

## Nursing students' knowledge and behavior about prevention of sexually transmitted infections

Conhecimento e comportamento de acadêmicos de enfermagem acerca da prevenção de infecções sexualmente transmissíveis

Conocimiento y comportamiento de los estudiantes de enfermería sobre la prevención de infecciones de transmisión sexual

Caroline Clemente Merenhque<sup>I</sup>, Camila Nunes Barreto<sup>II</sup>, Luiza Cremonese<sup>III</sup>, Graciela Dutra Sehnem<sup>IV</sup>, Carolina Carbonell Demori<sup>V</sup>, Eliane Tatsch Neves<sup>VI</sup>

**Abstract: Objective:** to describe nursing students' knowledge and behavior about sexually transmitted infections. **Method:** three group sessions were held in November 2019, with the participation of nursing students. The analysis of the information was based on the analysis of operative content. **Results:** the university students demonstrated knowledge about sexually transmitted infections. Regarding risk perception, they feel vulnerable, although they are aware of protection. The academic environment provides greater susceptibilities, as well as social media. During graduation, they expanded their knowledge and began to be more careful, especially when diagnosing new infections of users of the health system met in practical class and internship. **Conclusion:** the adoption of safe practices is associated with acquired knowledge and the verification of new cases of users in learning scenarios. It is essential that educational institutions, especially universities, develop educational actions towards students.

**Descriptors:** Sexually transmitted diseases; Risk; Health education; Sexual behavior; Nursing

**Resumo: Objetivo:** descrever o conhecimento e comportamento de acadêmicos de enfermagem acerca das infecções sexualmente transmissíveis. **Método:** realizaram-se três sessões grupais no período de novembro de 2019, com a participação de acadêmicos de enfermagem. A análise das informações fundamentou-se na análise de

<sup>I</sup> Nurse. Nursing Graduated from the Lutheran University of Brazil (ULBRA), Cachoeira do Sul campus. Cachoeira do Sul, RS, Brazil. E-mail: carolclemente@outlook.com Orcid: <https://orcid.org/0000-0003-3008-8173>

<sup>II</sup> Nurse. Doctoral Student in Nursing from the Nursing Postgraduate Program (PPGEnf) at the Federal University of Santa Maria (UFSM). Professor at the Nursing School of the Lutheran University of Brazil (ULBRA), Cachoeira do Sul campus. Cachoeira do Sul, RS, Brazil. E-mail: camilabarreto\_6@msn.com Orcid: <https://orcid.org/0000-0001-5638-550X>

<sup>III</sup> Nurse. Doctoral Student in the PPGEnf/UFSM. Professor at the ULBRA - Cachoeira do Sul Campus. Cachoeira do Sul, RS, Brazil. E-mail: lu\_cremonese@hotmail.com Orcid: <https://orcid.org/0000-0001-7169-1644>

<sup>IV</sup> Nurse. PhD from the PPGEnf/UFRGS. Professor at the Nursing Department and Postgraduate Program of the Federal University of Santa Maria, Santa Maria, RS, Brazil. E-mail: graci\_dutra@yahoo.com.br Orcid: <https://orcid.org/0000-0003-4536-824X>

<sup>V</sup> Nurse. PhD in Health Sciences from the Federal University of Pelotas. Nursing Chief Hospital Guarnição de Bagé, Bagé, RS, Brazil. E-mail: carolinademori@gmail.com Orcid: <https://orcid.org/0000-0002-5153-549X>

<sup>VI</sup> Nurse. PhD in Nursing from the Anna Nery Nursing School of the UFRJ. Postdoctoral degree in Public Health Nursing from the Nursing School of Ribeirão Preto of the USP. Professor at the Nursing Department and Postgraduate Program of the Federal University of Santa Maria, Santa Maria, RS, Brazil. E-mail: eliane.neves@ufsm.br Orcid: <https://orcid.org/0000-0002-1559-9533>

conteúdo operativa. **Resultados:** os universitários demonstraram possuir conhecimento sobre as infecções sexualmente transmissíveis. Em relação à percepção de risco, sentem-se vulneráveis, embora tenham conhecimento quanto à proteção. O meio acadêmico proporciona maiores susceptibilidades, assim como as mídias sociais. Durante a graduação, ampliaram seus conhecimentos e passaram a ter mais cuidado, principalmente ao diagnosticar novas infecções de usuários do sistema de saúde atendidos em aula prática e estágio. **Conclusão:** a adoção de práticas seguras está associada ao conhecimento adquirido e a verificação de novos casos de usuários em cenários de aprendizagem. É essencial que as instituições de ensino, especialmente as universidades, desenvolvam ações educativas direcionadas aos discentes.

