

Prevention of Sexually Transmitted Infections among young heterosexual men: a study on social representations

Prevenção de infecções sexualmente transmissíveis entre homens jovens heterossexuais: estudo de representação social

Prevención de infecciones de transmisión sexual entre hombres jóvenes heterosexuales: estudio de representación social

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ABSTRACT

Objective: to analyze the social representations of Sexually Transmitted Infections and prevention practices among young heterosexual men. **Method:** a qualitative study supported by the Theory of Social Representations and with a procedural approach, carried out between March and May 2023 with 30 heterosexual men in Rio de Janeiro. The data were collected through semi-structured interviews and treated using the content analysis technique. All ethical procedures for research involving human beings were respected. **Results:** the analysis revealed four categories: Young men's understanding about Sexually Transmitted Infections, prevention and information sources; Strategies adopted by young men to prevent Sexually Transmitted Infections; Young people's images and feelings in relation to Sexually Transmitted Infections and prevention practices; and Condom use by young people and factors that favor vulnerability to STIs. **Final considerations:** the group's social representation of infections is anchored in the cognitive dimension. However, prevention practices are shaped by the affective-attitudinal dimension of relationships. **Descriptors:** Men's Health; Sexually Transmitted Diseases; Primary Prevention; Social Representation; Sexual Behavior.

RESUMO

Objetivo: analisar as representações sociais das infecções sexualmente transmissíveis e as práticas de prevenção entre homens jovens heterossexuais. **Método:** estudo qualitativo, apoiado na teoria das representações sociais, com abordagem processual, realizado com 30 homens heterossexuais, no Rio de Janeiro, entre março e maio de 2023. Dados coletados por entrevistas semiestruturadas e tratados com a técnica de análise de conteúdo. Todos os procedimentos éticos de pesquisa envolvendo seres humanos foram respeitados. **Resultados:** na análise, emergiram quatro categorias: compreensão dos homens jovens sobre infecções de transmissão sexual; estratégias adotadas por homens jovens para a prevenção das infecções sexualmente transmissíveis; imagens e sentimentos dos jovens em relação às infecções sexualmente transmissíveis e práticas de prevenção; e uso de preservativo por jovens e fatores que favorecem a vulnerabilidade às infecções. **Considerações finais:** a representação social do grupo sobre as infecções está ancorada na dimensão cognitiva. Entretanto, as práticas de prevenção são moldadas pela dimensão afetivo-atitudinal dos relacionamentos.

Descritores: Saúde do Homem; Infecções Sexualmente Transmissíveis; Prevenção Primária; Representação Social; Comportamento Sexual.

RESUMEN

Objetivo: analizar las representaciones sociales de infecciones de transmisión sexual y prácticas de prevención entre hombres jóvenes heterosexuales. **Método:** estudio cualitativo, basado en la teoría de las representaciones sociales con enfoque procedimental, realizado entre marzo y mayo de 2023 con 30 hombres heterosexuales en Río de Janeiro. Datos recopilados mediante entrevistas semiestructuradas y analizados mediante técnica de análisis de contenido. Se respetaron todos los procedimientos éticos para investigación con seres humanos. **Resultados:** el análisis reveló cuatro categorías: comprensión de hombres jóvenes sobre las infecciones, la prevención y las fuentes de información; estrategias adoptadas por hombres jóvenes para prevenir las infecciones; imágenes y sentimientos de jóvenes en relación con las ITS y las prácticas de prevención; y uso del preservativo por parte de los jóvenes y factores que favorecen la vulnerabilidad a las infecciones. **Consideraciones finales:** la representación social del grupo sobre las infecciones se basa en la dimensión cognitiva. Sin embargo, las prácticas de prevención se ven moldeadas por la dimensión afectivo-actitudinal de las relaciones.

Descriptores: Salud del Hombre; Enfermedades de Transmisión Sexual; Representación Social; Prevención Primária; Conducta Sexual.

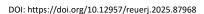
INTRODUCTION

Sexually Transmitted Infections (STIs) represent a major public health problem that exerts impacts on millions of people globally. It is estimated that there are approximately 376 million new cases of curable STIs such as gonorrhea, chlamydia, trichomoniasis and syphilis each year, in addition to many other viral infections like HIV and HPV¹. In Brazil, the

This paper was carried out with the support of the Rio de Janeiro State Research Support Foundation (*Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro*, FAPERJ) - Brazil, Notice E_26/2021 - *Auxílio Básico à Pesquisa* (APQ1) at the UERJ and UEZO state Scientific and Technical Institutions - 2021, process SEI-260003/015578/2021-APQ1. Corresponding author: Thelma Spindola. Email: tspindola.uerj@gmail.com

Editor in Chief: Cristiane Helena Gallasch; Associate Editor: Felipe Kaezer dos Santos







prevalence of STIs among young people is particularly alarming, with a growing incidence of HIV among men aged 15 to 29². This scenario highlights the importance of investigating the social representations related to these infections and prevention practices among young men³, considering that a representation is an interpretation of reality influenced by several factors, such as social and ideological contexts or history of the individual and their group, which guide actions and social relations⁴.

