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# Correlation between sex education and prevention of pregnancy and sexually transmitted diseases

Correlación entre educación sexual y prevención del embarazo y enfermedades de transmisión sexual

Correlação entre educação sexual e prevenção de gravidez e de doenças sexualmente transmissíveis

## ABSTRACT

**Objective:** To verify the correlation between effective sex education and reduction of unwanted pregnancies and contagion of sexually transmitted diseases (STD). **Method:** Descriptive, quantitative, survey, exploratory study. Sample of 356 literate women aged 18 years or over. Data collected by physical or virtual questionnaire in 2019. Exploratory and comparative data analysis between groups. **Results:** No significant relationship between exposure to sexual education and decreased unwanted pregnancies and STD prevention. **Conclusion:** The study made it possible to understand how the discussion about sex education is presented to women and impacts on their personal choices. A shallow or non-questioning approach does not prevent unwanted pregnancies or STD reduction, as this relates to behavioral issues. It is of utmost importance that knowledge is as a tool for emancipation, being the conscious and power choices of the woman herself in order to allow the questioning of imposed standards.

**DESCRIPTORS:** Sex education; Reproductive rights; Sexual Health; Health behavior; Abortion.

## RESUMEN

**Objetivo:** Verificar la correlación entre educación sexual efectiva y reducción de embarazos no deseados y contagio de enfermedades de transmisión sexual (ETS). **Método:** Estudio descriptivo, cuantitativo, encuesta, exploratorio. Muestra de 356 mujeres alfabetizadas de 18 años o más. Datos recopilados mediante cuestionario físico o virtual en 2019. Análisis de datos exploratorio y comparativo entre grupos. **Resultados:** No hubo una relación significativa entre la exposición a la educación sexual y la disminución de embarazos no deseados y la prevención de ETS. **Conclusión:** El estudio permitió comprender cómo se presenta a las mujeres la discusión sobre educación sexual y cómo impacta en sus elecciones personales. Un enfoque superficial o sin cuestionamientos no evita los embarazos no deseados o la reducción de las ETS, ya que esto se relaciona con problemas de comportamiento. Es de suma importancia que el conocimiento sea como herramienta de emancipación, siendo la elección consciente y de poder de la propia mujer para permitir el cuestionamiento de los estándares impuestos.

**DESCRIPTORES:** Educación sexual; Derechos sexuales y reproductivos; Salud Sexual; Conductas relacionadas con la salud; Aborto.

## RESUMO

**Objetivo:** Verificar correlação entre educação sexual efetiva e diminuição da gravidez indesejada e contágio de doenças sexualmente transmissíveis (DST). **Método:** Estudo descritivo, quantitativo, levantamento, exploratório. Amostra de 356 mulheres, alfabetizadas, com idade igual ou superior a 18 anos. Dados coletados por questionário físico ou virtual em 2019. Análise exploratória dos dados e comparativa entre grupos. **Resultados:** Sem relação significante entre exposição dos assuntos sobre educação sexual e diminuição de gravidez indesejada e prevenção de DST. **Conclusão:** O estudo possibilitou entender como a discussão sobre educação sexual é apresentada às mulheres e impacta em suas escolhas pessoais. Uma abordagem rasa ou não questionadora não impede a gravidez indesejada ou redução de DST, dado que isso relaciona-se com questões comportamentais. É de suma importância que o conhecimento esteja como uma ferramenta de emancipação, sendo as escolhas conscientes e de poder da própria mulher a fim de permitir o questionamento de padrões impostos.

**DESCRIPTORIOS:** Educação sexual; Direitos sexuais e reprodutivos; Saúde Sexual; Comportamentos relacionados com a saúde; Aborto.

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## INTRODUCTION

The topic of sexuality is addressed in Brazil in elementary and high schools involving the general aspects of the anatomy of the reproductive system, the transformations of the body at puberty and guidance on the use of condoms and contraceptive methods. However, the literature emphasizes how urgent it is to discuss sex education in a broader way, that is, fleeing its teaching as a synonym only for sexual intercourse. Neglecting, for example, the imbalance of power between genders and the understanding of sexuality as an inherent part of the development of the individual's personality.<sup>1</sup>

Evidence of the need to change conduct is given<sup>2</sup> who demonstrate the greater expressiveness of the number of early pregnancies in adolescents who have not talked to their partner about the use of contraceptives when compared to adolescents who have had this conversation.

