Rio de Janeiro. *Cad Saude Publica* 2003;19 (Suppl 2):S283-92.
- Rangel DL, Queiroz AB. A representação social das adolescentes sobre a gravidez nesta etapa de vida. *Esc Anna Nery Rev Enferm* 2008;12:780-8.
- Custódio G, Schuelter-Trevisol F, Trevisol DJ, Zappelini CE. Comportamento sexual e fatores de risco para a ocorrência de gravidez, DST e HIV em estudantes do município de Ascurra (SC). *ACM Arq Catarin Med* 2009;38:56-61.
- Martins LB, Costa-Paiva L, Osís MJ, Sousa MH, Neto AM, Tadini V. Conhecimento sobre métodos anticoncepcionais por estudantes adolescentes. *Rev Saude Publica* 2006;40:57-64.
- Geluda K, Bosi ML, Cunha AJ, Trajman A. "Quando um não quer, dois não brigam": um estudo sobre o não uso constante de preservativo masculino por adolescentes do Município do Rio de Janeiro, Brasil. *Cad Saude Publica* 2006;22:1671-80.
- Guimarães AM, Vieira MJ, Palmeira JA. Informações dos adolescentes sobre métodos anticoncepcionais. *Rev Latino-am Enfermagem* 2003;11:293-8.
- Belo MA, Silva JL. Conhecimento, atitude e prática sobre métodos anticoncepcionais entre adolescentes gestantes. *Rev Saude Publica* 2004;38:479-87.
- Tachibana M, Santos LP, Duarte CA. O conflito entre o consciente e o inconsciente na gravidez não planejada. *Psyche (São Paulo)* 2006;10:149-67.
- Lima CT, Feliciano KV, Carvalho MF, Souza AP, Menabó JB, Ramos LS *et al*. Percepções e práticas de adolescentes grávidas e de familiares em relação à gestação. *Rev Bras Saude Matern Infant* 2004;4:71-83.
- Aquino EM, Heilborn ML, Knauth D, Bozon M, Almeida MC, Araújo JM *et al*. Adolescência e reprodução no Brasil: a heterogeneidade dos perfis sociais. *Cad Saude Publica* 2003;19 (Suppl 2):S377-88.
- Brandão ER. Desafios da contracepção juvenil: interseções entre gênero, sexualidade e saúde. *Cienc Saude Coletiva* 2009;14:1063-71.
- Peres SO, Heilborn ML. Cogitação e prática do aborto entre jovens em contexto de interdição legal: o avesso da gravidez na adolescência. *Cad Saude Publica* 2006;22:1411-20.