Failure to adopt preventive practices to maintain sexual health, biological, cultural and socioeconomic aspects are factors that contribute to the occurrence of STIs. Youth is a phase marked by biopsychosocial transformations in which sexual behaviors are strongly influenced by sociocultural and gender issues. Young men in particular tend to adopt attitudes that reflect hegemonic masculinity conceptions, oftentimes associated with denial of vulnerability and resistance to adopting preventive practices, such as consistent condom use⁵. The invulnerability self-image and the fear of being seen as weak directly influence attitudes related to sexual health³.

From this perspective, the predisposition to illness may be influenced by gender issues. It is known that, due to their sexual behavior, males have greater exposure to STIs when compared to females and that this group's behaviors are influenced by sexist conceptions that are socially constructed over time⁶.

In the clinical practice, it is observed that many young men only seek medical care when they present advanced STI symptoms, evidencing failures in preventive practices. In addition, there is a tendency to only rely on preventive methods in casual relationships, while condom use is oftentimes abandoned in stable relationships due to mutual trust in the partner⁵. This behavior reveals the need to deepen the understanding about the social representations that shape these practices, especially considering the emotional and affective aspects that influence preventive decisions.

The Theory of Social Representations (TSR) proposed by Serge Moscovici⁷ offers an appropriate theoretical framework for understanding how young men construct their perceptions about STIs and preventive practices. This theory suggests that social representations are collective knowledge constructed and shared by groups, anchored in pre-existing values, beliefs and experiences that influence individual and collective behaviors⁸. In the STI context, these representations can shape the way young men understand and cope with the infection risks, as well as the preventive strategies they adopt.

This study had the social representation of STIs and the prevention of infections among men as its objects and aimed at analyzing the social representations of STIs and prevention practices among young heterosexual men.

Theoretical framework

Moscovici⁹ defines the TSR as a set of concepts, statements and explanations that should be considered as true theories of common sense, "sui generis" collective knowledge, through which social realities are interpreted and even constructed. Its main purpose is to make the unfamiliar familiar. Researching the representations of STIs and prevention practices among young men makes it possible to understand how this group understands Sexually Transmitted Infections and how they behave when faced with the risk of contracting them. This knowledge allows nurses to adopt effective preventive strategies and educational actions when working with this population segment, contributing to minimizing these health problems.

The procedural approach developed by Jodelet⁸ considers that access to knowledge about representations starts from understanding human beings as producers of meanings, focusing on the analysis of symbolic productions, meanings and language, through which people construct the world they live in⁷. This approach seeks to evaluate each subject in a holistic and global manner, providing support to elucidate the phenomena that take place in the social context.

METHOD

This study is part of the project entitled "Practices for preventing Sexually Transmitted Infections in the sexual diversity context", a descriptive and qualitative research theoretically grounded on the TSR and with a procedural approach. The qualitative methodology was chosen because it allows for a deep and detailed understanding of social phenomena, capturing the participants' meanings, beliefs, values and attitudes in relation to the study object¹⁰. This type of research is particularly appropriate for exploring issues related to health and preventive behaviors, as it provides a detailed analysis of the subjectivities of the individuals involved.





The research was conducted in the city of Rio de Janeiro with a sample of 30 heterosexual men aged between 18 and 29 years old, sexually active and who reported having had sexual relations in the last 12 months prior to data collection.

The participants were selected using non-probability convenience sampling, i.e., they were chosen based on accessibility and availability without any random criteria. Considering that males tend to be more reserved about sexuality-related topics, the "snowball sampling" technique was used, in which the participants indicate other possible subjects for the study – a strategy that is particularly effective in hard-to access populations. Therefore, the seeds help researchers to initiate contacts, and the first individual selected indicates others from his/her social network as participants, and so on. The first individual interviewed was a contact of one of the researchers who indicated other participants, and so on, following the "snowball" technique.

The interview script was previously tested with three young individuals, and the necessary adjustments were made to the instrument. This material was not incorporated into the sample set for the interviews. During the interview process, six young people refused to participate, which required searching new deponents.

Data collection was carried out in two stages between February and May 2023 and using two complementary instruments. In the first stage, a structured questionnaire was applied to characterize the participants' sociodemographic profile and to gather information about their sexual and preventive practices related to STIs. Subsequently, semi-structured interviews were conducted aiming to capture the participants' social representations about Sexually Transmitted Infections and infection prevention practices. The interviews were conducted in person and in social spaces, ensuring a comfortable environment and the participants' privacy, with the sole presence of the interviewer and the interviewee.

The interviews were conducted by a nurse researcher who was studying for a Master's degree, was part of a research group and was trained to conduct qualitative interviews at the time of data collection. The interviews lasted a mean of 20 to 30 minutes, were recorded using an electronic device with prior authorization from the participants and were later transcribed for processing and analyzing the findings. No interviews were repeated. The script was organized into thematic blocks, covering aspects such as the following: affective relationships, sexual practices, perception and knowledge about STIs, transmission routes and preventive practices. This structure allowed implementing a systematic approach to the central study themes and eased identifying patterns and divergences in the participants' answers. Considering that the TSR procedural approach was used in this research, the recommended number of subjects for conducting studies employing these theoretical grounds was respected, that is, 30 subjects. It is worth noting that saturation of the findings was reached in interview 25, when the data began to repeat themselves; however, another five interviews were conducted for confirmation, as well as in light of the theoretical-methodological framework.