This demonstrates how ineffective information alone can be when it is not accompanied by an attempt to create negotiation skills or even an attempt to reduce gender asymmetries. This gen-

der imbalance is also observed when the themes of masturbation, virginity or sexual initiation are addressed. Men and women have<sup>3</sup> different behaviors and values in relation to such subjects, reflecting the socially constructed gender roles. Thus, it is essential that teaching on the topic of sexuality takes on existing gender differences and seeks, in fact, to reduce them, by approaching the sexual act, not only as a reproductive issue, but also in a way that values autonomy and self-knowledge.

In this view, a quality sexual education is one that seeks to place the student as the subject of their own actions, understanding that thus, boys and girls are equally committed to their bodies and to the bodies of others. The quality of sex education is also affected when the space for discussion becomes a space for repression, so the teachings on sexuality must involve not only the school, but also the family, since the absence of dialogue with parents is an inhibiting factor so that knowledge and information can be used in favor of promoting a healthy sex life.<sup>4</sup>

Thus, in a scenario with data<sup>5</sup> that reveals an increase of about 400% of the

reported cases of HIV and a fertility rate<sup>6</sup> of 68,4 live births for every thousand girls between 15 and 19 years of age in Brazil in a decade, we can see the social relevance that a quality sexual education has. It is in this context that this study seeks to provide correlations between different pillars of sex education: what was taught, who taught, how comprehensive it was, whether it was sufficient and how it had an effect on the planning of women's sexual life, so many in terms of family planning, as well as in self-knowledge for the development of autonomy.

Thus, the general objective of the research is to verify whether there is a correlation between effective sex education and the reduction of unwanted pregnancies and the contagion of sexually transmitted diseases in women in Brazil. In particular, to analyze the relationship between quality sex education and knowledge about sexuality, reproduction, abortion, diseases, autonomy and self-knowledge.

## METHOD

Descriptive study with a quantitative approach and applied nature. The me-

thodological procedures adopted in this work refer to a survey with participants for exploratory analysis of the data and comparative analysis according to the quality of sex education.

The information for this study was collected between July and August 2020, through questionnaires delivered to the study population, via online, through Google Forms, and physicians. The physical procedures were delivered to health care areas of the FAMERP-Funfarme Complex in São José do Rio Preto, and the online ones were disseminated through digital platforms, such as Facebook and WhatsApp, mainly in groups aimed only at women.

The study was carried out with the female population, literate, aged 18 years or over, without other specificities, who volunteered to answer the questionnaire, whether online or physical. Males and people of any gender under 18 and/ or illiterate were excluded. This study was previously approved by the Human Research Ethics Committee of the Faculty of Medicine of São José do Rio Preto (FAMERP), CAAE 12388419.4.0000.5415 and opinion No. 3.379.896/ 2019.

Thus, the study sample was composed of 356 women and for its characterization the sociodemographic profile was collected, including information such as marital status, age, state, city, color, income, education and sexual orientation.

To assess the quality of sexual education in the sample, a questionnaire with 4 questions was conducted. The first question sought to find those who had some kind of sex education, so that those who did not have to answer questions about it unnecessarily. The other three questions were specific to those that pointed out in the first question that they had some sexual education, and the questions sought to understand about: who was the educator, what were the subjects portrayed and what are the references of the student on the subject.

In relation to who the educator was, the responses were separated into par-

ticipants who had classes and the like with the theme "sex education" only with trained people or only with untrained people or participants who mixed their learning between the two. Qualified people were considered: health professionals, school and books; untrained people were considered: relatives, friends, parents, companions, media and religious environments.

As for the content covered in her sex education lessons, options were provided: reproductive system, contraceptive methods, sexually transmitted diseases, hygiene, puberty and body changes, pregnancy, virginity, relationships, sexual and gender orientation, masturbation, abortion, feminism, sexual freedom, recognition of sexual abuse, pornographic industry, respect for the body of others and gender roles. The participant could check more than one option. Each demarcated option was considered as a point and the more points the participant added, the broader the approach in his sex education was, therefore, of higher quality. As for personal references on the subject of sexuality, the questionnaire gave some options and the participant could mark more than one: mother, father, some celebrity, some relative, some friend, partner or partner, some teacher and some health professional. The participant could also add other options. The references were also separated into trained and unskilled people. Only teachers and health professionals were considered people trained in the subject in question.

