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Original Article

Knowledge and practices of sexually transmitted infection prevention among young male university students*

Conhecimento e práticas de prevenção às infecções sexualmente transmissíveis entre homens jovens universitários

Conocimientos y prácticas para prevenir Infecciones de Transmisión Sexual entre jóvenes universitarios

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Abstract

Objective: to identify the knowledge and prevention practices regarding sexually transmitted infections (STIs) among young male university students. **Method:** a qualitative nature descriptive-exploratory study, conducted at a public university. 20 sexually active male university students between 18 and 29 years old participated in the study. Data collection was conducted using a semi-structured script, and the data were analyzed using the thematic-categorical content analysis technique. **Results:** despite participants recognizing that sexually transmitted infections (STIs) are transmitted through unprotected sex, factors such as unpredictability of sexual practices, trust in sexual partners in stable relationships, and alcohol consumption favor the non-use of condoms. Diagnostic tests and antiretroviral medications are adopted as substitutes for condoms use. **Conclusion:** the population group exposes itself to risks and lacks health education initiatives and access to disease prevention services.

Descriptors: Knowledge; Young Adult; Men's Health; Sexually Transmitted Diseases; Universities

Resumo

Objetivo: identificar o conhecimento e as práticas de prevenção às infecções sexualmente transmissíveis (IST) entre homens jovens universitários. **Método:** estudo descritivo-exploratório, de natureza qualitativa, realizado em uma universidade pública. Participaram 20 universitários do sexo masculino, na faixa etária de 18 a 29 anos e sexualmente ativos. Realizou-se a coleta de dados por meio de um roteiro semiestruturado e os dados foram analisados pela técnica de análise de conteúdo temático-categorial. **Resultados:** apesar de os participantes reconhecerem que as IST são transmitidas pela prática do sexo desprotegido, a imprevisibilidade das práticas sexuais, a confiança na parceria sexual em relacionamentos estáveis e o consumo de bebidas alcoólicas são fatores que favorecem o não uso de preservativos. Testes diagnósticos e antirretrovirais são adotados em substituição ao uso de preservativos. **Conclusão:** o grupo populacional se expõe a riscos e carece de ações de educação em saúde e acesso a serviços de prevenção de doenças.

Descritores: Conhecimento; Adulto Jovem; Saúde do Homem; Infecções Sexualmente Transmissíveis; Universidades

Resumen

Objetivo: identificar conocimientos y prácticas para prevenir infecciones de transmisión sexual (ITS) entre jóvenes universitarios. **Método:** estudio descriptivo-exploratorio, de carácter cualitativo, realizado en una universidad pública. Participaron veinte estudiantes universitarios varones, con edades entre 18 y 29 años y sexualmente activos. La recolección de datos se realizó mediante un guion semiestructurado y los datos se analizaron mediante la técnica de análisis de contenido temático-categórico. Resultados: aunque los participantes reconocen que las ITS se transmiten a través de relaciones sexuales sin protección, la imprevisibilidad de las prácticas sexuales, la confianza en las parejas sexuales, en relaciones estables y el consumo de bebidas alcohólicas son factores que favorecen el no uso del condón. Se adoptan pruebas diagnósticas y antirretrovirales en sustitución del uso de preservativos. **Conclusión:** el grupo poblacional está expuesto a riesgos y requiere acciones de educación en salud y acceso a servicios de prevención de enfermedades.

Descriptores: Conocimiento; Adulto Joven; Salud del Hombre; Enfermedades de Transmisión Sexual; Universidades

Introduction

This study focuses on the sexually transmitted infections (STIs) prevention practices among male university students. STIs can be defined as infections primarily transmitted through sexual intercourse by bacteria, viruses, and other microorganisms. They can also be transmitted through blood transfusion and vertical transmission during pregnancy, childbirth, or breastfeeding if the mother is infected.