For the discursive data analysis, the thematic-categorical content analysis technique was used¹², complemented by systematization¹³. The analysis process followed these stages: exhaustive reading and organization of the material; identification of the Registration Units (RUs); highlighting the most relevant excerpts for the analysis; determination of the Units of Meaning (UMs) or themes; quantification of the UMs in the different *corpora*; construction of the analytical categories; and naming and quantification of the categories, in addition to description and discussion of the categories emerging from the data¹³. This method made it possible to identify recurring patterns in the participants' statements and to create theoretical categories consistent with the research objectives.

The study was conducted in accordance with the ethical standards for research involving human beings and was approved by a Research Ethics Committee. All participants signed the Free and Informed Consent Form, ensuring voluntariness and respect for the privacy of those involved.

RESULTS AND DISCUSSION

The characterization of the participating men showed that most of them were aged between 18 and 24 years old (n=21; 70%), self-declared white-skinned (n=18; 60%), lived with their parents (n=15; 50%) and with Complete High School (n=25; 83%). The majority were employed (n=19; 63%), earned a salary and did not have a partner or girlfriend at the time of the research (n=14; 46%).

Regarding condom use in all sexual relations, 18 reported this practice (60%). However, 23 participants mentioned consuming alcohol or drugs before sexual intercourse (76%), a factor that can increase vulnerability to STIs². Regarding their emotional and sexual life, 23 reported having sexual relations with regular partners in the last 12 months (76%), but only eight stated using condoms in these relations (34%), evidencing a less rigorous protection pattern in stable relationships. These characteristics reinforce that the participants share sociodemographic and behavioral elements





that place them in the same belonging group, influencing their social representations about STIs and prevention practices.

A total of 307 RUs emerged in the process of analyzing the interviews, organized into four categories: Young men's understanding about Sexually Transmitted Infections, prevention and information sources (130 RUs); Strategies adopted by young men to prevent Sexually Transmitted Infections (83 RUs); Young people's images and feelings in relation to Sexually Transmitted Infections and prevention practices (71 RUs); and Condom use by young people and factors that favor vulnerability to STIs (63 RUs), as presented in Table 1.

 Table 1: Categories that emerged in the interview analysis process. Rio de Janeiro, RJ, Brazil, 2023.

		Number	
Categories	Description	of RUs	f (%)
Category 1	Young men's understanding about Sexually Transmitted Infections, prevention and information		
	sources.	130	37.46
Category 2	Strategies adopted by young men to prevent Sexually Transmitted Infections	83	23.92
Category 3	Young people's Images and feelings in relation to Sexually Transmitted Infections and		
	prevention practices	71	20.46
Category 4	Condom use by young people and factors that favor vulnerability to STIs	63	18.15
Total		347	100.00

Note: RU - Registration Unit.

Category 1: Young men's understanding about Sexually Transmitted Infections, prevention and information sources

This category with 130 registration units (RUs) represents 37.46% of the *corpus* analyzed and includes four units of meaning: Understanding about STIs (60 RUs), Infection transmission routes (30 RUs), Understanding about how to prevent STIs (20 RUs) and STI information sources (20 RUs).

Young people's understanding about Sexually Transmitted Infections is influenced by different information sources, ranging from information obtained through social networks and friends to formal health education content. Although the participants demonstrated familiarity with the topic, their statements revealed knowledge gaps, especially regarding preventive strategies beyond condom use. The statements reveal how these perceptions directly impact the way young people interpret risks and structure their prevention practices.

I understand that they're diseases transmitted through sex, in a relationship with a partner [...] [and] contamination by needles [contaminated sharps]. (M1)

It's a series of viruses that are transmitted through some sexual acts, saliva, in this case kissing, through any small wound that may touch [...] (M4)

What I know is that even if a person has sex, doesn't use a condom and generates thousands of sexually transmitted diseases in various ways [...] (M13)

STIs are linked to a sexually transmitted disease, but sometimes they're infections [...] And not necessarily only through sexual intercourse, you can get infected perhaps by sharing a syringe. But, if you walk around unprepared [without a condom] in one, you can catch HIV, hepatitis [...] but also through a kiss, I think contact with fluids and through contamination with a syringe. (M26)

In the participants' reports, it can be noticed that STIs were not only associated with sexual transmission but also with other forms of contagion, such as sharing needles and sharps, blood transfusions and vertical transmission. This perception suggests that young people's understanding about STIs may be influenced by public health campaigns, which have historically emphasized HIV/AIDS prevention among injectable drug users¹⁴. However, this view does not always reflect adequate knowledge about the different transmission routes for STIs. These infections are caused by microorganisms such as bacteria and viruses that are transmitted during unprotected intercourse, by contact with contaminated secretions (mucosa or broken skin) or via vertical transmission during pregnancy, childbirth or breastfeeding. STIs represent a serious public health problem¹⁴.

The World Health Organization highlights that misinformation about STIs remains a global challenge, directly impacting adherence to appropriate preventive measures¹. In Brazil, updated guidelines recommend that educational





actions emphasize the diversity of transmission routes and prevention for STIs, preventing knowledge gaps from leading to the adoption of risky behaviors².