**Descritores:** Doenças sexualmente transmissíveis; Risco; Educação em saúde; Comportamento sexual; Enfermagem

**Resumen: Objetivo:** describir el conocimiento y el comportamiento de los estudiantes de enfermería sobre las infecciones de transmisión sexual. **Método:** en noviembre de 2019 se celebraron tres sesiones grupales, con la participación de estudiantes de enfermería. El análisis de la información se basó en el análisis del contenido operativo. **Resultados:** los estudiantes universitarios demostraron conocimientos sobre infecciones de transmisión sexual. En cuanto a la percepción del riesgo, se sienten vulnerables, aunque son conscientes de la protección. El entorno académico proporciona mayores susceptibilidades, así como las redes sociales. Durante la graduación, ampliaron sus conocimientos y comenzaron a ser más cuidadosos, especialmente cuando se diagnostican nuevas infecciones de usuarios del sistema de salud que asistieron en clase práctica y pasantías. **Conclusión:** la adopción de prácticas seguras se asocia con los conocimientos adquiridos y la verificación de nuevos casos de usuarios en escenarios de aprendizaje. Es esencial que las instituciones educativas, especialmente las universidades, desarrollen acciones educativas dirigidas a los estudiantes.

**Descriptor:** Enfermedades de transmisión sexual; Riesgo; Educación en salud; Comportamiento sexual; Enfermería

## Introduction

Sexually transmitted infections (STIs) are transmitted mainly through sexual contact, without the use of condoms, with a person who is infected. Still, in some situations, even with the use of condoms, transmission can occur, as in cases where condoms break, semen ejaculation in the mouth and contact in places that the condom does not cover. In this case, the skin and coatings of the mucosa, vagina and rectum are gateways of microorganisms (bacteria, viruses or parasites). Despite the several strategies for the combined prevention of these diseases, such as condom use, rapid testing, immunization (in cases of human immunodeficiency virus (HIV) and hepatitis B), pre- and post-exposure prophylaxis to HIV and other STIs, new cases persist in different age groups and populations.<sup>1</sup>

Among the more than thirty pathogenic agents transmitted by unprotected sexual relations, eight cause the main demands in the health field due to the magnitude and extent of

the diseases caused to populations. Of the eight infections, four are curable: syphilis, chlamydia, trichomoniasis and gonorrhea. Although not curable, the other four can be controlled and treatable with the use of medications and health follow-up: human immunodeficiency virus (HIV), hepatitis B, herpes and human papilloma virus (HPV).<sup>2-3</sup>

STIs are predominant among young people, who are part of the population largely exposed to infectious agents. The early sexual discovery and initiation, related to the practice of unsafe sex, such as multiple partners, sexual relations under the influence of alcohol or drugs, inconsistent use of condoms, weaknesses in health education actions, and lack of open dialogue on the subject, contribute to the group becoming one of the portions of the population most susceptible to contracting diseases, especially those transmitted by sexual contact. Currently, most new HIV infections affect young people between 15 and 24 years of age.<sup>4-5</sup>

With the university, the need to seek new friendships and try to adapt to the current routine of commitments focuses on young people. With activities previously not experienced and with greater independence and freedom, environments of distraction and fun appear to ease tension. In this follow-up, many university students seek at parties and events the necessary distraction to face this whirlwind of events, driving different forms of behavior and life habits.<sup>6</sup>

Despite the exposures experienced, they do not consider themselves vulnerable and stigmatize the person who contracts an STI as “marginal”, as if only the “others” were exposed. The university population in the health area often does not show concern about STIs, a fact that does not necessarily apply unawareness, which is one of the risks for developing infections. Furthermore, most university students are unaware of the main symptoms, forms of transmission and prevention, mainly, of infections of high occurrence and low approach in the media.<sup>7-8</sup>

Concerning the knowledge and behavioral aspects of young people, higher education institutions (HEIs) have an essential role in the education and training of their students. The university is responsible for generating future professionals qualified to perform educational

actions that recognize the true needs, wills and aspirations of individuals susceptible to some type of STIs and, mainly, understand the vulnerabilities to which they are exposed.<sup>7</sup>

Prevention is the fundamental strategy for controlling the transmission of STIs. The use of condoms and the introduction of educational measures and activities, through constant information, are aspects that contribute to reducing increasing rates of infections. Also important are the combined prevention strategies such as rapid testing, access to treatment soon after confirmation of diagnosis, prophylaxis for these diseases and immunizations available. Not to mention the importance of knowing the profile of sexual education of individuals, in addition to the reality of these young people, so that it becomes easier to exchange information and clarifications about the subject. This care allows a better work with this population and reduces the burden on the health system and complications related to the quality of life of the young population.<sup>9</sup>

Based on these considerations, the relevance of the theme is emphasized, since reality has shown that initiatives in the university environment are still discrete for the dissemination of knowledge among its students in relation to STIs. In addition to young people being in a susceptible age group, they will be future professionals and therefore opinion makers in society. Thus, the problem of this study involves the level of knowledge of this population regarding the theme and how they behave in relation to the prevention of STIs.