Following the sexual education approach, they were asked if the participant had already started her sex life and if she had already contracted a sexually transmitted disease (STD). For those who have already started their sexual life, the questionnaire asked questions about which contraceptive methods the participants used. The participant could choose more than one option and there were the options: none, female condom, male condom, contraceptive (oral, injection, patch, etc ...), intrauterine de-

vice (IUD), vaginal ring, withdrawal, "tabelinha", tubal ligation and others, to which any other option not previously contemplated could be added. These contraceptive methods were divided into ineffective methods (withdrawal, tabelinha), methods that protect only from pregnancy (contraceptive drugs, vaginal ring, IUD, sterilization) and methods that protect from pregnancy and STDs (male condoms, female condoms).

Then it was asked whether the participant had already become pregnant, with options that also demonstrated her desire for the pregnancy in question, having to classify it as desired, unwanted or indifferent. The last question of the session involved the participants answering whether they had knowledge of someone who has already induced an abortion.

For those who responded earlier that they have already contracted an STD, it was asked whether the person was aware that it was possible to contract the disease through sex (anal, vaginal or oral). Then, it was asked why the person believed they had contracted an STD, including the options: I did not know that I could contract a disease due to unprotected sex, I was unable to negotiate condom use with my partner, I did not use a condom of my own choice, condom failed, did not know that my contraceptive method did not prevent STDs, was not in a position to decide on condom use, I had no choice (abuse or unconsciousness), they removed the condom without my consent, had a steady partner, only protected me from pregnancy and not STDs, I trusted my partner and "others", in which the participant could add any alternative that was not previously contemplated.

These options were divided into categories that involved lack of knowledge (I did not know that my contraceptive method did not prevent STDs, I did not know that I could contract a disease due to unprotected sex), lack of autonomy (I was unable to negotiate condom use

with my partner, no I was in a position to decide on condom use, I had no choice, they removed the condom without my consent), method failure, choice (I had a steady partner, trusted my partner) and others. Finally, the participant's opinion was asked about her sex education on the topic of STDs. The options were "enough, but could improve", "enough, with nothing to add" or "insufficient".

Specific questions related to pregnancy were asked of participants who previously said they had become pregnant. The first question was at what age the participant would have become pregnant, with the options "under 16 years old", "between 17 and 25 years old", "between 26 and 35 years old" and "over 36 years old". Then it was asked how many children the participants currently have. The reasons alleged by the participants for their pregnancy were divided between desired choice (free will), unwanted

choice (I did not use a condom out of my own choice and became pregnant unexpectedly, impulsiveness, desire to live intensely, indifference in relation to condom use), failure in the method contraceptive, lack of autonomy (difficulty negotiating the use of contraceptives with the partner, abuse, family will, building a social image, obligation, negotiation, partner removed the condom without my consent, fear of losing the partner) and lack of knowledge.

It was also asked if the participants had already induced an abortion and if so, by which method, including options for drugs, surgical methods, insertion of foreign objects and others.

The collected data were registered using spreadsheets in Excel, imported into the software IBM-SPSS Statistics version 27 (IBM Corporation, NY, USA) for exploratory analysis of the data and comparative analysis between groups.

The exploratory analysis of the data included descriptive statistics, mean, median, standard deviation, minimum and maximum values for numerical variables and number and proportion for categorical variables. For the analysis of the behavior of continuous variables, descriptive statistics, histogram and boxplot graphs and the specific test for the theoretical assumption of Kolmogorov-Smirnov normality were considered.<sup>7</sup> The comparison between two groups was performed using the Mann-Whitney test between three or more groups using the Kruskal-Wallis test; Correlation analysis between two numerical or ordinal variables was performed using Spearman's correlation coefficient.<sup>7-9</sup> Statistical analysis was performed using the IBM-SPSS Statistics software version 27 (IBM Corporation, NY, USA). All tests were two-tailed and P values <0,05 were considered significant.

