Sexual behavior of students of medicine of Brazil: a multicenter study

Comportamento sexual de estudantes de medicina do Brasil: um estudo multicêntrico

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ABSTRACT

Introduction: Sexuality involves psychological, emotional and cultural factors. **Objective:** Identify sexual habits of Brazilian medical students. **Methods:** A multicenter cross-sectional study was conducted and an electronic questionnaire was used. **Results:** They were interviewed 459 university students. About their sexarche, 76.4% had already had it, 25.2% before 19 years old. From those who have sexual life, 60.0% lost their virginity with their boyfriend or girlfriend, and 54.9% used a condom in this first intercourse; those who did not use it said they trusted in their partners. The median of sexual partners in lifetime was 2, and 12.4% have ever had homosexual intercourses. About alcohol and drugs, 6.2% generally use them before having sex and 18.9% have not used condom because of these substances. **Conclusion:** Even though the sample have more knowledge about vulnerability to sexually transmitted diseases, they show risk factors for having it.

Keywords: sexuality; risk factors; sexually transmitted diseases; sexual behavior; Acquired Immunodeficiency Syndrome.

RESUMO

Introdução: A sexualidade abrange fatores psicológicos, emocionais e culturais. **Objetivo:** Determinar o comportamento sexual de estudantes de Medicina do Brasil. **Métodos:** Estudo transversal multicêntrico com coleta de dados por meio de questionário eletrônico. **Resultados:** Foram entrevistados 459 universitários. Destes, 76,4% já tiveram a sexarca, tendo ocorrido em 25,2% dos indivíduos com idade ≥19 anos. Entre os sexualmente ativos, 60,0% perderam a virgindade com o(a) namorado(a), e 54,9% utilizaram preservativo nesta primeira relação sexual; os que não o utilizaram atribuíram o fato à confiança no parceiro. A mediana do número de parceiros sexuais na vida foi 2, e 12,4% já tiveram relações homossexuais. Com relação ao consumo de álcool/drogas, 6,2% costumam utilizá-los antes do sexo e 18,9% já deixaram de utilizar preservativo por esse motivo. **Conclusão**: Apesar de a amostra ter maior conhecimento sobre vulnerabilidade a doenças sexualmente transmissíveis, apresentou fatores de risco para a ocorrência destas.

Palavras-chave: sexualidade; fatores de risco; doenças sexualmente transmissíveis; comportamento sexual; Síndrome da Imunodeficiência Adquirida.

INTRODUCTION

Over the last 30 years, deep discussions about sexuality have been held, probably because of the emergence of epidemic Human Immunodeficiency Virus (HIV), followed by Acquired Immune Deficiency Syndrome (AIDS), which was quickly disseminated. The disease indicated the need to better understand sexuality and the factors associated with risky sexual behaviors[1-3]. Pursuing the same goal, the Department of Sexually Transmitted Diseases (STDs), AIDS and Viral Hepatitis of the Brazilian Ministry of Health holds, every three years, the Survey on Knowledge, Attitudes and Practices of the Brazilian Population (PCAP), which has shown an early beginning of sexual activity with a large number of partners, some of the same sex, especially among young people[4].

A study conducted on male university students in Rio de Janeiro, in 2009, showed that they often use a condom at their first intercourse, but its use is being overlooked in subsequent relationships[5]. The study also found that the more partners a person has throughout life, the smaller the adhesion to condom use, and the greater the chances of having contact with etiological agents of STDs[5].

In today's society, sexuality is present everywhere, physical appearance is used to identify a person's HIV seropositivity, and mainly university students are exposed to risky sexual behavior[6,7]. A qualitative study conducted by Guerriero has shown that men consider inappropriate for women to request their husbands to use condoms for STD prevention, which reveals their desire to dominate the sexual act and decide about whether or not there are any risks[8]. This attitude indicates that, 30 years after AIDS was discovered, there is still much misinformation about the disease and their transmission, with a clear concept that there is no risk group, but rather risky behaviors that predispose to infections[8].