A study conducted with young people found that some of them find it difficult to understand this information or have doubts about this subject matter¹⁵. Identifying the risks to which they are exposed should be a protective factor; however, continuing certain practices is considered a risk factor. The approach to the topic becomes more expressive based on the experiences underwent by young men, through health actions aimed at preventing STIs, which seems to expand access and the knowledge repertoire of this group on this topic¹⁶.

Some studies indicate that the social construction of knowledge about STIs among young people may be strongly linked to sociocultural factors and to the availability of qualified information³⁻⁸. The literature reinforces that social representations of STIs are oftentimes limited to HIV and AIDS, while infections such as HPV, syphilis and gonorrhea are paid less attention to, resulting in inconsistent preventive practices¹⁷. In addition, young people's vulnerability to STIs is related to misconceptions about risk and protection, which reinforces the need for effective educational interventions⁵. Therefore, it is essential that health education strategies be reformulated to include comprehensive information about the various transmission routes and prevention for STIs, ensuring that young people can adopt more effective and scientifically based preventive practices³.

Regarding young men's knowledge about STI prevention, the participants mentioned male condom use, an efficient resource in preventing STIs.

[...] as there's condoms for this [protection], then I think the best way is to protect yourself. (M5)

[...] if I'm going to do something [have sexual relations], I always use protection [condom]. (M8)

[...] condom use is the only certainty we have [to avoid being exposed]. (M15)

[...] as a way of preventing [STI] there's condoms. (M24)

Male condoms are a method for preventing exposure to STIs recognized by the group under study; however, only 15 (50%) of the young individuals from the sample mentioned using this resource during sexual relations. A study conducted with university students on knowledge about STI prevention revealed that young people recognize the importance of condom use during sexual relations; however, when considering oral sex practices, the majority do not believe these devices important or necessary¹⁸.

Male condom use is highly recommended in all sexual relations. It is considered a safe and effective method for preventing STIs and is a low-cost resource widely available in public health services¹⁹. The literature indicates that, although knowledge about male condoms is widespread, their use still faces barriers related to individual beliefs, peer influences and emotional aspects involved in negotiating use of this resource¹⁹. Understanding the aspects related to STI transmission and prevention can assist in the adoption of protective practices during sexual intercourse, with an emphasis on correct condom use²⁰.

Furthermore, STI prevention is not restricted to condom use; it is essential to consider adherence to combined strategies such as regular testing and access to Pre-Exposure Prophylaxis (PrEP) and Post-Exposure Prophylaxis (PEP), which are still not widely used among young people²⁰. In addition, PrEP is indicated for individuals at continuous risk of exposure to HIV and PEP is recommended as an emergency measure after potential exposure to the virus, as established by the Ministry of Health².

Regarding information sources about STIs, 24 participants reported that they resorted to the Internet, friends or social networks. However, seeking out health professionals and/or formal educational programs was rarely mentioned by the group, as shown in the excerpts from the statements.

Basically [searching for information] on the Internet and so on, college groups and friends. (M17)

[...] We learn from life. (M18)

Fear made me look for information [about STIs] on the Internet. (M22)

So, the best thing to do is to seek help from a professional [information from a health professional]. (M25)

The Internet has transformed the way people interact with each other. In recent years, the emergence of social media has established a "new" environment for social interaction, with different perspectives and opportunities to be explored. Among these is the ability to share information about health education and well-being promotion, seeking to raise awareness among people about adopting healthy and preventive habits. In addition, it has enabled the creation of communication channels that bring professionals and the general population closer together²¹.





Currently, social media are a widely used communication resource to disseminate information. However, campaigns that broadcast content related to STI prevention methods have little visibility. It would be important to disseminate this content to build new paradigms based on current strategies for safer sexual practices, as recommended by the Ministry of Health. Young men mentioned school as a place where they learned content about STIs and prevention practices, with an emphasis on condom use and management, but did not address sexual infections. Their statements suggest the importance of this knowledge for preventing these diseases.

In high school, third year, 16/17 years old, they gave lectures. They give you a lecture about it, but you don't experience it. You have information, but you have no idea... (M3)

I only had a few classes in high school, and only a few, very few classes, they could've been more. That kind of quick project, you know, of teaching how to use condoms, things like that [...] (M9)

[...] at school, the science teacher, who even took the banana and the condom and taught how to use it. (M23)

[...] even more so from my parents [I received information about STIs] than from the school itself. (M10)

In my family, I had access to this type of subject matter [guidance on STI prevention]. (M28)

The participants reported that, in the school context, they had access to information about STIs and prevention methods (such as condom use) mainly in lectures and specific classes. However, many of them perceived that this information was superficial and not aligned with their personal experiences. Some highlighted the importance of talking to parents and family members, indicating that the guidance received within the family was relevant for understanding STIs, when compared to the content presented at school. In this sense, some authors highlight those educational strategies, both in schools and in health units, have proved to be effective in promoting preventive practices against STIs²².

Actions aimed at preserving sexual health and safer sex practices should be taken before sexual activity begins. In addition to preventing STIs and unwanted pregnancies, sex education plays an important role in valuing sexual diversity and dating and in preventing intimate partner violence, developing healthy relationships, preventing child sexual abuse and promoting better social/emotional learning and media literacy²³.