Thus, the research question is: what is the knowledge and behavior of nursing students about STIs? The aim of the study is to describe the knowledge and behavior of nursing students about STIs.

## **Method**

This is a research of qualitative approach and descriptive character. The technique used for the production of information was used to understand a subject in depth through a collective approach. The group debate allows participants to exchange, agree or disagree on a particular

subject. Based on the recommendations of the focus group technique, there was a group moderator to stimulate discussions among participants, as well as to intervene when necessary and an observer to record the perceptions of each group session.<sup>10</sup>

The population consisted of 143 nursing students, eight of whom filled out the research participation form. Of these, seven met the inclusion criteria, and after the first meeting, one of the participants had to leave the research due to the organization of the agenda, totaling six participants in the other meetings. The study scenario was a university campus of a private institution in inland Rio Grande do Sul, where classes took place during the night shift.

The participants were randomly selected, through invitation and interest of the students of the course to participate in the study. The inclusion criteria included students of the nursing course of this institution, from the third semester (period when the subjects addressing the theme in question begin) and aged over 18 years. Exclusion criteria were: nursing graduate students who were absent or took a time off from the course. The disclosure occurred through social media (course groups on WhatsApp and Facebook) and, later, by completing an online form of interest to participate in the research, which should be filled with age, semester, telephone and e-mail, through which the researcher made contact to schedule the group sessions.

The information was produced in November 2019, and three group meetings were developed. In order to promote the discussion about the focus theme, thematic guides were elaborated for the construction of group sessions, according to the research purpose. This tool served as an orientation, systematizing issues and objectives for each meeting. To encourage discussion among university students, the application of strategies that promoted their active participation was used. The debate was closed based on the data saturation criterion, which consists of the repetition of the statements.<sup>11</sup> It is noteworthy that the execution of the groups respected the ethical precepts of researches with human beings, as well as the signing of the Informed Consent Form by the participants. Below are the thematic guides used in the group session:

The first meeting aimed to address what STIs are and whether being a nursing student influences risk behavior and prevention. Figures related to the university environment, STIs, gender, prevention and risk were used in order to stimulate exchanges between participants.

The second meeting aimed to discuss concepts of youth and risk; Gender and STIs; Risk behavior and/or prevention. The session began with a triggering video about lesbian sex. Moreover, the researcher brought myths and truths about prevention and risk behavior.

The third meeting aimed to represent strategies to strengthen actions to prevent STIs. In this meeting, the productions of previous meetings were summarized and, from a brown paper production, strategies for reducing the rates related to infections and care practices to strengthen prevention actions in the academic context were discussed in the group.

It is noteworthy that, in the execution of the focus groups, it was agreed that the information discussed would be kept confidential by the group and used only for academic purposes. In addition, the ideas and discussions provoked were collectively synthesized, in agreement with all parties and accompanied by the moderator and observer throughout the sessions. The meetings took place in a specific room on the selected campus and each session lasted around 1h30min.

The information collected was recorded on a smartphone, with the authorization of the participants, and then transcribed for analysis and interpretation of the researcher. The analysis of the information was based on the operative content analysis, which comprises the following phases: pre-analysis, exploration of the material, treatment and interpretation of the data.<sup>11</sup> For the purposes of the study, nursing students will be identified as NS and with random numbering.

The study was approved by the Research Ethics Committee of the research institution on October 30, 2019, and was registered under the opinion number 3,678,235 and CANS 23755119.2.0000.5349. Furthermore, the precepts of Resolution n. 466/12 of the National Health

Council of the Ministry of Health, which govern researches involving human beings, were uninterrupted throughout the study.

## Results

Among the participants, one was male and six, female. There was a fifth semester student, two from the eighth and the others from the tenth, aged between 21 and 38 years. The information was organized into four thematic categories: vulnerabilities related to STIs experienced by university students; influence of knowledge acquired in graduation on sexual practices and risk behaviors; sexual diversity and prevention of STIs; strategies for preventing STIs in the academic environment.