This conception of the relationship between sex and risk is in line with studies which have shown a strong association between alcohol use and unprotected sex[9]. Alcohol consumption affects cognitive functions, and, thus, individuals are less able to protect themselves or make decisions about their safety in vulnerable situations. This is the reason why alcohol is considered a predisposing factor for contamination by STDs[9].

There are also studies that indicate the existence of gender inequality as a predisposing factor for unprotected sex. Women living in the patriarchal way of thinking have less access to information and are less prone to empower decision making about condom use[10].

OBJECTIVE

To investigate sexual behaviors of Brazilian medical students enrolled in different universities of the country, and compare our data with the findings of the PCAP study.

METHODS

This study was approved by the Research Ethics Committee of the *Universidade do Sul de Santa Catarina* (Unisul), under registration

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No. 562,109, on April 10th, 2014, in accordance with Resolution 466/2012 of the National Health Council, through *Plataforma Brasil*.

This is a multicenter cross-sectional study supported by the International Federation of Medical Students' Association of Brazil (IFMSA-Brazil), a non-governmental organization formed by medical students from more than 100 countries, and represented in 58 Brazilian universities across the five geographic regions of Brazil.

Electronic contact was made with medical students of the Brazilian universities members of IFMSA-Brazil, inviting them to participate in this study as the representatives of their respective institutions. A data-collection tool based on the PCAP questionnaire of the Ministry of Health was used. An adapted version of that questionnaire was provided for this study[4].

After this contact was established, the number of students of each institution was used to sample calculation. Not all universities interested followed the initial steps, which were performing ethical submission and providing a list of names of all the students. Finally, the sample consisted of individuals from 11 universities: *Faculdade de Medicina de Rio Preto* (FAMERP), *Universidade Estadual do Sudoeste da Bahia* (UESB), *Universidade Estadual do Piauí* (UESPI), *Universidade Federal do Ceará* (UFC) – Campi Sobral and Fortaleza, *Universidade Federal do Pará* (UFPA), *Universidade Federal de Roraima* (UFRR), *Universidade de Cuiabá* (UNIC), *Universidade Iguaçu* (UNIG), *Universidade Nove de Julho* (UNINOVE), *Universidade do Sul de Santa Catarina* – Campus Tubarão (Unisul-Tubarão) and *Universidade de São Paulo* (USP).

The sample size calculation was based on an unknown anticipated frequency (50.0%), an acceptable error of 5.0% and a confidence level of 95.0%. As a result, the final sample size should be composed by 367 subjects. Using proportional stratified random sampling, 6.0% of the students of each of the 11 universities would be necessary. Considering a margin of error, 10.0% of the students were sorted and invited to participated on the study.

To be included in this study, individuals should be aged 18 years old or older, regularly enrolled between the 1st and 12th semester in one of the 11 universities, and should have an e-mail account. Those who did not agree to participate or had not completed more than 20% of the questionnaire were excluded.

In each university, there was a medical student responsible for the study as a local coordinator. After the participants were drawn from the call list, the local coordinators invited them to take part in the study and asked them to sign the consent form. In the sequence, the questionnaire was e-mailed to each student to be anonymously completed using Google Docs Forms.

The electronic version of the PCAP questionnaire had 83 questions divided into 10 parts, as follows: personal identification, sexual initiation, sexual experiences, condom use, sexual behavior and practices, most recent sexual intercourse in the past 12 months, same-sex relationships, life experiences, HIV testing, and use of alcohol and drugs.

Seven independent attitudes were analyzed in order to address the Sexual Risk Behavior variable: early sexarche (<15 years old), lack of condom use at first sexual intercourse, casual partner at first sexual intercourse, lack of condom use in the most-recent sexual intercourse, same-sex practices over lifetime, failure to use a condom because of alcohol and drugs, and having more than 10 sexual partners over their lifetime.

The Open Source Epidemiologic Statistics for Public Health (OpenEpi) software, version 2.3.1, was used to calculate the sample size. The filled out questionnaires were stored in a Microsoft Excel 2007 database (Microsoft Corporation, Redmond, WA, USA). A statistical analysis was performed using the Statistical Product and Service Solutions™ software (SPSS for Windows v 20 Chicago, IL, USA).