These infections pose a global public health problem. If left untreated, they can lead to severe and chronic health effects, including neurological and cardiovascular diseases, infertility,

ectopic pregnancy, stillbirths, and an increased risk of human immunodeficiency virus (HIV) infection. These infections are also associated with significant stigma levels and domestic violence.[1] It is estimated that over one million new curable STIs cases occur daily in the population between 15 and 49 years old, equivalent to 376 million cases per year of syphilis, chlamydia, trichomoniasis, and gonorrhea.[2]

Regarding specific population groups, teenagers and young adults constitute 25% of the sexually active population; however, they represent 50% of the new records of STI infections.[3] Data indicate that young individuals have limited knowledge about STIs, a low perception of the risk of infection, inconsistent use of external condoms, and nearly non-existent use of internal condoms.[2,4] Even in the university environment, where better access to information on STIs and, consequently, greater care for sexual health is expected, studies reinforce that young people have not received comprehensive and accurate sexual education in their schools or homes. Observable behaviors expose them to risks.[5-6] Furthermore, the access of these young people to health services is limited due to their study routines, which may be full-time or associated with work/internship commitments, as well as psychosocial aspects of this life stage.[7]

Youth is characterized by significant psychosocial aspects that can vary from people to individual but are generally common to this life stage. These characteristics favor risky sexual practices for STIs, as it is a phase of identity construction, self-discovery, curiosity, and experimentation, including alcohol and other drugs. There is also an independence pursuit, freedom, and autonomy to make one's own decisions and exert control over one's life. In this stage, a wide range of intense emotional feelings is observed, including euphoria, passion, enthusiasm, but also anxiety, sadness, and confusion. It is common for young people to have a sense of invulnerability, underestimate risks, and be influenced by peers, seeking acceptance and social approval from the groups they are part of, even in terms of behaviors considered risky.[7-8]

Beyond the psychosocial aspects inherent to youth, gender-related social relations are also associated with vulnerabilities for men regarding the management of STIs, both in terms of accessing knowledge and in prevention practices. In some cultures, social pressures encourage men to believe they are strong and invulnerable, leading them to not perceive themselves as weak or ill. Practical and financial barriers are also identified as obstacles to men's access to health services, as they often prioritize care less due to lack of time resulting from professional or family responsibilities. Therefore, neglecting basic health care during the youth phase among men is

associated with morbidity, mortality, and the onset of chronic diseases in later stages of life.[6,9]

Social and psychosocial aspects make male university students a priority group for STI prevention efforts. There is a consensus that this population segment knowledge is insufficient on the subject. Inadequate knowledge places young people at risk of contracting STIs, making health education activities crucial in the university environment.[10-11] In this context, studies emphasize that the consistent provision of these activities in the university setting enhances students' knowledge of STIs and prevention practices.[12-13]

In Brazil, the adopted prevention model is that of combined prevention, aiming at inform and educate to promote people's autonomy in choosing prevention methods that are more appropriate to their circumstances and living conditions for safe sexual practices. The use of the term "combined" suggests that there is not a single method of prevention but a variety, and individuals can choose among the methods and combine them according to their preferences, without the need to exclude or replace.[14] Despite the term "safe sex" being generally associated with the continuous use of condoms in all sexual practices, its use has limitations. Therefore, other prevention measures are important and complementary for safer sexual practices.[1] Community organizations and public health experts consider that the condom usage alone is not enough to control the incidence of HIV.[15]

Given this context, the objective was to identify the knowledge and prevention practices of STIs among young male university students.

Method

This is a descriptive-exploratory study with a qualitative approach, conducted at a public higher education institution located in the municipality of Rio de Janeiro, Brazil. The choice of the institution considered the courses availability in all knowledge fields on the same campus, and operation in three shifts: morning, afternoon, and evening.

20 young male university students, between 18 and 29 years old, who were sexually active, participated in the study. The definition of youth was based on the Brazilian Youth Statute Framework, which considers individuals between 15 and 29 years old as young.[16] In this investigation, individuals under 18 years old were not included due to ethical and legal

requirements for parental consent in human research. To minimize research bias, considering the biopsychosocial aspects involved in masculinity construction, only cisgender individuals, that is, those who identify with the biological sex they were born with, participated. The exclusion criterion was not being enrolled in the institution that was the setting of this research.