## RESULTS

Among the 356 participants included in the study, we can see in Table 1 that the sample was composed predominantly of young people, since the median was 22 years old, that is, half of the research participants were up to 22 years old. With the 75th percentile of 25 years, it is concluded that only 25% of the participants showed age above 25 years.

Table 1 also shows other data regarding the demographic profile of women who responded to the study, taking into account their marital status, ethnicity, education and monthly income. The majority declared themselves single, white and with incomplete higher education.

Regarding the gender identity and sexuality of the participants, a large part (86,8%) declared themselves cisgender and another 13,2% said they did not know what gender identity means. No women who responded to the survey declared themselves to be transgender. In addition, almost ¾ of the participants

Table 1. Sociodemographic profile of the 356 participants included in the study taking into account their marital status, ethnicity, education and monthly income, Brazil, 2019.

AGE, YEARS	22 (18 – 70)
<b>Marital Status, n (%)</b>	
Single	290 (81,5)
Married	50 (14,0)
Divorced	4 (1,1)
Other	12 (3,4)
<b>Ethnicity, n (%)</b>	
White	290 (81,5)
Not white	66 (18,5)
<b>Education, n (%)</b>	
Incomplete elementary school	2 (0,6)
Incomplete high-school	2 (0,6)
Complete high-school	59 (16,6)
Incomplete higher education	196 (55,1)
Complete higher education	61 (17,1)
Postgraduate studies	36 (10,1)
<b>Monthly income, n (%)</b>	
Up to 5 minimum wages	98 (27,5)
From 5 to 10 minimum wages	132 (37,1)
More than 10 minimum wages	126 (35,4)

Table 2. Data obtained on sex education of the 356 study participants, Brazil, 2019.

HAVE YOU EVER HAD A SEX EDUCATION CLASS/ LECTURE/ COURSE/ CONVERSATION? N (%)	
No	44 (12,4)
Yes	312 (87,6)
Where/ from whom did you learn about sex education? n (%)	
Only with trained people	27 (8,7)
Only with untrained people	21 (6,7)
Both with trained and untrained people	264 (84,6)
Who is (are) your reference (s) on the subject of sexuality? n (%)	
None	105 (33,6)
Only with trained people	36 (11,9)
Only with untrained people	101 (32,1)
Both with trained and untrained people	70 (22,4)

Table 3. Categorical variables in classes and situations about the participants' sexual education, Brazil 2019.

MARKED THE SUBJECT		
	Não n (%)	Sim n (%)
Subjects portrayed		
Parts of the reproductive system	65 (18,3)	290 (81,7)
Contraceptive methods	45 (12,9)	303 (87,1)
Sexually transmitted diseases	50 (14,1)	304 (85,9)
Hygiene	134 (37,7)	221 (62,3)
Puberty and bodily changes	94 (26,5)	261 (73,5)
Pregnancy	70 (19,7)	285 (80,3)
Virginitiy	154 (43,9)	197 (56,1)
Relationships	213 (60,0)	142 (40,0)
Sexual orientation and gender	243 (68,3)	113 (31,7)
Masturbation	262 (73,6)	94 (26,4)
Abortion	230 (64,6)	126 (35,4)
Feminism and sexual freedom	254 (71,3)	102 (28,7)
Recognition of sexual abuse	244 (68,5)	112 (31,5)
Pornographic Industry	288 (80,9)	68 (19,1)
Respect for other people's body	242 (68,0)	114 (32,0)
Gender roles	260 (73,0)	96 (27,0)

Table 4. Total sum of points of the study participants for the subjects covered in sex education, Brazil, 2019.

TOTAL SUM	N	%
0	37	10,4
1	11	3,1
2	3	0,8
3	5	1,4

declared themselves to be heterosexual, 22% declared to be bisexual and 3,4% homosexual.

Regarding the origin of the interviewees, 12 different states were mentioned, with a predominance of participants from the state of São Paulo (88,8%), followed by the state of Minas Gerais (3,4%), Rio de Janeiro (2,0%), Rio Grande do Sul (1,7%), Paraná (1,4%), Federal District (0,8%), Ceará (0,6%), and Paraíba, Pará, Mato Grosso do Sul, Bahia and Alagoas, with 0,3%.