Descriptive epidemiology was used to present the data. Qualitative variables were presented as frequencies and proportions, whereas quantitative variables were presented as measures of central tendency and dispersion. The χ^2 test was used in order to verify the association between variables, and the Student's t-test was used for mean comparison. In cases of non-normal distribution, the nonparametric Wilcoxon–Mann–Whitney U test was used to compare medians between two samples. The confidence level was set at 5%.

RESULTS

A total of 459 medical students returned the questionnaires. They were enrolled in one of the 11 Brazilian universities from 9 different states of the 5 regions nationwide. Of the respondents, 244 (53.2%) were women; 284 (61.9%) identified themselves as being white, 136 (29.6%) as brown, and the others as black or indigenous. The mean of age was 22.7 (±3.4), ranging from 18 to 37 years old. The predominant religion was Catholic (230, 50.1%), followed by Evangelical (53, 11.6%).

Table 1 presents factors related to the first sexual intercourse and the distribution of sexual behavior characteristics according to gender. The reasons most commonly mentioned for not having had sex yet were the lack of an appropriate sexual partner (24.6%) and the desire to remain a virgin until marriage (23.9%).

Table 1 – Gender differences of first sexual intercourse among Brazilian medical students (n=459).

	n (%)	Men n (%)	Women N (%)	p-value
Sexarche				
Yes	369 (80.4)	187(50.7)	182 (49.3)	0.001
No	90 (19.6)	28 (31.1)	62 (68.9)	
Age at first sexual intercourse (n=369)				
<15	50 (13.5)	42 (84.0)	8 (16.0)	< 0.001
>15	319 (86.5)	145 (45.5)	174 (54.5)	
First-time sexual partner (n=369)				
Casual	150 (40.6)	117 78.0)	33 (22.0)	< 0.001
Stable	219 (59.4)	70 (32.0)	149 (68.0)	
Sexual practices at first sexual intercourse (n=367)				
Only vaginal sex	193 (52.6)	73 (37.8)	120 (62.2)	<0.001
Only anal sex	4 (1.1)	2 (50.0)	2 (50.0)	
Only oral sex	56 (15.3)	36 (64.3)	20 (35.7)	
Vaginal and anal sex	1 (0.3)	1 (100.0)	0 (0.0)	
Vaginal and oral sex	96 (26.1)	59 (61.5)	37 (38.5)	
Oral and anal sex	13 (3.5)	13 (100.0)	0 (0.0)	
Vaginal, oral, and anal sex	4 (1.1)	2 (50.0)	2 (50.0)	

Table 2 shows information related to condom use among the sexually active participants.

Those who did not use a condom at the first time they engaged in sexual intercourse reported the following reasons:

- they trusted their sexual partner (26.8%);
- they did not have a condom readily available (18.9%); and
- they believed that their sex partner was also a virgin (18.2%).

Table 2 – Gender-related influence on condom use among Brazilian medical students (n=369).

Condom use	n (%)	Men n (%)	Women n (%)	p-value
At first sexual intercourse[a]				
Yes	261 (71.1)	127 (48.7)	134 (51.3)	0.294
No	106 (28.9)	59 (55.7)	47 (44.3)	
Reasons to use				
Prevent contraception	100 (38.7)	36 (36.0)	64 (64.0)	<0.001
Prevent STD	45 (17.4)	33 (73.3)	12 (26.7)	
Both	113 (43.9)	55 (48.7)	58 (51.3)	
Initiative to use				
Interviewee	44 (16.8)	32 (72.7)	12 (27.3)	0.001
Sexual partner	10 (3.9)	6 (60.0)	4 (40.0)	
Both	207 (79.3)	88 (42.5)	119 (57.5)	
Condom use at the last intercourse				
Yes	227 (71.3)	117 (51.5)	110 (48.5)	0.986
No	91 (28.7)	47 (51.6)	44 (48.4)	
Lack of condom use because of alcohol/drugs				
Yes	88 (24.5)	55 (62.5)	33 (37.5)	0.011
No	271 (75.5)	127 (46.9)	144 (53.1)	

[a]Vaginal, anal, and oral sex practices are included.