Data collection took place in the first semester of 2021, during a period marked by the COVID-19 pandemic. In this pandemic context, teaching and social interaction practices have changed due to the necessary social distancing measures. The university environment, therefore, adopted online teaching platforms, a tool also chosen in this investigation. Google Meet® was employed for video calls, and the sampling was done through convenience sampling, using the Snowball technique. This technique involves people nominated as seeds who then locate people with the necessary profile for the research. The seeds help the researcher initiate contacts, and the first selected people indicates others in their social network to participate, and so on. The first participant was intentionally chosen, being a nursing undergraduate student affiliated with the central student directory. This student facilitated the researchers' connection with participants during the COVID-19 pandemic, a period when face-to-face teaching was replaced by remote learning.

A data collection was carried out by two male nurses, graduate students in *stricto sensu* postgraduate programs, using two instruments. The average collection time was 50 minutes. The first instrument was a questionnaire consisting of 30 questions aimed at gathering participants' sociodemographic characteristics, as well as information related to knowledge and practices of STI prevention. The second instrument was a semi-structured interview.

The script was organized into thematic blocks. The dialogue with the respondents was stimulated regarding sexual practices, knowledge about STIs and prevention methods. Information related to romantic relationships, sexual practices, knowledge about STIs and transmission methods, prevention practices, the preventive measures usage, and condom usage were prioritized in this research. The rules of exhaustiveness, representativeness, homogeneity, and relevance were followed until the saturation of information for the completion of interviews.[17] To ensure privacy and confidentiality, participants were instructed to conduct the interview in a comfortable, private location with a good internet connection, to avoid disruptions in communication. Permission was requested to record the interview using an audio device, and all participants agreed to it. Interviewees were identified with the letter 'E' for

the word 'interviewee', followed by the Arabic numeral corresponding to the interviews order (1, 2, 3, etc.).

The questionnaires were typed in the Microsoft Excel 2003 program, initially forming a database for subsequent descriptive analyses. The interview data were analyzed using the thematic-categorical content analysis technique.[17]

It is affirmed that all ethical aspects of the research involving human subjects, as outlined in Resolution No. 466/2012 and 510/2016 of the National Health Council, were respected. The study was approved by the Research Ethics Committee with Opinion No. 3,316,944 on May 9, 2019.

Results

As per Table 1, the participants social profile in this research is characterized by a predominance of black person young adults, between 25 and 29 years old, black persons, in a stable relationship, living with their parents, and having no religion despite believing in God. One of the participants has a partner and resides with them and their in-laws, alongside other family members.

Table 1 – Social profile of young male university students from a public educational institution. Rio de Janeiro, RJ, Brazil, 2022. (n = 20)

Social profile	f	%
Age group		
27-29 years old	9	45
24-26 years old	6	30
20-23 years old	5	25
Skin color		
Black or Brown	15	75
White	4	20
Asian	1	5
Relationship status:		
Have a partner	14	70
Do not have a fixed boyfriend/girlfriend or partner	6	30
Living arrangement / whom do they live with		
Parents and/or relatives	10	50
Partner	6	30
Partner and relatives	1	5
Lives alone	3	15
Religion		
Believe in God, but do not follow any religion	8	40

Evangelical/Protestant	4	20
Catholic	3	15
Umbanda	2	10
Candomblé	2	10
Spiritism/Kardecist	1	5

Table 2 demonstrates the profile of the participants' sexual aspects. Most of them have a homosexual orientation; the age of the first sexual relationship occurred between 16 and 20 years old, however, only ten students used a condom. In sexual practices within the last 12 months, the majority reported always using condoms.

Table 2 - Participants' Sexual Profile. Rio de Janeiro, RJ, Brazil, 2022. (n = 20)

Participants' Sexual Profile	f	%
Sexual orientation		
Homosexuals	10	50
Heterosexuals	8	40
Bisexuals	2	10
Age of first sexual encounter		
16-20 years old	18	90
10-15 years old	1	5
21-25 years old	1	5
Condom use during the first sexual encounter		
Yes	10	50
No	10	50
Condom use in sexual relationships		
Uses a condom in all sexual relationships	14	70
Does not use a condom in sexual relationships	5	25
Uses a condom only at the beginning of the relationship	1	5
Discontinuity in condom use		
Uses always	10	50
Do not use	7	35
Do not use in stable relationships after rapid STI tests*	2	10
Do not use in relationships with fixed partners	1	5

Note: *Sexually Transmitted Infections.