As for the variables related to sex education, we can see in Table 2 that 312 (87,6%) women reported having already taken a class or similar about sex education. Among these, 264 (84,6%) participants were guided by both trained and untrained people to teach on the subject. Another 21 (6,7%) learned about sex education only with untrained people, while 27 (8,7%) only with trained people, as shown in the table below.

In the case of references on the subject of sexuality, Table 2 shows that 105 (33,6%) participants replied that they did not have references and 101 (32,1%) responded that they had references only in people who were not trained in the subject. Another 70 (22,4%) participants reported having references in both trained and untrained people.

To assess the scope of the sexual education of the participants, Table 3 contains the categorical variables described in percentages related to the subjects covered in sex education.

The total sum of points of subjects covered, shown in Table 4, varies on a scale from 0 to 16 points, with 0 representing no sex education and 16, a very comprehensive sex education. The average number of points covered was 7,94, with a standard deviation of 4,70. The median was 8 points, with asymmetry 0.06 (Standard Error 0,129) and kurtosis -0,751 (Standard Error 0,258).

There was a significant difference in the score of sex education according to gender identity ( $p=0,004$ ) and sexual orientation ( $p=0,016$ ). In gender

4	16	4,5
5	33	9,3
6	37	10,4
7	31	8,7
8	37	10,4
9	24	6,7
10	18	5,1
11	17	4,8
12	17	4,8
13	15	4,2
14	11	3,1
15	8	2,2
16	36	10,1

identity, cisgender women scored higher, that is, they were exposed to more sexual education issues than women who reported not knowing what gender identity means. In sexual orientation, it was identified that bisexuals had greater exposure to sexual education issues than heterosexuals, as they obtained higher scores.

There was no significant difference in sex education scores according to marital status and color. When Spearman correlation was made for age, education and family income, although the correlations between age ( $p=0,06$  and  $r=-0,146$ ) and education ( $p=0,014$  and  $r=-0,130$ ) reached  $p<0,05$ , the coefficient of  $r$  is very small ( $r<|0,25|$ ) and considered as the absence of correlation, therefore there was no correlation between age, education and family income with the score in sex education.

In addition, it was observed that those who claimed to have learned about sex education from both trained and untrained people had a higher score than those women who claimed to have learned only from trained people. Likewise, these women were also more exposed to sex education issues than those who claimed to have learned only from untrained people ( $p=0,001$ ).

According to Table 5, the group of women who claimed to have “no” reference on the subject of sexuality scored lower on the quality of sex education, than the other women, both those who claimed to have, as a reference, trained people, untrained or both.

Still observing Table 5, the group of women who have as reference both trained and untrained people, also obtained a significantly higher score in the quality of sex education than those who have only trained people, or only untrained people, as references.

Almost all of the participants (96,1%) stated that they had already started their sexual life. Participants who have already started their sex life did not score more or less than those who have not yet had sex.

Table 5. Peer comparison for the variable “Who is (are) your reference(s) on the subject of sexuality?”.Brazil, 2019.

WHO IS (ARE) YOUR REFERENCE(S) ON THE SUBJECT OF SEXUALITY?	P VALUE
None	
x	< 0,001
Only trained people	
None	
x	< 0,001
Only untrained people	
None	
x	< 0,001
Both people trained and untrained people	
Only trained people	
x	0,430
Only untrained people	
Only trained people	
x	0,008
Both people trained and untrained people	
Only untrained people	
x	0,009
Both people trained and untrained people	

Table 6. Data collected from participants on issues of pregnancy and abortion.

HAVE YOU EVER GOT PREGNANT?; N (%). BRAZIL, 2019.	
No	309 (86,8)
Yes, but she didn't want to get pregnant	10 (2,8)
Yes, but the pregnancy was indifferent	3 (0,8)
Yes, but she wanted to get pregnant	34 (9,6)
Under 16 y/o	2 (4,3)

Between 17 and 25 y/o	23 (48,9)
Between 26 and 35 y/o	19 (40,4)
Over 36 years old	3 (6,4)
Do you know someone who has already induced an abortion?	
Yes	185 (52)
No	171 (48)
Have you ever induced an abortion?	
No	352 (98,9)
Yes, with surgical methods	3 (0,8)
Yes, with medicine	1 (0,3)

Among those who have already started their sexual life, 41 (11,5%) have already contracted an STD. The 41 participants who had an STD revealed that they were aware of the possibility of contracting diseases in unprotected sex. Despite this knowledge, 11 (26,8%) participants believe that their sexual education on the subject was insufficient, 10 (24,5%) believe that their sexual education on the subject was sufficient, with nothing to add, and 20 (48,7%) believe that their sex education was sufficient, but could improve.