Table 3 – Gender differences in sexual risk behavior among Brazilian medical students (n=369).

	n (%)	Men n (%)	Women n (%)	p-value
Average number of sexual partners over lifetime	2.0	5.0	2.0	<0.001
Same-sex intercourse				
Yes	53 (14.4)	44 (83.0)	9 (17.0)	<0.001
No	316 (85.6)	143 (45.3)	173 (54.7)	
Alcohol/drug use during sex (n=367)				
Yes	242 (65.9)	130 (53.7)	112 (46.3)	0.105
No	125 (34.1)	56 (44.8)	69 (55.2)	
HIV screening (n=368)				
Yes	198 (53.8)	100 (50.5)	98 (49.5)	0.224
No	170 (46.2)	87 (51.2)	83 (48.8)	
Lubricant in anal sex (n=64)				
Yes	31 (48.4)	23 (74.2)	8 (25.8)	0.885
No	33 (51.6)	25 (75.8)	8 (24.2)	
Sexual assault[b] (n=377)				
Yes	68 (18.0)	32 (47.1)	36 (52.9)	0.643
No	309 (82.0)	155 (50.2)	154 (49.8)	

[b]Forced to have sex with or without penetration. Some participants who reported being a virgin mentioned that they were forced to engage in non-consensual sexual touching (n=8).

Among the sexually active participants, 46.1% stated they generally obtain condoms in drugstores and 14.8% in supermarkets.

Table 3 presents information about the attitudes towards sexual risk behaviors.

With regard to contraceptives, 68.3% of the interviewed subjects reported that they had used contraceptive methods other than condoms, 63.6% of them had used birth control pills, and 20.4% had used withdrawal to prevent pregnancy. Women (60.3%) were more likely than men (39.7%) to use contraceptive methods (p=0.010). In addition, 222 (48.4%) of the study's participants reported that they or their partner had taken the morning-after pill.

Figure 1 displays the distribution of the number of risky attitudes presented by the sexually active participants. No one reported all seven risky attitudes investigated in this study.

Table 4 shows a comparison between sexual risk behaviors and the socio-demographic characteristics of the study's participants.

DISCUSSION

To our knowledge, this is one of the first study to focus on sexual behavior of Brazilian medical students. These data are extremely important given that a number of health institutions worldwide are worried about the increased HIV transmission rates. Young people with high levels of education, such as medical students, also need screening for high-risk behavior related to sexual activity, given that they are not even close to be safe from STDs.

Early first sexual intercourse is described as a sexual risk behavior to the contraction of STDs. However, due to various social factors, it is hard to define what would be the ideal age to start having sex. The PCAP survey showed that 26.8% of the Brazilian population have sex before the age of 15, ranging from 36.9% among men to 17% among women[4]. In 2010, Shiferaw et al. investigated the sexual