Considering that the objective of this study is to analyze social representations about Sexually Transmitted Infections and the strategies adopted for prevention, it can be seen that young people's conceptions in relation to the themes are anchored in daily experiences and interactions with social groups. This anchoring serves to instrumentalize knowledge, conferring it a functional value for interpreting and managing the environment⁸.

The young heterosexual men surveyed recognize the object of this research (STIs) and mentioned information regarding what they understand about it, how these infections are transmitted and how they can be prevented (what resources should be used). Although they stated some understanding about the subject matter, it was noticed that some young men did not show adequate understanding of the topic. It was observed that, although the participants demonstrated some understanding about STIs in relation to knowledge about prevention, Pre- and Post-Exposure Prophylaxis (PrEP and PEP) were not spontaneously mentioned. This absence suggests a gap in knowledge about combined prevention strategies, which include measures recommended by the Ministry of Health. This finding reinforces the need to expand dissemination of these strategies among young heterosexuals, ensuring access to qualified information about diverse protection means. In this sense, Abric understands representations as something organized and structured that permeates several psychosocial dimensions²⁴.

Category 2: Strategies adopted by young men to prevent Sexually Transmitted Infections

This category has 83 registration units (RUs), represents 23.92% of the *corpus* analyzed and includes three units of meaning: condom use, immunization and rapid testing. The preventive strategies mentioned by the participants reflect the predominance of condoms as the main protective measure, while other approaches such as regular testing and vaccination against STIs are less recognized and/or adopted by the group. Young people's perception about prevention is strongly linked to availability and knowledge about these measures, influenced by individual and contextual factors. The statements reveal how access to information and health care directly impacts adoption or neglect of these preventive strategies.

Man, I always used [condoms] because a young man's biggest fear, even though it doesn't go away immediately, is the disease, having a child goes through his head. (M8)

I've been using condoms to avoid having children, not a disease, but a child. (M13)

Look, I usually use [condoms] because I don't want to have children any time soon. (M29)





Among the methods mentioned, male condom use was the main strategy cited by young people, widely recognized as an effective method to prevent both unwanted pregnancies and STI transmission. However, 18 participants (60%) reported using condoms mainly as a contraceptive method, with less focus on preventing infections. This reflects a limited understanding about the dual function of condoms and suggests that, to a large extent, their use is conditioned by fear of early pregnancies rather than for being aligned with STI prevention.

Studies with young university students corroborate the findings of this research when they detect that condom use was more associated with the prevention of pregnancies than with Sexually Transmitted Infections^{25,26}. In this context, although men and women recognize the importance of condoms for STI prevention, some factors contribute to discontinuation in using this resource, such as the idea that condoms are only resorted to as a contraceptive method²⁷.

Although condom use is a common practice among the respondents, it is oftentimes restricted to casual relationships and less prevalent in stable, long-term relationships. This practice is observed in long-term relationships due to trust in partners and leads to condom use discontinuation. This behavior has been identified as a vulnerability factor, as reduced use of preventive methods in stable relationships can increase exposure to STIs^{26,28}. The expression "safe sex" is generally associated with condom use and reflected in the participants' statements, who report using this method in all their sexual relations.

[...] always using protection [condoms], because protection will ensure that you don't have a child or any disease. (M7)

So, I'm so obsessed about this, then I've never had sex without a condom. (M26)

I always use [condoms], I'd only have [sex] without a condom with someone I was going to live with, with a wife in the future. (M27)

The participants recognize condoms as a method recognized for preventing STIs, and the young men's statements indicate that using this resource is part of the group's common sense.

The young men's reports demonstrate the group's knowledge about the importance of safer sex practices to prevent sexual health problems. However, although 18 participants reported using condoms in all sexual relations (60%), some studies have highlighted the inconsistency of this practice in reality. Thus, the continued adoption of preventive measures such as condom use can be modulated by several factors, including individual perceptions of risk, levels of trust in the partner and emotional and social contexts²⁵.

The importance attributed by young people to condoms can be noticed in the reports, relating them both to STI prevention and to preventing unwanted pregnancies. However, the emphasis on using them "in all sexual relations" seems to be associated with an idealized or circumstantial view, subjected to modifications depending on the emotional relationship or social context. One of the interviewees (M27) mentioned that he only would opt for sex without a condom in a more stable relationship, with a future wife, indicating that the concept of "safe sex" is something negotiable and subjected to variation, depending on the type of relationship with the sexual partner. This behavior increases the likelihood of a person contracting STIs²⁶.

In their statements, the interviewees stated that they had some knowledge regarding vaccines. In this context, there is prevalence of vaccines against hepatitis and HPV, indicating that these immunizers are the ones most remembered by the group.

[The vaccine against] HPV, I've already taken it. (M4)

[...] but I took [the vaccine] one for HPV. (M6)

I got vaccinated against HPV and hepatitis. (M10)

Hepatitis is the only one I can remember [having had]. (M24)

The excerpts show that the group's vaccination coverage is low. Some participants reported being unaware of the existence of vaccines that provide effective immunity against some STIs, such as hepatitis B and HPV. In the context of adopting preventive practices, a study²⁹ found that the participants were not aware of the relationship between HPV and oropharyngeal cancer. They add that the individuals' likelihood of adhering to the HPV vaccination schedule is higher when they receive advice from a health professional about transmission and the risks that the infection poses to health, highlighting the importance of professionals in health education and encouraging prevention through vaccination²⁹.