### Vulnerabilities related to STIs experienced by university students

When relating STIs and the university public, based on the statements of nursing students, there were notes about vulnerabilities and susceptibilities. The participants also highlight the use of psychoactive substances:

*Because they are young [...] it seems like nothing is going to happen to me.*  
(NS2)

*I think that because of this person's susceptibilities to a situation that they may not control well or not think very well about what they are doing, thinking about youth [...].* (NS5)

*A matter of drug use, we have the issue of becoming senseless [...] no longer having the perception of the world around [...] alcohol too, youth does not tend to control the alcohol intake.* (NS3)

The students reported that, when reflecting on STIs, they most often believed it to be a situation that would not happen to them, as if they were protected from the risks when exposed. They also highlighted youth as a process of maturation, presenting some weaknesses in their

decisions. Moreover, another relevant factor is the uncontrolled use of alcohol and other drugs, which may lead to a higher risk of STIs.

Condom use was associated with a protective factor, but there is still fear of not using on certain occasions. That is, students are aware of the risk, but end up not adopting safe sexual behaviors at times:

*Even protecting myself, I feel vulnerable. [...] my mother always instructed me to use condoms to avoid STIs, not to prevent children. So it has been a habit of mine, since very young, I have always used, I do not remember ever not using it, and yet I am fearful. (NS4)*

*I behave calmly, but a longtime ago I had sex without a condom with a stranger, no way am I denying it. I get scared sometimes. (NS6)*

*I think after becoming one [couple], everything got easier. We take care, but there was a risk and there is always fear behind it. For me, there has always been at least. (NS5)*

The participants reported the feeling of “fear” in certain situations and, most use condoms to prevent STIs. However, despite being aware of the risks, there have been situations of sexual exposure without the use of the barrier method. Another point highlighted was the non-use of condoms in serious and lasting relationships, justified by the trust acquired in the partner. Nevertheless, this aspect did not leave them calm.

Furthermore, there is a chance of extramarital relationships without the use of condoms. Thus, the non-understanding of the vulnerability itself, associated with the couple's fidelity, can induce risk behavior:

*[...] many times, you have a stable relationship with a person and you end up maintaining an extramarital relationship and [...] people end up not using condoms because they are having a longer lasting relationship, only it is still a risk because you do not know if that person you are relating to has a relationship only with you. (NS1)*



*The neighbor's grass is greener and we end up grazing once in a while. If you have an extramarital relationship, you end up putting yourself at risk.* (NS3)

Regarding the academic environment and the occurrence of a more active sexual life, the students highlighted the influence of the environment on relationships. Cultural diversity, combined with the eager to live intensely, leads to changing behaviors:

*[...] it certainly influences a lot [...] because they are young people many times of your age, who usually have not come out yet and want to find out. Then in college, you find out and end up living new experiences, with unknown people, with people outside your town and come to college.* (NS4)

*[...] college ends up being your excuse [...] In the heat of the moment you get the chance and you embrace the opportunity. You often do not even think about it, you do not leave the house with a condom in your purse, you do not leave the house waiting.* (NS1)

In addition to increasing the number of contacts, the college is cited as a refuge and a space for new discoveries. The entry into this environment and social group, associated with the development of independence in this phase of life, causes students to put themselves in situations of risk and vulnerability. In addition to exposure to new experiences, they are also exposed to new influences and end up being open to them.

### **Influence of knowledge acquired in graduation on sexual practices and risk behaviors**

When asked about sexual behavior after graduation, more specifically in the Nursing course, the participants show influence in their statements. The new knowledge acquired in the training process is able to support new practices and thoughts:

*Here we hear a lot more about it and also witness cases.* (NS7)

*Knowledge generates awareness. At first, it may not be, but after so much you see, the much of situations you get to know, slowly modifies the thought. (NS5)*

The curricular internships and practical classes in primary care were major influencers regarding sexual behaviors. The involvement of students with the community provides reflections on stigmas:

*Before the internship in primary care [sex without a condom]. Not after that! No way. At the internship, we see a lot, and as I said, there is no label, the person will not come in and say "Hi, how are you? Do you want to go out with me? I have Syphilis." The person will not tell you. [...] And then in a little while the person is infected and [...] then you see that it is not just the person who lives there on the margins of society, it is not just the sex worker on the corner. (NS1)*

Prior to the university knowledge acquired at the academy, the young people reported having unprotected sex, but after practical classes and internships, they became aware of the subject. The students, as multipliers of prevention, were also encouraged to take a more committed posture regarding their actions.