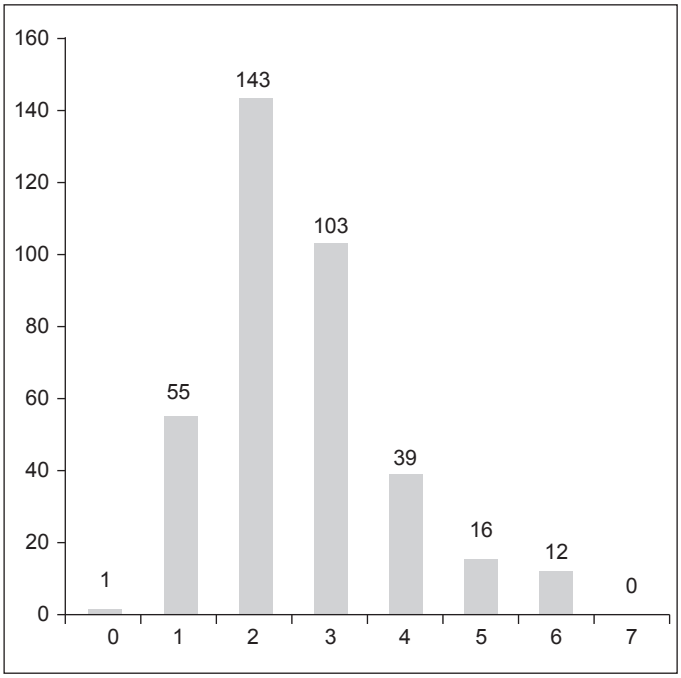

Figure 1 – Number of risk factors for the occurrence of an STD presented by the surveyed medical students (n=369).

behavior of 384 college health students in Ethiopia. They found that 52.5% of the respondents had already gone through their first sexual intercourse, and only 2.5% had done so under the age of 16 years old, 34.6% between 17 and 18 years old, and 62.9% at the age of 19 years old or older[11]. A study conducted among 409 women attending private universities in southern Brazil found that 84.6% had already had their first sexual intercourse. The average age of the first sexual intercourse was 17 years old, ranging between 11 and 24 years old[12].

A study conducted in Colombia among 397 young university students has shown that the average age at the first sexual intercourse was 16 years old[13]. In 2012, 259 teenagers aged between 12 and 19 years old who lived in a southern Brazilian city were inquired about their sexual behaviors. The mean age of sexarche was 14.2 (±1.7) years old, and vaginal penetration was the predominant modality (62.9%)[14]. Similar findings were reported by a study that has evaluated Chinese university students, which indicated that vaginal sex was the most common practice (91.4%)[15]. A study conducted in Mozambique analyzed the sexual behavior of men who have sex with men, and indicated that 5.2% of the sample had their first sexual intercourse with another man before the age of 15[16].

Still, regarding the age of sexarche, this study shows university enrollment numbers similar to those of other countries. Nevertheless, there is indication of less early first sexual intercourse when compared to the Brazilian general population, given that 13.5% of the respondents had sex before 15 years of age. This fact may be explained by the education they receive from their families. The difference between men and women having sexarche before the age of 15 years remains 22.5 and 4.4%, respectively. This study revealed that, on average, 71.1% of the surveyed sample used condom at their first sexual intercourse (68.2% among men and 74.0% among women). The PCAP survey showed that 60.9% of the interviewed used a condom at their sexarche (63.8% among men and 57.6% among women)[4]. In 2011, Faé observed that younger individuals (*i.e.*, closer to their sexarche) used condom more frequently than the older ones[12].

The reasons for wearing condoms were based on both contraception and STD prevention. Women were more knowledgeable about contraception than men, when this was pointed out as the only option. Contrastingly, men were more knowledgeable about STD than women. Both, men and women had similar arguments to take more responsibility in preventing unwanted pregnancy and STD. Perhaps women are more likely to try to prevent an unintended pregnancy because they are the most affected ones in these cases.

A study conducted in China on 1,030 university students, of whom 510 were medical students, showed that some individuals had not yet had sex because of the fear of unwanted pregnancy (46.7%) and the risk of acquiring an STD (38.7%). However, men had higher fear of pregnancy (48.9%) than women (43.5%), which contradicts the findings of the current study[14].

Regarding the initiative of using a condom, in 79.3% of cases, the decision was shared by the couple involved in the sexual intercourse. However, it is noteworthy that 25.3% of men reported having had such an initiative, against only 8.9% of women who did it. This fact reflects a sexist attitude given that women tend to feel less comfortable in taking the initiative of demanding their partners to use condoms. In 2011, a study conducted at the *Universidade Federal da Paraíba*, Brazil, asked 1,131 state school students (aged 16 years old on average) if it was difficult to convince their partners to use condoms. Data showed that 82.0% of boys and 74.0% of girls disagreed with the statement (p=0.005), which indicates that girls have more difficulty than boys to negotiate safe sex[17]. Wells et al. found that 43.2% of male college students in Ethiopia carried a condom with them during the interview, whereas 31.4% of female students did that[18]. Contrastingly, men may be more exposed to unprotected sex because they generally have more sexual partners and casual sex over their lifetime than women, which is confirmed by this study and supported by the findings of Valencia and Canaval[12].