Regarding the analysis of the interviews, Table 1 shows that the *corpus* exulted in 386 registration units (RU), which were grouped into three categories.

Table 1 – Categories that Emerged in the Interview Analysis Process

Category	Description	RU*	%
Category 1	Male university students knowledge about sexually transmitted infections	69	17.9

Category 2	Male university student vulnerability to sexually transmitted infections	185	48
Category 3	Prevention practices for sexually transmitted infections	132	34.1
Total		386	100

Note: *Registration Units.

Male university students' knowledge about sexually transmitted infections

This category presents knowledge about STIs and comprises 69 UR, representing 17.9% of the investigated corpus. Among the interviewed students, 18 reported that STIs are infections acquired through sexual activity.

> *I think it's a disease that you end up contracting through sexual activity.* (E10)
> *They are diseases that are transmitted through sexual acts, such as oral sex,* [...] *anal, penetration.* (E1)
> *They are diseases that occur through direct contact without the use of a condom during sexual activity.* (E5)

Regarding the infectious agents that cause STIs, which can be viruses, bacteria, fungi, and other microorganisms, participants mention:

> *I understand that there is a virus that* [...] *spread in the world, around us, and anyone can* [...] *come into contact and be infected.* (E2)
> *The infectious agent, the agent that causes pathology, can be a virus, bacteria, fungus, microorganisms.* (E18)

Regarding STIs transmission, it was pointed out that sexual relations are not the only route of contagion, and infections are also transmitted through kissing, blood transfusion, bodily fluids, and poor genital hygiene, as in the excerpts:

> *Most are transmitted during unprotected sex, which is using no condom, and there are some that* [...] *are transmitted by contact with bodily fluids.* (E8)
> *I believe that you can contract a sexually transmitted disease through oral sex. If one of the people* [...] *has a wound in the mouth, inflammation in the glans of the penis, it increases the probability of infection and transmission.* (E10)
> *A person who has a virus can transmit it through a kiss if they have a wound in the mouth. Or through a* [sexual]*relationship.* (E7)

Among the participants in this research, only one commented that STIs are also vertically transmitted infections:

> *There are those that are congenital* [...] *acquired through sex but passed to another person congenitally,* [...] *from mother to child,* [...] *vertically.* (E13*)*

Male university student vulnerability to sexually transmitted infections

This category presents young male university students' vulnerability to STIs due to

various factors such as emotional relationships and the use of alcohol before sexual intercourse, representing 48% of the investigated *corpus* with 185 RU. In the students' reports, it is evident that emotional relationships are a predominant factor in their lives and can influence the adoption of risky behaviors by the group.

> *For us* [people with homosexual orientation]*, it is very difficult. Many people, especially due to family concerns, are afraid to go to a motel with a person of the same sex, not everyone has a car. There is the issue of where to have sex; not everyone has the financial means for a motel, so that's why many times they have relationships in the woods, in various places. People* [...] *say it's a fetish, but it's not. Many times, it's because there is nowhere else to go.* (E14)
> *In romantic relationships, it depends on the trust* [established between partners]*, on the history we have, on experience. If you trust, you don't need to use* [condom]*. Now, if it's someone new, and I don't know the person's history, then it's better to use it.* (I 11)
> *Once, when I had a relationship with an unknown person, it made me worried* [...]*, but, as there was no stronger emotional bond and I knew it was just one night, I didn't trust that person. At the beginning of my romantic relationship* [as I didn't trust the person]*, I used a condom. It was about two to three months. Then we talked about it and agreed to stop using it.* (E04)

Regarding young male university students' vulnerability, it is evident in the reports that they associate people's lack of information with their socio-economic situation.

> *I think it's a disease* [STI] *that is very connected to a population that is more deprived of information, financially deprived, and many people end up getting infected due to a lack of information.* (E12)
> *I think that, due to the population's lack of information, it becomes very difficult to combat these diseases* [STIs]*, but I think it's something quite easy to avoid. Even people with education and knowledge about diseases, risks, and dangers end up taking risky actions due to a lack of responsibility or information* [...]*.* (E10)

In the testimonies, the experienced prejudice by lesbian, gay, bisexual, transgender, queer/questioning, intersex, asexual/aromantic/agender, pansexual/polysexual, non-binary, and more (LGBTQIAPN+) individuals was also observed, often being stigmatized and identified as carriers of STIs.