Among the reasons alleged by the participants for having contracted an STD, 33 marked reasons associated with the choice, 7 related to the lack of autonomy and 3 to the failure of the method. No significance was found ( $p < 0,05$ ) between the sex education score and the variables related to STDs.

Regarding the use of contraceptive methods, 55 (15,5%) women claim not to use any method or have not started their sexual life yet, 77 (21,6%) use ineffective methods, 217 (60,9%) use methods that protect only from pregnancy and 220 (61,8%) use methods that protect from pregnancy and STDs. Of the women who responded, 47 (13,2%) say they have already become pregnant, whether the pregnancy is desired or not.

Among women who have already become pregnant, 19 (40,4%) believe that their sex education regarding contraceptive methods was sufficient, with nothing to add, 18 (38,4%) believe that it

was sufficient, but it could improve and 10 (21,2%) believe it was insufficient. As for the autonomy of these women in relation to their partners, 33 (70,2%) believe that their decision-making power was sufficient to have control over the use of contraceptives. Another 17 (29,8%) answered "no" or "maybe".

Regarding the reason for the pregnancy, 31 (65,9%) said it was a desired choice, 9 (19,1%), an unwanted choice, 13 (27,7%) due to failure in the contraceptive method and 3 (6,4%) due to lack of autonomy.

There was no significance regarding sex education scores and abortion. In relation to pregnancy compared to the quality of sex education, the significant difference ( $p = 0,005$ ) was found between those who did not become pregnant and those who became pregnant, but wanted to become pregnant. The highest score for the quality of sex education was obtained by women who said they had never become pregnant.

## DISCUSSION

There was no significance regarding sex education scores and abortion. In relation to pregnancy compared to the quality of sex education, the significant difference ( $p = 0,005$ ) was found between those who did not become pregnant and those who became pregnant, but wanted to become pregnant. The highest score for the quality of sex education was obtained by women who said they had never become pregnant.

When comparing the exposure of themes among the participants, it was noted that bisexual women had a greater repertoire than heterosexual and homosexual women. This differentiation can be seen based on the exploration of the sexual theme detached from the gender character, but attributed to multisensory sexual practices regardless of who are the carriers.<sup>10</sup> In this sense, the sexual practices attributed to a more diverse relationship behavior were beneficial to the exposure of more approaches, therefore, greater freedom and self-knowledge.

When analyzing the number of sexual education subjects portrayed and their frequencies, it is evident that the subjects that touch only reproductive and physiological aspects (contraceptive methods, STDs, parts of the reproductive system, pregnancy and puberty) are the most exposed to women, while problematic and intimate issues related to female pleasure and freedom (gender roles, feminism and sexual freedom, masturbation, sexual orientation and gender, respect for the body of others and pornography industry) are the least exposed.

These results, by showing that the most explored subjects are related to a reproductive and maternal logic attributed to women, strengthen the psychologist Valeska Zanella's thinking about gender devices. In her book, "Mental Health, Gender and Devices", the psychologist and thinker portrays the control of female bodies, which places women subserviently to the pleasures of masculinity.<sup>11</sup> In this context, the female body is thought only by a reproductive logic, depriving women of their freedom, pleasure and autonomy.

It is questioned, then, the inattention in relation to the issues that value the autonomy of women and encourage the breaking of the patriarchal logic of empowerment over the body and female pleasure.

Still in relation to the total scores obtained on sex education, women who did not know what gender identity was

scored lower, which confirms the fact that they had a less comprehensive sex education, with less exposure to the subjects that position and conceptualize female sexuality.