### **Sexual diversity and prevention of STIs**

Based on questions related to health and the prevention of STIs in the lesbian, gay, bisexual, transvestite and intersexual (LGBTI+) population, and encouraging the discussion through video about lesbian sex, students should discuss, if they knew, about how prevention is performed in this type of relationship. It is observed that there is still misinformation about the theme:

*[...] it is not a condom instituted, made in factory, "right", but it would be the application of a PVC film, a plastic film on the vulva, which provides certain safety because it will not have the contact of secretion, so, on the plastic film,*

*two women can have sex, which would be a way of prevention. (NS5)*

*I have no idea about it. (NS1)*

Regarding the care of this population, the participants revealed some failures that occur during this process. One should seek to deconstruct the stigmas of prejudice that often end up promoting social exclusion:

*There is a very large barrier to be overcome, because we have the acquired knowledge, but there is that prejudice issue, [...] there is also a communication barrier, between the LGBTI+ population and health professionals. [...], then it is very difficult to communicate to be able to expose, talk about STIs, to be able to talk about preventive methods, a matter of periodic monitoring [...] (NS3)*

*You have to have an empathy to meet this population, you have to know how to embrace them and not judge in advance of when they will get there. (NS6)*

*[...] the girl came for a rapid test [...] then we started guiding her, we kept saying “your boyfriend, your boyfriend”, until she said no, she had no boyfriend, she had a girlfriend. Then we do not know what to say, because we are not prepared for it, it is a failure. You are not ready. (NS1)*

Concerning education, the university students revealed to be a subject little addressed in the academy. This contributes to the occurrence of discriminatory practices, which makes the institution end up becoming a not so receptive place for those students who have non-normative sexuality and gender:

*I think it is little addressed. I hope it to always improve, to address more [...]. We know it because we hear colleagues commenting “Oh, that is so boring, I cannot stand to hear a professor talking about it anymore”. The LGBT population, you are not sure if they come, when they seek the service. Are they seeking the rapid test? How often? [...] so, I think we have to work it more and more and the college still loses a little, because there*

*are still people who complain.* (NS5)

*I have seen from college mates [when forming groups], who stand up and “No way am I going to be in the same group as these faggots”. He got up, grabbed his things and left. So think about it, is this the professional of tomorrow?*(NS1)

The lack of subjects and spaces for discussion on the subject ends up generating a reproduction of discrimination on the part of colleagues. One should seek an education that does not reproduce prejudices of sexuality and gender, which requires a change in university curricula.

### **Strategies for preventing STIs in the academic environment**

The participants presented strategies to strengthen STI prevention actions at the academic level. The debate on the subject in a joint action with the participation of students can guide the behavior and decision-making of those involved:

*To train some students to develop an action with other university students. [...] a support group for the entire university. [...] I do not know if it would be suitable to offer rapid test... also educational material.* (NS2)

*I thought about doing this, at the beginning of the classes [of the university], which is a peak time, hold people 5 minutes: “Look, guys [...] today we have ‘x’ cases of such STIs, ‘x’ cases of HIV, ‘x’ cases of Syphilis” [...] Show that we are exposed and what we are doing to change it [...]. Are we helping to spread more or what? [...] offer [rapid test] at various times of the day. Having a well-delimited schedule including other shifts, because some people get embarrassed.* (NS5)

*Strengthening actions at schools, especially in early grades.* (NS7)

Addressing the theme with university students from other courses is of great importance,

since students who are not from the health area rarely have subjects addressing STIs. The lack of guidance and unawareness of the risks contribute to the vulnerability of these individuals.

## Discussion

Common characteristics of youth, such as immaturity and inexperience, for example, can cause harmful consequences to the health and life of these individuals, who are often unable to identify the risks to which they are exposed and end up neglecting the importance of protective attitudes.<sup>4</sup> The statements unveiled that young people, regardless of gender, are a vulnerable portion in all societies in the globalized world. Situations such as alcohol and drug abuse are relevant for health care provision, since they determine some of the most common vulnerabilities in this phase of life.<sup>12</sup>

The young population, especially Brazilian university students, is easily involved with the consumption of alcoholic beverages and other illicit drugs, either by easy access, low cost or even by social pressure from friends and/or colleagues.<sup>13</sup> When using these substances, most of these people end up having a decreased perception of sexual behavior and assume a risk practice before STIs.

As relationships become more stable, some couples end up abandoning condom use, which is currently the only method that protects against most STIs, even though it is not 100% efficient.<sup>14</sup> This relaxation of use ends up leaving individuals more susceptible to acquiring some STIs, since the person may be infected but unaware of it, which may cause the transmission to the spouse.

The fact of being in a stable relationship makes students think that they are not vulnerable to acquiring some type of STIs, which is why they do not adopt prevention measures. Another point addressed is the extramarital relationships that, in addition to bringing risks for those who maintain this type of relationship, also result in harm to the sexual partners of those involved.