> *So, this ends up bringing a stigma that every LGBTQIA+ person has a sexually transmitted infection, but that is not always true. And I can say this for myself and several friends I know. They don't have any STIs* (E16)
> *It was fine; my fiancé is HIV positive, and when I met him* [...]*, it was a bit complicated to break down all the prejudices I had. I talked a lot with him, with doctors, more experienced nurses, and I broke the taboos I had. Nowadays, it's normal for me.* (E11)
> *In fact, most people seek sex because, in LGBTQIA+ culture, as there has always*

> *been a lot of prejudice, for us, it is very difficult* [...]. *For us, it's difficult because there is still homophobia, prejudice because sometimes some family members can't see that we have a relationship like anyone else, they look at us as promiscuous.* (E14)

Another aspect associated with the vulnerability of the group is related to alcoholic beverages consumption and the practice of unprotected sex. Some young people are aware of the risks related to unprotected sex, but when they consume alcoholic beverages, they become susceptible.

> *Some people drink wildly and then go straight to having sex without thinking about* [their] *actions. In some way, this increases the person's risk because they completely lose their ability to think* [have control over] *that risk. Alcoholic beverages release a more relaxed, uninhibited 'self,' and also reduce the person's fears. In the end, this contributes. Alcohol makes the person more vulnerable* (E16)
> *When you use alcohol, you become more susceptible to doing things without reflecting* [become vulnerable]. (I 12)
> *When I use alcohol, that's an aggravating factor* [will have sex without thinking about prevention]. *It's a matter of window of opportunity for that to happen. Because sometimes it's a matter that I don't think straight* [will become vulnerable]. (I 19)
> *I believe that young people often get laid* [have sex] *without thinking about the consequences, either due to the use of alcoholic beverages, allowing themselves to be carried away by the moment, committing a risky behavior* [having sex without a condom]. (E10)

Prevention practices for sexually transmitted infections

This category represents 34,1% of the analyzed *corpus* and brings the young university students' perception about sexual health care, motivation (or lack thereof) for condom usage, and other practices for preventing STIs, as well as the importance of disseminating information about prevention.

The young people perception about the transmission of STIs can influence the adoption (or not) of condoms in their sexual practices. In the students' testimonies, they provide some justifications for the use or non-use of condoms in sexual relationships:

> *The reason, I don't remember,* [...] *I think it was due to the loss of sensitivity.* (E10)
> *I didn't like to use it*[condom]. (E4)
> *There's some complicate issue, but I'll tell you that it has happened. When the situation was hot, many times, I even removed the condom to continue the sexual act.* (E15)
> *Look, I see the condom as something fundamental to use, but it's something I don't like very much* [using condoms]. *I think it takes away my pleasure; I use it when I have to for precaution, disease prevention.* (E1)

> *Yes, that's why* [to prevent STIs transmission] *I always use a condom in all sexual relationships.* (E5)
> *I believe that prevention* [using condoms] *is the best way* [...] *in relation to sexually transmitted diseases.* (E15)

Health promotion actions are effective for disseminating knowledge and encouraging "self-care" with health. Participants mentioned the prevention methods relevance, the social media impact and the internet on sexual practices and health prevention, and ways of accessing this information.

> *Social media clarifies about STDs* [STIs]. (I6)
> *Nowadays, there is health promotion; there must continue to be a massive dissemination of preventive methods so that this infection does not continue at least at such alarming levels. Also, breaking the topic taboo, not just HIV, because there is hepatitis and other diseases transmitted through sexual contact. I believe that prevention and health promotion are the best solutions that population has. The condoms usage, Pre-Exposure Prophylaxis (PrEP) is super important.* (E9)
> *I research through the Ministry of Health, rely a lot on the source I am researching*, [...] *but I know there are several sources because I click on various links that are known as: Brasil Escola, and another one called Nossa Saúde.* (E10)
> *I usually research a lot on the internet and talk to friends, but this time I sought a health service because I got quite scared when I had the encounter and all* (E4)