When discussing the educator, a higher score was significant among the group of those who had trained and not trained people to approach the subjects than those who had only trained professionals and means. This leads to the questioning that the theoretically enabled spaces are not providing the same comprehensive knowledge that external contact offers, even if disabled, demonstrating that there is a limitation of the discussion and depth about sexuality in the environments suitable for this.<sup>12</sup>

In addition, this result strengthens the idea that all environments, especially the family, can and should collaborate in building a healthy discussion about sexual health, avoiding that they are, in fact, an environment of repression. The involvement of a diversity of educating agents proved to be fundamental for the understanding of sexuality, since women guided by both trained and untrained agents showed higher scores than women taught by only one of these types of agents.

When the women interviewed were asked if they had already contracted a sexually transmitted disease (STD), only 11,5% reported having already contracted and all of them knew that there was a risk of contracting diseases through anal, vaginal or oral sex. In the analysis of the reason why these women contracted, there is a behavioral prevalence of choice, followed by a lack of autonomy.

This behavior is more attributed to cultural and social determinants within the health-disease process of these women than the lack of access to information, since 100% of the women who responded to the survey revealed to have knowledge about the possibility of STD contraction through sex. In addition, the second major topic mentioned is linked to the lack of autonomy, again indicating

the subjection of women,<sup>13</sup> as in cases of abuse and exploitation of partners. This data strengthens the idea that effective sex education is comprehensive sex education,<sup>14</sup> which takes into account gender asymmetries and seeks to develop negotiation skills, avoiding cases like those of the women in this study, who had the information but did not have sufficient autonomy to use it.

**The involvement of a diversity of educating agents proved to be fundamental for the understanding of sexuality, since women guided by both trained and untrained agents showed higher scores than women taught by only one of these types of agents.**

When analyzing the contraceptive methods used by women who already have an active sex life, there is a greater application of methods that mainly prevent pregnancy, while methods that together protect STDs are less chosen. This correlates with data that revealed that women who never became pregnant have greater exposure to sex education issues.

Another fact that reinforces the greater concern in relation to the protection of unwanted pregnancies than the contraction of STDs is the fact that women who have already contracted STDs justify what happened based on factors linked to their own choice by not using condoms.

It is observed, then, that the preservation regarding the contraction of diseases has less relevance for the women participating in this study and this goes against the fact that there is greater exposure of the participants to issues related to family planning. This can be attributed to the search for the postponement of children within a routine of women who are inserted in the gym and in the job market.

In the topic on pregnancy, the sample showed significance between women who never got pregnant and women who got pregnant and wanted to get pregnant, revealing greater exposure of the subjects (higher score) for those who have no child (ren). Thus, the power of interference in autonomous family planning is questioned when women are more exposed to issues, which can alter the desire for motherhood, going against the norms attributed to women. This corroborates with data on the teachings of sexuality aimed at reproduction, which, when they start to explore non-reproductive subjects, can interfere with the desire to have children.<sup>15</sup>

When discussing the issue of abortion among the samples, more than half replied that they knew someone who had already induced abortion, compared to asking the sample if they had already induced abortion, a small percentage reported the procedure. In view of this,



a possible distance between the data is perceived. This difference may be linked to distrust of data confidentiality, fear of judgments about the answers<sup>16</sup>, addiction of references of the participants or even contradiction between the number of women who actually induced abortion, since currently in Brazil the procedure is illegal for most cases.<sup>17</sup>

Thus, it is observed that the discussion of the interference of sexual education received by women in their choices and behaviors regarding sexuality are based on factors that transcend access to information. These factors are linked to a social model of behavior subjugated to patriarchy and which can

be further explored in a questioning perspective for women's transgression and empowerment.

## CONCLUSION

Considering that there was no significant correlation of data between exposure to sex education issues with STD prevention and pregnancy, it is concluded that there is a strong behavioral factor that interferes with women's choices. This factor is subject to gender asymmetry, in which the cultural functioning attributed to social and sexual values linked to male pleasure is paramount. Thus, as demonstrated,

exposure to sexual education issues is mostly physiological, covering topics on anatomy, reproduction and diseases, while the other questions of a questioning nature are neglected by both trained and disabled agents. In addition, it questions the power of knowledge when detached from dialogue, in which it cannot be articulated within the process of raising awareness for behavior change as idealized for a liberating education and discussed by Paulo Freire. Therefore, it is not enough that the subjects are only exposed, or even hidden, to the teachings about sex education if it is not used as a mechanism for emancipation. ■

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