Condom use at the last sexual intercourse can be a good indicator of actual sexual attitudes of the study population. The PCAP survey has shown that 35.1% of the population used a condom the last time they had sex (40.2% men and 29.7% women)[4]. A multicenter study on 4,840 individuals enrolled in various courses of American universities found that 50.5% of those did not use a condom the last time they had sex (30.8% men and 69.2% women)[19]. Another study conducted in Ethiopia examined the adequacy of condom use by university students over the past six months, and found that 55.0% of men and 89.2% of women had insufficient or inadequate use of contraceptives[18]. In the same country, Shiferaw et al. indicated that 71.4% of students used a condom the last time they had sex (74.2%

Table 4 – Risky sexual behaviors according to socio-demographic characteristics (n=369).

	n (%)	PR (95% CI)	p-value	Adjusted PR[c] (95% CI)	p-value
Gender					
Female	182 (49.3)	0.79 (0.72-0.86)	< 0.001	0.79 (0.72-0.87)	< 0.001
Male	187 (50.7)	1.0		1.0	
University					
Public	237 (64.2)	1.10 (1.00-1.21)	0.051	1.13 (1.02-1.25)	0.017
Private	132 (35.8)	1.0		1.0	
Semester enrolled					
1–6	198(53.7)	0.92 (0.84-1.01)	0.093	0.90 (0.82-1.00)	0.052
7–12	171 (46.3)	1.0		1.0	
Religion					
Practitioner	249 (72.2)	0.95 (0.85-1.06)	0.373	1.05 (0.93-1.17)	0.461
No religion	96 (27.8)	1.0		1.0	
Age (years)	$\dot{x}$=23±3.5	1.00 (0.99-1.02)	0.747	0.99 (0.98-1.01)	0.278

[c]Adjusted for gender, type of university, semester enrolled, religion, and age. PR: prevalence ratio.

men and 49.0% women)[12]. These findings are consistent with those of the present study, which indicated high percentage of condom use at their last sexual encounter among the respondents (71.3%). It should be noted that, unlike findings in other studies, there were no significant gender-related differences for this variable in this study.

In 2012, a study conducted in Cyprus among 240 men who had sex with men investigated some risky sexual behaviors. It was found that 59.5% of respondents reported having used alcohol before or during sex, and 39.5% reported never having done it[20]. In Uganda, 1,954 university students answered a questionnaire on sexual behavior in which it was observed that 27.1% of them used alcohol the last time they had sex, ranging from 23.2% among women and 29.3% among men[21]. A study conducted in the United States has revealed that 18.0% of the population had used alcohol or other drugs before their last sexual intercourse (38.2% of them were men, 61.8% women) [17]. In this study, 25.0% of respondents admitted not using condoms during sex because they were under the influence of alcohol or other drugs, which is the most common behavior among men.

Regarding the number of lifetime sexual partners, it is difficult to establish a cutoff point to determine what is acceptable behavior and what is promiscuity. In the present study, a significant variation in numbers was found, and, therefore, the median was taken for data analysis. Among the Brazilian population, 64.0% (74.9% of them men, 53.4% women) had more than one partner over their lifetime, and 25.3% (40.1% of them men, 10.9% women) had more than 10[4]. These figures confirm this study, which found that the median number of sexual partners was 2 among women, and up to 5 among men.