However, access to information still has its challenges, especially in the family environment due to the taboo, as indicated by the following statement:

> *I practically didn't have such a thing* [information about sexuality and prevention of health problems]*, my father never talked to me about it, and neither did my mother. They were old-fashioned parents, so it became harder* [for the parents] *to comment, even though I'm a man, bringing up this subject to talk to me. Lately, I use Google a lot* [to get information]. (E3)

In terms of health care and seeking health services, the interviewees report:

> *I usually get a blood test, a general check-up on my body every six months.* [...] *From the moment I do tests, I already test for HIV, syphilis, hepatitis, all of that.* (E4)
> *As I use PrEP* [...] *we always do all the sexual tests and some routine ones.* (E11)
> *I do it every three months or every six months. If I have any kind of relationship, instead of testing each six months I do it each thre month. I used* [PEP] *and don't want to use it anymore, so I control myself and prevent myself in the best possible way.* (E19)
> *I believe that prevention and health promotion are the best solutions that population has. The use of condoms, PrEP is very important.* (E9)

With the advent of PrEP, other STIs are trivialized.

> *I don't think it's cool, but I know that PrEP protects, when people are going to have sexual relations, they say: "So let's take PrEP", "I take PrEP, don't worry".* (E18)
> *I have friends, many say that nowadays, with PrEP available, they only use it out of fear of HIV because they consider the other STIs treatable and, therefore, don't worry much about them.* (E19)

However, prophylaxes encourage people who adhere to this type of care to an increase in health care visits, receiving care from qualified professionals, and obtaining information, as reported:

> *I participated in a study at Fiocruz on HIV prevention, and in this study, they recommended PrEP to me, asked if I wanted to, and then referred me to PrEP, and I started taking it*[...]. *In my case, I use a combination of both, condoms with PrEP* (E11)
> *I had a relationship with a unknown person* [...]. *That's when I went to the family clinic, and Prophylaxis was prescribed.* (E4)
> *I've used it twice, and in both instances of Post-exposure Prophylaxis (PEP), despite after testing negative both times after exposure, I used it as a precaution measure. I then retested 30 days after use to confirm, and subsequently, after three months, took another test to ensure that there was no contamination.* (E19)

The reports also demonstrate that young people are more fearful of HIV infection because it still has no cure, while they understand that other infections are treatable.

> *Regarding HIV, I fear acquiring this disease because it involves more prejudice associated with it, more societal taboo surrounding the disease itself. Because it is incurable, it ends up evoking feelings of fear and anguish. For example, with other diseases, I don't have that, like syphilis, which, in fact, I would be more afraid of taking 'benzetacil'* [...]. (E13)

Although the feeling of fear can drive the adoption of practices to prevent STIs, some participants revealed that if a condom were to break during sexual intercourse, they would be more concerned about the occurrence of unwanted pregnancy than the transmission of STIs, as the testimonies reveal:

> *Sometimes, I don't even fear the STD* [STI] *itself, but the chance of getting the person pregnant and everything else* (I6)
> *There was a moment when I experienced unprotected sex and ended up seeking health services. The condom broke, I was worried at the time, not even about the STD* [STI]*, but maybe about having a child. Later, I come to my senses* [realized] *that we could get a disease.* (E8)

Discussion

In this study, it was identified that the majority of participants have a homosexual sexual

orientation, which differs from the Brazilian reality. Conservative estimates describe that 10% of the Brazilian population is homosexual.[18] In an investigation with 1268 sexually active Brazilian university students, 6.5% declared themselves as homosexual, and 7.84% as bisexual.[2] It is believed that, being a study that used the "*snowball*", methodology, where the social networks of the initial participants were used to indicate the next ones, the sample profile may have been influenced. However, this population group participation values the multiple masculinities existing in the country, especially in a group that suffers from stigmas and discrimination.