Thus, although the betrayal/contagion relationship is present at various times, many

couples do not identify the personal risk to STIs, causing condom use to continue to be left aside in stable relationships, as they feel protected during the relationship. However, in extramarital relationships, condoms, at times, are also not used.<sup>15</sup>

Corroborating the findings, it is common that, upon joining higher education, young people move away from their families, going to live in other cities. The new obligations bring independence and expectations to the day-to-day decisions, thus, they face new challenges and run into situations that shape their personality. These new constructions lead young people to act more autonomy, besides having to create and respect their own limits, which often leads to difficulties, stress and exposure of university students to health risk practices.<sup>6</sup>

The students revealed that being a nursing student influences sexual practices. The knowledge obtained during the course interferes with self-care, and the situations experienced in the academy are responsible for transforming this vision, leading to greater awareness and, consequently, prevention behaviors. Thus, the students could notice that the person infected with some STI cannot be stigmatized as belonging to a certain group, but rather that risk behaviors are present in all individuals in society, regardless of sex, religion, profession, etc., demystifying the false sense of safety based on the discourse that only “certain populations” could be contaminated.

Health professionals, especially nurses, need to appropriate the essential knowledge for the performance of care and reduction of stigmas related to people with STIs, which can be fostered during graduation and throughout professional life, in processes of continuing education. For the effective care of this patient, the professional must have a specific understanding of him/her and the needs demanded at the moment.<sup>16</sup> Regarding Primary Health Care (PHC), the Basic Health Unit (BHU) is the main place for the care of users with STIs/AIDS, where the nursing professional is responsible for health prevention and promotion, contributing to the improvement of quality of life to the whole public in an equal way, and

should leave aside their own beliefs and prejudices.

The statements revealed that, despite knowing one of the main methods of prevention, there is still lack of information on the subject. The promotion of debates in this direction, the experience in real practical scenarios, during academic internships, in order to promote clear and critical thinking, clearly affect academic training. In addition to the academic environment, PHC also stands out as a special area to address and disseminate guidelines, in which the health professional should be attentive to receive and provide information on condom use.

Unprotected oral sex manifests a threat to the development of STIs, such as trichomoniasis, vaginosis, HPV, and genital herpes. In the case of sex between two women, it is not different, because there is the exchange of vaginal secretions in the course of alternated masturbation, tribadism (vagina with vagina) and the use and sharing of erotic toys.<sup>17</sup> There is still the association of STIs with sexual involvement with men, which makes the exclusive relationship between women be seen as a protective factor, not requiring specific care.

Currently, there is no specific protection for oral sex in women in the health network, however, the use of films for this practice, which can be condoms or films such as protective plastic or gloves, correspond to efficient techniques for prevention.<sup>18</sup> Therefore, there is a need to develop materials more appropriate to the sexual practices of this population, produced based on the debate regarding the particularities of sexuality so that they are effective and viable, both in prevention and in adapting their use to reality.

The care for the LGBTI+ population is still a challenge to be overcome. There is a significant fragility in the care, sometimes discriminatory and heteronormative, practiced by professionals. Among the students, they are unprepared to meet this group, which contributes to the difficulty of access, increasing the vulnerability to which the subjects are exposed. In view of this, it is necessary to reformulate the nursing curricula so that, during graduation, the student is prepared to perform the necessary care, in a humane and egalitarian way, to this population.

The public in question are resistant to seek health services, which, in summary, reveals, in addition to the discriminatory scenario present, organized from a presupposed heterosexuality, the lack of qualification and the prejudice of health professionals to accept the demand. Since they feel unwelcomed and that their demands are not fulfilled, they end up distancing from health services.<sup>19</sup>

The participants reported that there was difficulty and prejudice among their colleagues to deal with this population, a factor responsible for preventing the LGBTI+ group from accessing health. The importance of increasingly working on this subject is emphasized, so that the university and the nursing course are an open and inclusive space for all and no longer a way of exclusion and prejudice, because, in addition to the existence of students belonging to the LGBTI+ community, there are also future professionals who will provide care to this population.

In this context, the restructuring of health services for the inclusion of the LGBTI+ population depends on changes in the way professionals think and act, as well as future health professionals. Cultural issues arising from the cis-heteronormative pattern induce the care provided by workers in the area, which leads them to meet all clients as if they were heterosexual, generating situations of discrimination and prejudice.<sup>20</sup>

The strengthening of strategies within the university is an initiative that allows students to talk about sexuality and receive tips, in addition to providing a greater number of information about STIs. Providing new spaces and tools for the academic population's prevention is an excellent way to promote sex education and prevention.

The importance of the school, as well as the university, has been emphasized as an environment of socialization, where communication between friends and educators makes these places seen as places to deal with issues related to STIs, as well as health promotion practices.<sup>21-</sup>

<sup>22</sup> Health educational actions have a positive effect as individuals begin to take care of themselves. Since they receive knowledge prior to their decisions, they often become subjects



aware of their practices, reducing risky behaviors and taking on safe sexual practices, protecting themselves against STIs.<sup>23</sup>

As a limitation of the study, there stands out the data from only one institution and a specific course. Thus, the study should be expanded to other students and other educational institutions in the state and country.