The Ministry of Health recommends adopting some complementary strategies for safer sexual practices, such as vaccination against HPV, Pre-Exposure Prophylaxis (PrEP) when indicated, Post-Exposure Prophylaxis (PEP) and regular testing for HIV, syphilis, hepatitis and other STIs².

Vaccination is known to be crucial as a primary precaution against several HPV-related diseases that affect men and women alike. Therefore, as with any other vaccine, it is important to raise awareness about HPV vaccination especially among adolescents, emphasizing that immunization is independent of sexual activity. Thus, encouraging the adoption of preventive behaviors regardless of the method used continues to be one of the best strategies to reduce the occurrence of STIs³⁰.

Category 3: Young people's images and feelings in relation to Sexually Transmitted Infections and prevention practices

Comprising 71 RUs, the third category corresponds to 20.46% of the *corpus* analyzed and includes two units of meaning addressing young men's images and feelings in relation to STIs (46 RUs) and prevention practices (25 RUs).

In the group under study, 17 young people mainly remembered HIV and AIDS when thinking about STIs, highlighting feelings of fear and repulsion towards infections. The HIV-related images were anchored in prevention campaigns from the 1990s and 2000s, especially those that used icons such as singer Cazuza, a figure that still resonates in the social representations of a generation that experienced the HIV epidemic peak in Brazil.

AIDS [STI image], a person with very low immunity and a cold, is something to be afraid of [...] condoms are prevention [image associated with prevention]. (M15)

[STI-associated image] and those vaginas full of warts come to mind. (M19)

I have a big association with campaigns emphasizing AIDS and condoms [prevention-associated image]. (M1)

In the young men's statements, we can see the relationship between the images associated with STI prevention and exposure to infections, especially Acquired Immunodeficiency Syndrome (AIDS), which is a disease caused by HIV infection and directly affects the immune system². The statement by H1 indicates that STI/HIV/AIDS prevention is related to condom use, showing the influence of educational campaigns for the group. In H15's understanding, the image of a person with low immunity is associated with HIV infection and AIDS, at a time when Antiretroviral Therapy (ART) did not exist. It is worth noting that this drug resource was made available from 1987; in Brazil, universal and free distribution began in 1996, which contributed to improving Quality of Life in people living with the virus and to reducing the stigma imposed by society on HIV carriers³¹.

A study conducted with 160 university students, which analyzed social representations about STIs and used the structural approach as theory, found that young university students understand STIs as diseases (such as AIDS, HIV and syphilis), with AIDS and HIV infection as the most prominent ones. They add that AIDS and syphilis stood out in terms of recognition by the group under study, possibly because they are widely disseminated in the media and also in academic circles³².

Participant H19 mentioned STI-related images such as Cazuza, who represented the struggle of an idol in the fight against AIDS in the 1980s, and the description of a vagina with warts, which illustrate the visible impacts of these infections. The statements highlight the influence of images and representations on perceptions and preventive behavior in relation to STIs.

In the 1990s, AIDS was perceived as a disease "of the other" and had a "face", a stereotype associated with homosexuality and weight loss³³. A study that used the TSR as theoretical framework and sought to explore the imaginary about AIDS or HIV among carnival service providers found that the most evoked words for the term "HIV" were "disease", "fear" and "prevention"³⁴. Regarding the prevention-associated images associated, 20 interviewees highlighted condoms as a fundamental resource, as shown in the following statements:

I have condoms in mind [as a prevention image]. (M1)

What comes to my mind is condoms. (M13)

[...] I associate condoms [prevention image]. (M17)

The reports show that young people recognize condoms as an STI prevention method. Knowledge about the topic strengthens the group's stance, contributing to reducing vulnerability to STIs. It is clear that young people can associate an image with STIs and prevention practices; however, recognizing these infections and understanding prevention methods do not necessarily guarantee changes in behavior. Although they understand condoms as a prevention





strategy, the practice of using this resource by the group is not consistent. The HIV/AIDS epidemic brought with it a new perspective on protection in sexual relations, something fundamental for the younger generations mainly due to the public prevention policies adopted by several countries since the end of the 1980s. In this scenario, measures in the education and health areas began to be encouraged, aiming to integrate condom use (traditionally associated with preventing "venereal diseases") into sexual practices¹⁹.

In this sense, encouraging the adoption of preventive behaviors regardless of the method used continues to be one of the best strategies to reduce the negative consequences caused by the virus epidemic³⁰. The reports highlight condoms as a prevention symbol, referring to the campaigns of the 1990s especially during Carnival, which aimed at changing society's behavior regarding unprotected sex. It is worth remembering that condom use dates back to times before the Christian era, with records throughout mankind evolution. The data from this study are in line with the literature, indicating that, although men and women recognize the importance of condoms in preventing STIs, factors such as the perception that they only serve as a contraceptive method contribute to their discontinuation²⁷.