Regarding skin color, it was observed that the majority of participants identified as black or brown, demonstrating the progress of Brazilian affirmative action policies in education, such as those promoting racial equality. Nevertheless, this investigation presents a significant and divergent number from other studies, with the participation of 75% of black people. This fact may be associated with the social network of the first seed in the *snowball* technique, and thus, the results of this study may present a racial bias.[2,8,19]

Regarding the understanding of male university studets about sexually transmitted infections (STIs), participants understand that there are microorganisms that cause STIs, but without clarification on what they are, their main signs, and symptoms. Beyond the understanding that there is an infection caused by "*viruses, bacteria, fungi, and microorganisms*" (E18), it is essential to provide guidance on what they are and their main signs and symptoms for the timely identification and seeking of health care. Knowledge also enables young people to recognize asymptomatic infections and the need for condom use and/or other prevention technologies, such as regular visits to health services.[7-8,19-20]

Regarding knowledge about the main forms of STI transmission, the study shows that young people are aware, including making notes about risky behaviors and unprotected sex. However, vertical transmission was only addressed by one participant. Despite prenatal care still being strongly associated with females, men need to be included and jointly responsible for this care.[1,7]

It is essential to explain that sexual practice is a part of life and can be desired and experienced without guilt but with information, communication, and knowledge. Health education on sexual health and safer sex practices should be initiated even before the start of sexual activity, including in early grades, such as preschool. Beyond preventing STIs and unwanted pregnancies, sexual education has a much more critical role, promoting sexual

diversity appreciation, dating, intimate partner violence, prevention of healthy relationship development, prevention of child sexual abuse, better social/emotional learning, and increased media literacy.[21]

The attitude of young individuals towards condom use can vary widely based on various factors, such as culture, sexual education, personal beliefs, and individual experiences. Even though most young people recognize and value the use of condoms as an effective method to prevent STIs and unwanted pregnancies, their usage can still be neglected due to various reasons. These reasons may include a lack of knowledge about their importance, other contraceptive methods, concerns about a potential reduction in sexual pleasure, social pressure, or even the mistaken belief that they are in a secure relationship and, therefore, do not warrant additional concerns.

National and international studies also support the data presented in this investigation, indicating that condom inconsistency is associated with aversion to its use or the perception that it reduces pleasure. In these cases, usage will occur when men judge, based on social and cultural norms, that such a relationship may pose a risk or not. Disqualifying the primary knowledge that every sexual relationship has a potential risk.[8,22]

The perception of STI risk among young people in stable relationships is often influenced by a sense of mutual trust and emotional commitment. These individuals may underestimate the possibility of contracting STIs since they associate the stability of their relationships with sexual safety. However, it is important to recognize that fidelity in a relationship is not an absolute guarantee of protection against STIs. The lack of open communication about previous sexual histories and the absence of regular testing can create a false sense of security. It is essential to promote an educational approach that encourages frank discussion, informed decision-making, and access to health services for the prevention and STIs early diagnosis, even within stable relationships.[8]

Discrimination and prejudice persist in the lives of individuals within the LGBTQIAPN+ population. This study highlighted that men from this population are often identified as individuals infected with some STI. This phenomenon relates to the outdated concept of risk groups, a term that promotes moral and social judgment, as if infection only circulated within these population groups.[14]

Despite epidemiological data indicating a predominance of AIDS cases among men who

have sex with men (MSM) in the age group of 13 to 39 years in the Brazilian male population, the situation changes for men aged 40 and older. In this group, the epidemic becomes predominant among heterosexuals.[23] In this group, the epidemic becomes predominant among heterosexuals. It is evident that MSM have better coping behaviors and knowledge regarding HIV, with more HIV testing and knowledge about PEP. [24] However, the LGBTQIAPN+ population remains invisible in sexual education activities, especially in schools, and continues to face homophobic attitudes. Such attitudes, besides being a violation of human rights and sexual minority rights, contribute to this population health vulnerability. [25]

Another aspect associated with the vulnerability of the group is related to alcoholic beverages consumption and the practice of unprotected sex. The students in their testimonies reveal that under the influence of alcohol, they forgo condom use and become vulnerable to health risks. The consumption of illicit drugs and/or alcoholic beverages directly affects the perception of health risk and promotes unprotected sex.