## Conclusion

The nursing students of the researched institution have knowledge about STIs, but feel vulnerable and exposed to risk situations. They reported risky behaviors, such as non-use of condoms in a stable and lasting relationship.

Entering the Nursing course provided the students with greater knowledge about the theme and made them rethink their own risk behavior and prevention practices. However, this knowledge is not a determining factor for condom use in all sexual relations.

It is noteworthy the need to implement health education actions in the academic environment for all courses, addressing topics related to STIs, LGBTI+ population, stigmas, prejudice and discrimination. In addition to self-care, knowledge is also an indispensable factor in the care of others, since the nursing professional will act directly with people who live with or at risk of contracting some STIs.

Corroborating the strategies demonstrated by the students during the research, it is advisable that educational institutions, especially universities and nursing courses, develop educational practices with university students through projects of extension and inclusion of subjects related to sexuality. Thus, in addition to discussing and promoting reflection on the behaviors and vulnerabilities to which they are exposed, they contribute to the clarification and reduction of risks of this strongly vulnerable population.

## References

1. Ministério da Saúde (BR), Secretaria de Vigilância em Saúde. Departamento de DST, Aids e Hepatites Virais. Protocolo clínico e diretrizes terapêuticas para a atenção integral às pessoas com Infecções Sexualmente Transmissíveis. Brasília (DF): Ministério da Saúde; 2020.
2. Hughes G, Field N. The epidemiology of sexually transmitted infections in the UK: impact of behavior, services and interventions. *Future Microbiol.* 2015;10(1):35-51. doi: 10.2217/fmb.14.110
3. World Health Organization (WHO). Sexually transmitted infections (STIs): the importance of a renewed commitment to STI prevention and control in achieving global sexual and reproductive health. Geneva (CH): WHO; 2015.
4. Ministério da Saúde (BR), Secretaria de Vigilância em Saúde. Departamento de DST, Aids e Hepatites Virais. Boletim Epidemiológico HIV/Aids. Brasília (DF): Ministério da Saúde; 2016.
5. Dantas KTB, Spindola T, Teixeira SVB, Lemos ACM, Ferreira LEM. Young academics and the knowledge about sexual transmitted diseases - contribution to care in nursing. *Rev Pesq Cuid Fundam.* 2015;7(3):3020-36. doi: 10.9789/2175-5361.2015.v7i3.3020-3036
6. Borges MR, Silveira RE, Santos AS, Gazi U. Comportamento sexual de ingressantes universitários. *Rev Pesq Cuid Fundam.* 2015;7(2):2505-15. doi: 10.9789/2175-5361.2015.v7i2.2505-2515
7. Fonte VRF, Spindola T, Lemos A, Francico MTR, Oliveira CSR. Conhecimento e percepção de risco em relação às infecções sexualmente transmissíveis entre jovens universitários. *Cogitare Enferm.* 2018;23(3):e55903. doi: 10.5380/ce.v23i3.55903
8. Castro EL, Caldas TA, Morcillo AM, Pereira EMA, Velho PENF. O conhecimento e o ensino sobre doenças sexualmente transmissíveis entre universitários. *Ciênc Saúde Colet.* 2016;21(6):1975-84. doi: 10.1590/1413-81232015216.00492015
9. Monteiro SS, Brandão E, Vargas E, Mora C, Soares P, Daltro E. Discursos sobre sexualmente em um centro de testagem e aconselhamento (CTA): diálogos possíveis entre profissionais e usuários. *Ciênc Saúde Colet.* 2014;19(1):137-46. doi: 10.1590/1413-81232014191.1906
10. Sehnem GD, Alves CN, Wilhelm LA, Ressel LB. Utilização do grupo focal como técnica de coleta de dados em pesquisas: relato de experiência. *Ciênc Cuid Saúde.* 2015;14(2):1194-200. doi: 10.4025/ciencucuidsaude.v14i2.21960
11. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 14ª ed. São Paulo: Hucitec; 2014.
12. Ministério da Saúde (BR), Comissão Nacional de Incorporação de Tecnologias no SUS. Protocolo de Diretrizes Terapêuticas, Infecções Sexualmente Transmissíveis. Relatório de Recomendação [Internet] Brasília (DF): Ministério da Saúde; 2015 [acesso em 2020 abr 19]. Disponível em:

[http://conitec.gov.br/images/Consultas/Relatorios/2015/Relatorio\\_PCDT\\_IST\\_CP.pdf](http://conitec.gov.br/images/Consultas/Relatorios/2015/Relatorio_PCDT_IST_CP.pdf)