In the young men's reports it was noticed that, when associating images with prevention, they did not mention Pre-Exposure Prophylaxis (Prep) or Post-Exposure Prophylaxis (PEP). It is known that these prophylaxis methods are not widely used among young people and that they are more widely recognized by people with risky sexual behaviors, such as homosexuals and bisexuals, who fail to use condoms³⁵.

In Jodelet's understanding, "practice is configured as the concrete manifestation of representation, its expression in a tangible context, transforming group knowledge into 'practical knowledge'" 8:37. In young men's conception, HIV continues to be the reference when thinking about STIs and condoms are seen as the main barrier to prevent this infection. However, this limited perspective can increase the group's vulnerability in relation to other STIs, which are oftentimes not perceived as equally serious or prevalent.

Category 4: Condom use by young people and factors that favor vulnerability to STIs

With 63 RUs, this category represents 18.15% of the *corpus* analyzed and includes three units of meaning: condom use and type of sexual partnership (30 RUs), factors that influence inconsistent condom use (20 RUs) and factors that promote using these devices (13 RUs).

Young people's perceptions about STI transmission can encourage irregular condom use, which is also oftentimes influenced by the type of love relationship. Thus, according to young people's understanding about possible exposure to STIs, condoms may (or may not) be used, a decision that is influenced by the nature of the relationship. The statements reveal some common justifications for not using condoms during sexual relations, highlighting emotional and contextual factors that affect their decisions.

[...] I have a steady partner, so to speak [...] nowadays, we don't usually use [condoms] anymore. (M1)

I always use them, but if there's someone I've been seeing for a while and they settle down, I consider the possibility of not using them and doing it without [condoms] [...] because I trust the person. (M7)

You don't use them with a partner you already have or trust. And when you're in a relationship with someone, you understand that they don't have it [sex] with other people. I didn't use [condoms] with my girlfriend. (M29)

The interviewees mentioned that condom use is optional and depends on the type of emotional bond. Having a steady partner, a long-term relationship and a trusting connection with the partner increases vulnerable sexual practices. In these young people's opinion, a stable relationship means that it is impossible to acquire STIs due to the safety represented by this type of relationship.

In the participants' perception, using protective methods such as condoms can be replaced by trust in sexual partners. This finding is in line with the results of a research study on HIV and AIDS prevention with adolescents and young people, revealing that condoms are oftentimes seen as a temporary measure. This trust in partners generates a false sense of security in young men, resulting in ceasing to use condoms as a protective measure³³.

In the group of young men under study, 23 (76%) reported that they had from one to five sexual partners in the last 12 months; 21 (70%) reported using condoms in casual relationships, reducing this practice in stable/long-term relationships, in which mutual trust replaces protection. The risk perception is oftentimes reduced in long-term relationships, despite lack of absolute guarantees against STIs^{31,34}. For men, risk is frequently associated with not using condoms in situations considered risky. Not using condoms is seen as impulsive behavior, oftentimes justified by the emotions of the moment, such as excitement³³.





The STI risk perception among young people in stable relationships is influenced by mutual trust and emotional commitment, leading to risk underestimation, as they associate relationship stability with sexual safety. However, fidelity does not guarantee absolute protection against STIs. Lack of communication about sexual history and absence of regular testing can create a false sense of security. It is important to adopt an educational approach that promotes open discussion, informed decisions and access to health services for STI prevention and early diagnosis, even in stable relationships³⁴.

In this study, young people reported using condoms more frequently in casual relationships, as shown in the reports:

When I was involved with a woman [...] with a casual partner, I used condoms. (M3)

So, when I went out with other people, I kind of took precautions [using condoms]. I was afraid that she was getting involved with someone else, and that person would pass something on to her and end up passing it on to me [...] (M5)

[...] something more casual, just that day, then it's harder to trust, so I usually use condoms. (M12)

In their statements, the participants revealed that they are afraid of contracting STIs in casual relationships but tend to stop using condoms as the relationship evolves into a more committed relationship. Regarding condom negotiation, they reported not usually doing this with their partners. A number of studies show that this negotiation is more frequent in casual encounters, corroborating the findings of this study^{20,36}.

Casual relationships are defined as scenarios that take place in a single encounter, when there are different intimacy degrees, namely, when sexual intercourse occurs, it can be considered as "accidental sex" or as a "one-night stand" ^{6:2689}. Other aspects observed for not using condoms are associated with the perception of reduced sexual pleasure, discomfort and decreased erection.

[...] we actually decided to give it up, because we ended up losing pleasure. (M6)

[Sexual] intercourse is better without condoms, the sensation, which is pleasure, I think it's greater in this case. (M9)

Speaking for myself, I think they're bad, I don't feel the same pleasure using condoms/even though I know it can cause diseases, at the time, I don't want them. (M16)

However, it is important to highlight that young people tend to neglect the significant risks to which they are frequently exposed in their unsafe sexual activities, increasing the STI exposure factors³⁷. These data are in line with the literature and show the multiplicity of individual and social vulnerability factors that cause inconsistency in male condom use, with discomfort and reduced pleasure during sexual intercourse as reasons⁵. Young men's perceptions about condom use may vary according to culture, sex education, beliefs and personal experiences. Although many of them recognize condoms as an effective method for preventing STIs and unwanted pregnancies, their use is oftentimes neglected for reasons such as unawareness, use of other contraceptive methods, concern about reduced sexual pleasure, social pressure and the mistaken belief that a safe relationship eliminates other risks³⁸.