In our sample, 79.5% respondents reported having had more than 1 partner over their lifetime, while 19.6% of them had more than 10 sexual partners. Therefore, having more than 1 but less than 10 sexual partners is a prevalent behavior among medical students. Choudhry et al. asked about the multiplicity of sexual partners within the past 12 months. Of the sexually active respondents, 66.4% of them reported having had between 0 and 1 sexual partner at that time interval (77.5% of them women, 58.5% men), and 33.6% had 2 or more (22.4% of them women, 41.3% men)[21]. In Ethiopia, the average number of sexual partners over lifetime was 2.1±1.9[18]. A study conducted in the United States among 292 students from two Medical Schools found that 35.39% of non-virgin respondents had more than 1 sexual partner in the past 12 months before the survey[22].

Sexual intercourse with people of the same sex, especially among men, has been identified as a risk factor for HIV infection[20]. The PCAP survey found that 7.6% of the Brazilian population reported having had some kind of intercourse with people of the same sex, ranging from 10.0% among men to 5.2% among women[4]. The overall percentage of same-sex relationship in the study population was 14.4% (12.0% among men, 2.4% among women), which is above the national average (7.6%) for homosexual relations.

Adherence to HIV screening was similar between the surveyed sample (53.8%) and the general population, given that 53.8% of them underwent diagnostic tests at some point in their lives, with no significant gender-related differences, whereas 36.5% of the Brazilian population had performed HIV testing (27.2% of them men, 45.6% women)[4].

Although sexual abuse is an atrocity, Palusci and Palusci question whether forced sex can be considered a risky sexual behavior[23]. HIV and other STDs infection through forced sexual relations is low, probably because of the antiretroviral efficacy, except on kids, given that they are more likely to have mucosal lacerations. Sexual assault is alarmingly common across many cultures, and its presence ranges between 20.0 and 60.0% in the American population[23].

According to Zhang et al., 4.6% of the population have already been victims of sexual assault, and 0.9% have had sex under pressure from their partners. Forced sexual relationships were more common among women (6.1%) than among men (3.9%)[15]. In the current study, 18.0% of the participants reported being a victim of sexual abuse, with no significant gender-related differences, a fact that differs from most studies, which show that sexual violence against women is more common than against men[24,25].

Regarding the use of contraceptive methods other than condoms, a prominent aspect is the high frequency of withdrawal, which is overcome only by birth control pills. Withdrawal is a fairly frequent sexual risk behavior among the study population, given that the interruption of intercourse does not protect against sexually transmitted infections[26].

Multivariate analysis of sexual risk behavior among the studied population showed that male individuals enrolled in public institutions are more exposed to STD infection than their counterparts. There were no significant differences in other variables, such as enrollment semester, religion, and age.

One of the limitations to this study was the fact that it used a questionnaire validated by the Brazilian Ministry of Health for the PCAP survey, which prevented comparisons between different studies. Another limitation is the small number of invited universities which decided to take part in the study. Additionally, an inherent fact to every research involving sexuality is that there is the desire of achieving a social sex status, which means that the interviewees may think there is an appropriate answer to be given. Nonetheless, this is an original study and there is scarce literature on this matter in Brazil. The results should prompt additional debates over the issue.

CONCLUSION

Brazilian medical students have a distinct behavior to that observed among other groups. Few individuals have early first sexual intercourse, and condom use is significant. It should be mentioned that this group has relatively good knowledge and awareness about STDs. Even so, almost 30.0% of them are not using condoms properly. Women often use condoms to avoid unwanted pregnancy, whereas men use them primarily to prevent STD. In most cases, men are not reluctant to use condoms and take the initiative in their use.

There was a high percentage of condom use at the last sexual interaction among the participants, which may be a good indicator that preventive measures are present. Men tend to have a larger number of sexual partners over their lifetime than women. Brazilian medical students are engaged in same-sex relations more frequently than the general population.

There was a high prevalence of sexual violence in the sample. Almost all sexually active students had at least one risk behavior for contracting STDs. Male gender and enrollment in public universities were the variables independently associated with the most common sexual risk behavior.

Knowledge about data on medical students' sexuality is important in order to understand who are the future doctors of Brazil, their clinical practice and their medical-patient relationship, in addition to establishing a possible risk group in formation. It is important to remember that there was no study like this in Brazil so far.

Conflict of interests

The authors declare no conflict of interests.

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