13. Mola R, Pitangui ACR, Barbosa SAM, Almeida LS, Sousa MRM, Pio WPL, et al. Condom and alcohol consumption in adolescents and youth. *Einstein*. 2016;14(2):143-51. doi: 10.1590/S1679-45082016AO3677
14. Delatorre MZ, Dias ACG. Conhecimentos e práticas sobre métodos contraceptivos em estudantes universitários. *Rev SPAGESP [Internet]*. 2015 [acesso 2020 abr 25];16(1):60-73. Disponível em: <http://pepsic.bvsalud.org/pdf/rspagesp/v16n1/v16n1a06.pdf>
15. Horan SM, Cafferty LA. Condom communication: reports of sexually active young adults' recent messages with new partners. *J Health Commun*. 2017;22(9):763-71. doi: 10.1080/10810730.2017.1355420
16. Cordeiro JKR, Santos MM, Sales LKO, Morais IF, Dutra GRS. School teenagers about STD/AIDS: when knowledge does not follow safe practices. *Rev Enferm UFPE On Line [Internet]*. 2017 [cited 2020 Apr 25];11(suppl 7):2888-96. Available from: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/9014/19197>
17. Rufino AC, Madeiro A, Trinidad A, Santos R, Freitas I. Sexual practices and health care of women who have sex with women: 2013-2014. *Epidemiol Serv Saúde*. 2018;27(4):e2017499. doi: 10.5123/s1679-49742018000400005
18. Knight DA, Jarrett D. Preventive health care for women who have sex with women. *Am Fam Physician [Internet]*. 2017 [cited 2020 Apr 20];95(5):314-21. Available from: <https://www.aafp.org/afp/2017/0301/p314.pdf>
19. Fernandes B. Educação popular em saúde: um diálogo da sociedade civil com os postos de saúde em Goiânia. *Tempus (Brasília)*. 2017;11(1):29-39. doi: 10.18569/tempus.v11i1.2358
20. Araujo LC, Penna LHG, Carinhonha JI, Costa CMA. O cuidado às mulheres lésbicas no campo da saúde sexual e reprodutiva. *Rev Enferm UERJ*. 2019;27:e34262. doi: 10.12957/reuerj.2019.34262
21. Fonte VRF, Spindola T, Francisco MTR, Sodr e CP, Andr e NLNO, Pinheiro CDP. Jovens universit rios e o conhecimento acerca das infec es sexualmente transmiss veis. *Esc Anna Nery*. 2018;22(2):e20170318. doi: 10.1590/2177-9465-ean-2017-0318
22. Abreu LDP, Mendonça GMM, Ara jo AF, Torres RAM, Silva MRF, Fialho AVM. Cuidado de enfermagem na rela o saber/poder e sexualidade junto a juventude escolar via web r dio [Internet]. *Rev Enferm UFSM*. 2019 [cited 2020 Apr 19];9(e54):1-21. Available from: <https://periodicos.ufsm.br/reufsm/article/view/33663>
23. Grangeiro A, Kuchenbecker R, Veras MA. Novos m todos preventivos para o HIV: reconhecendo as fronteiras entre a autonomia dos indiv duos e as pol ticas p blicas. *Rev Bras Epidemiol*. 2015;18(Suppl 1):1-4. doi: 10.1590/1809-4503201500050001

**Chief Scientific Editor:** Cristiane Cardoso de Paula

**Associate Editor:** Carine Vendruscolo

### **Corresponding author**

Camila Nunes Barreto

E-mail: [camilabarreto\\_6@msn.com](mailto:camilabarreto_6@msn.com)

Address: Martinho Lutero, 301 – Bairro Universitário

CEP: 96501595

### **Authorship contributions**

#### **1 – Caroline Clemente Merenhque**

Conception or design of the study/research, data analysis and/or interpretation

#### **2 – Camila Nunes Barreto**

Conception or design of the study/research, data analysis and/or interpretation and final Review with critical and intellectual participation in the manuscript

#### **3 – Luiza Cremonese**

Data analysis and/or interpretation and final Review with critical and intellectual participation in the manuscript

#### **4 – Graciela Dutra Sehnem**

Data analysis and/or interpretation and final Review with critical and intellectual participation in the manuscript

#### **5 – Carolina Carbonell Demori**

Data analysis and/or interpretation and final Review with critical and intellectual participation in the manuscript

#### **6 – Eliane Tatsch Neves**

Data analysis and/or interpretation and final Review with critical and intellectual participation in the manuscript

### **How to cite this article**

Merenhque CC, Barreto CN, Cremonese L, Sehnem GD, Demori CC, Neves ET. Nursing students' knowledge and behavior about prevention of sexually transmitted infections. Rev. Enferm. UFSM. 2021 [Access in: Year Month Day];vol.11 e4: 1-20. DOI: <https://doi.org/10.5902/2179769243700>