It is to be considered that, from a gender perspective, men are surrounded by social and cultural representations of masculinity, issues that reduce their inclusion in Primary Health Care services, reinforcing the concept of invulnerability^{5,20}. In this scenario, a study states that young people's sexual behavior is shaped by cultural and social pressures that frequently hinder consistent condom use¹⁵. Therefore, health professionals play a fundamental role in deconstructing these representations by promoting reflections on sexual practices and individual vulnerability³⁸.

By considering the procedural and dynamic nature of social representations related to common sense knowledge used in everyday experiences, these characteristics can offer a broader perspective for understanding how young people perceive the STI risk and, consequently, for devising more effective prevention strategies^{8,17}. Having included the SR dimension in the study on condom use allows better understanding the challenges faced by young people in adopting protective behaviors, connecting them to their cultural and social contexts.

In the STI prevention context, the young men under study constructed a network of meanings that is close to knowledge on the topic, in addition to offering alternatives for safer sexual behaviors, aiming at STI prevention. However, the naturalization of sexual practices and the affective-attitudinal components of these representations seem to hinder the adoption of safer sexual behaviors. Thus, educational work needs to recognize this network of influences and seek a greater connection between social representations and adopted practices⁶.





The results of this study show that the group under study has some knowledge about STIs and prevention practices; however, this knowledge does not always translate into concrete protective actions for their health. A study conducted with 1,256 young university students in Rio de Janeiro corroborates these findings when it discovers that the students had information about Sexually Transmitted Infections, although this did not translate into useful knowledge capable of modifying the group's sexual practices, experiencing vulnerability contexts and assuming risky sexual behaviors in their everyday lives²⁰.

The results of this research highlight the need for more effective strategies adapted to young people's reality regarding STI prevention. It is essential that interventions are integrated, addressing not only STI education but also the cultural and social barriers that affect the adoption of preventive practices. Sex education programs should include comprehensive information on all aspects inherent to sexual health, in addition to promoting open discussions about practices and beliefs that influence sexual behavior. In addition, it is essential that health services adapt to young people's specific needs, offering continuous support and updated information on STI prevention and early diagnosis. Collaboration between health professionals, educators and families can ease creating a more informed and proactive environment in terms of STI prevention^{15,17,28}.

The practices observed act as bridges between the real world and social representations and may validate or modify these representations. They can be categorized according to their conformity with social norms or occurrence frequency, manifesting themselves in different ways and possibly denoting varied objectives and contexts³².

This information is essential to understand how young people perceive STI prevention and identify aspects that require attention and intervention, both in terms of education and for the adoption of public health strategies.

Study limitations

A limitation of this study is the fact that it was developed in a single municipality from the Federation, Rio de Janeiro; it would be appropriate to replicate it in other regions to portray different perceptions and sociocultural contexts. However, the findings are in line with other studies conducted with young people.

CONCLUSION

The results show that, although the participants have some knowledge about STIs and understand that these infections can compromise physical integrity, their sexual practices do not always reflect attitudes to prevent these problems. Young people live in a social context that involves cultural norms related to the male gender, which oftentimes make them underestimate their vulnerability to STIs.

Young heterosexual men's social representations are influenced by the cultural and social contexts, in which the male gender is associated with a perception of invulnerability. This contributes for them to underestimate their vulnerability to STIs, resulting in a dissociation between knowledge related to infections and the practices adopted by the group in their everyday lives. The social representations of STIs are strongly anchored in HIV/AIDS, which generates a limited view of other Sexually Transmitted Infections.

The results indicate that prevention practices are modulated by social representations constructed around STIs and cultural norms associated with gender. Young people's SRs about STIs directly influence their decisions regarding condom use, testing and adoption of other preventive practices.

Interventions for young people should not only focus on providing information about STIs but also on transforming social representations that limit a broad understanding of infections and the adoption of consistent preventive behaviors. Public health campaigns need to address these representations, seeking to create a more positive view about sexual health and promote changes in practices, which include consistent condom use, regular testing and immunization.

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Conceptualization, T.S. and L.R.B.S.; methodology, T.S. and L.R.B.S.; software, L.R.B.S.; validation, L.R.B.S. and T.S.; formal analysis, L.R.B.S., E.C.S.B. and R.L.H. and T.S.; investigation, L.R.B.S. and E.C.S.B.; respurces, T.S.; data curation, T.S.; manuscript writing, T.S., L.R.B.S. and E.C.S.B.; review and editing, T.S., L.R.B.S. and E.C.S.B.; visualization, R.L.H., C.M.A.C. and V.R.F.F.; supervision, T.S. and L.R.B.S.; project administration, T.Sfunding, T.S. All authors read and agreed with the published version of the manuscript.

Use of artificial intelligence tools

The authors declare that no artificial intelligence tools were used in the composition of the manuscript "Prevention of Sexually Transmitted Infections among young heterosexual men: a study on social representations".