The university population is predominantly composed of young individuals with an active sex life. Entering university allows them to experience a new world, full of new experiences. The fact that they enter university, still in their youth, means they must adapt to the course, establish bonds, and make new friendships. Additionally, they often attend parties, are exposed to alcohol and drugs, and experience situations that were previously prohibited or limited by their proximity to family.[26] In this scenario, research indicates that university students frequently engage in the use of legal and illegal drugs. This fact can be considered a risk mediator, as the use of these substances reduces the individual's perception, creating vulnerability and favoring situations of exposure to STIs.[4,8]

It is undeniable that the progress brought about by prevention technologies, through pre and post-infection prophylaxes for HIV, is essential for addressing and eradicating the epidemic However, the Brazilian prevention policy recommends that such strategies be part of a combination of methods. By adopting exclusively HIV prevention prophylaxes, individuals protect themselves from this health issue but remain vulnerable to other sexually transmitted infections. Therefore, it is necessary to integrate HIV prevention prophylaxes with other care strategies, such as health education, timely identification and treatment of other STIs, and encouragement of condom use.[27-28] HIV is still the most well-known and feared STI. On the other hand, AIDS remains a disease perceived to affect people with transgressive behaviors,

morally and socially reprehensible.[29]

Regarding men's access to health services, it is known that, in general, men are not usually encouraged to practice self-care, a behavior that is recurrent in various cultures. The act of taking care of one's health, as a rule, is not valued in the male context and is understood as a feminine practice The culture of being strong and virile implies the idea that a man loses his masculinity when he falls ill, and thus, he does not develop the habit of preventing health problems.[9,24]

Cultural and social factors, present in the societal imagination regarding models of masculinity, and even the difficulties faced in healthcare services in dealing with the male presence or incorporating it into system activities, are pointed out as discouraging factors for men's care in health services.[9,30] A study emphasizes that, concerning men's health promotion, there has been progress in some initiatives that seek to adopt a gender perspective in this care, with the articulation of biomedical, psychological, and sociocultural dimensions. However, it is observed that there are still difficulties in primary care in dealing with the presence of this public.[30] To overcome the access barrier, it is necessary to recognize and (de)construct the vision of masculinity. In this sense, it is essential to promote gender-sensitive and accessible health services and challenge harmful stereotypes that may hinder or limit self-care.

As a limitation of this study, it is evident that the COVID-19 pandemic prevented face-to-face contact with the participants, requiring it to be conducted digitally. The choice of only one seed for the *snowball*, technique may have introduced bias to the study, but the data found are similar to the findings of other investigations and deepen the discussion about sexual minorities, who still suffer from stigma and discrimination, such as the homosexuals who composed the majority of participants. Replicating the study in other institutions would be opportune to further explore the theme of prevention practices among young male university students.

This investigation aims to provide contributions so that universities become a supportive environment and strengthen health education strategies within their settings, as an ethical and civic commitment to a healthy world aligned with the goals of sustainable development. By providing accurate and comprehensive information about transmission, prevention, and treatment of STIs, education empowers these young individuals to make responsible decisions regarding their sexual health. Furthermore, health education challenges stigmas and misconceptions surrounding STIs, promoting a more open and informed approach to sexual

health. By raising awareness about the risks involved and encouraging protective practices, health education plays a vital role in promoting healthy behaviors.

Conclusion

This study highlights that male university students have knowledge, especially regarding the sexual transmission of STIs. Despite having access to a vast amount of information through the internet and social media, the quality is not always reliable.

Knowledge about signs and symptoms, blood or vertical transmission, and prevention practices is still insufficient among participants. Even though condoms are the most encouraged prevention method by public policies and valued by young people, it is observed that their use is linked to pleasure and trust in sexual partnerships; however, other preventive practices can be adopted. Additionally, it is noteworthy that college students sought pre and post-exposure prophylaxes through access to healthcare services However, prejudice and discrimination continue to impact diverse masculinities, especially among homosexuals

Investing in comprehensive sexual education in universities and improving access to healthcare services is crucial to provide accurate information and debunk misconceptions about STIs Furthermore, promoting discussions about sexuality at home and in society is essential to eliminate stigmas and create spaces where young people feel welcomed and free to seek help when needed. It should be emphasized that sexual education aims to empower young people to make the best decisions for a healthy and safe sexuality.

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