

Sexually transmitted infections in college students: A literature review

Infecções sexualmente transmissíveis em universitários: Uma revisão de literatura

Infecciones de transmisión sexual en universitarios: Una revisión de la literatura

RESUMO

Objetivo: Realizar o levantamento bibliográfico para verificação do comportamento sexual de risco em estudantes universitários. Método: trata-se de uma revisão de literatura nas bases de dados: Medical Literature Analysis and Retrieval System Online (MEDLINE via PubMed), Ebsco, Literatura Latino-Americana e do Caribe em Ciências da Saúde, Web of Science e SCOPUS. Resultados: Foram encontrados 52 artigos, resultando em 10 amostras publicadas entre os anos de 2008 e 2017. Discussão: Com a conclusão do ensino médio, muitos jovens ingressam nas instituições de ensino nível técnico e superior, vivenciando uma fase de novas experiências. Diante da liberdade, entram em grupos sociais, se relacionam, e, apesar de alguns praticarem sexo seguro, outros apresentam comportamentos de risco. Conclusão: Existe uma necessidade de intervenções e educação em saúde para todas as faixas etárias sobre as circunstâncias que acarretam a transmissão de Infecções sexualmente transmissíveis e métodos de prevenção.

DESCRIPTORIOS: Doença sexualmente transmissível; Estudantes; Drogas ilícitas; Comportamento de risco.

ABSTRACT

Objetivo: Realizar un levantamiento bibliográfico para verificar conductas sexuales de riesgo en estudiantes universitarios. Método: se trata de una revisión bibliográfica en las siguientes bases de datos: Medical Literature Analysis and Retrieval System Online (MEDLINE vía PubMed), Ebsco, Latin American and Caribbean Literature in Health Sciences, Web of Science y SCOPUS. Resultados: Se encontraron 52 artículos, resultando 10 muestras publicadas entre 2008 y 2017. Discusión: Con la finalización de la enseñanza media, muchos jóvenes ingresan a instituciones de educación técnica y superior, viviendo una etapa de nuevas experiencias. Frente a la libertad, ingresan a grupos sociales, se relacionan entre sí y, aunque algunos practican sexo más seguro, otros presentan conductas de riesgo. Conclusión: Existe la necesidad de intervenciones y educación sanitaria para todos los grupos de edad sobre las circunstancias que conducen a la transmisión de infecciones de transmisión sexual y métodos de prevención.

DESCRIPTORS: Enfermedad de transmisión sexual; estudiantes; Drogas ilícitas; Comportamiento de riesgo.

RESUMEN

Objective: To carry out a bibliographic survey to verify risky sexual behavior in university students. Method: this is a literature review in the following databases: Medical Literature Analysis and Retrieval System Online (MEDLINE via PubMed), Ebsco, Latin American and Caribbean Literature in Health Sciences, Web of Science and SCOPUS. Results: 52 articles were found, resulting in 10 samples published between 2008 and 2017. Discussion: With the completion of high school, many young people enter technical and higher education institutions, experiencing a phase of new experiences. Faced with freedom, they enter social groups, relate to each other, and, although some practice safer sex, others present risky behaviors. Conclusion: There is a need for interventions and health education for all age groups about the circumstances that lead to the transmission of sexually transmitted infections and prevention methods.

DESCRIPTORS: Sexually transmitted disease; students; Illicit drugs; Risk behavior.

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INTRODUÇÃO

Sexually Transmitted Infections remain a public health problem worldwide. ⁽¹⁾ The epidemiological dynamism of STIs comprises numerous conditioning factors of vulnerability to the individual or community that share common characteristics. Young people are considered a vulnerable population due to numerous characteristics, among them, the early initiation of sexual intercourse, the multiplicity of partners, sex with people of the same sex, sexual relations under the influence of licit and illicit drugs and the inconsistent use or even the lack of condoms. ⁽²⁾

In Brazil, between 1999 and 2019, 247,890 cases of Hepatitis B were reported in the Information System of Notifiable Diseases (SINAN), of these 10.2% of the cases detected in the Northeast region; in the same period, there were 384,284 cases of Hepatitis C, of which 8.3% were in the Northeast. ⁽³⁾ In the state of Paraíba, from 2007 to 2021, 5,737 cases of viral hepatitis were reported in SINAN, of which 1,670 (29.11%) were cases of Hepatitis B and 1,148 (20.01%) of Hepatitis C. ⁽⁴⁾

With regard to cases of syphilis, in 2019, 152,915 cases of acquired syphilis, 61,127 cases of syphilis in pregnant women and 24,130 cases of congenital syphilis were reported in Brazil. In the Northeast region, in 2019, 24,163 ac-

quired syphilis were detected, of these 1,718 cases were reported in Paraíba. ⁽⁵⁾

Regarding HIV/AIDS, in Brazil, in 2019, 41,909 cases of HIV were reported, of which 10,752 (25.6%) refer to cases in the Northeast region. Despite the previously reported insufficiency regarding STI prevention and control actions, since 2013 there has been a reduction in AIDS cases in the country ⁽⁶⁾, this could be an indication that health policies regarding this disease are having an effect or it could be that there is underreporting of HIV/AIDS cases.

More than half of new HIV infections occur in the 15-24 age group. Transmitted mainly through sexual contact (oral, anal, vaginal) without the correct use of condoms. The World Health Organization (WHO) indicates a large increase in the incidence of STIs in the population and considered the need to carry out new actions to prevent and eliminate these infections by 2030. ⁽⁷⁾

Topics such as sexual health and reproductive health should be worked on in partnership with schools, families and Primary Care, through educational actions, as adolescence is the stage of curiosity and discovery related to sexual issues. ⁽⁸⁾

Vulnerability comes in many forms and affects a wide range of different individuals, in this case the younger population. Social, economic, cultural and political aspects, and education has

a great influence on the future decisions of this part of the population, are some of the situations that lead to vulnerability. ⁽⁹⁾

Within the situation of vulnerability, risk behavior is an important factor and has serious consequences in the lives of individuals, as the risk of STI contamination grows considerably. The practice of unsafe sex, the lack of information, the difficulty of access to health corroborates this picture of a public health problem related to sexually transmitted infections. ⁽¹⁰⁾

Studies indicate that the population of adolescents and young people has been showing a higher incidence of STIs, with a high prevalence of cases for syphilis (937,000), gonorrhea (1,541,800), chlamydia (1,967,200), genital herpes (640,900) and for HPV (685,400). The highest rates are found especially among young people under the age of 25, with approximately 12 million cases each year. ⁽¹¹⁾

The population between 15 and 24 years old has only 27% of sexually active individuals, however, half of the 19 million STI diagnoses each year occur in this age group, which is a disproportionate rate for other age groups. Of this number, 30% of the total diagnoses are detected among university students. ⁽¹²⁾

Given the context of STIs in young people, especially university students, it is important to search the literature

for articles that deal with this theme in order to obtain an overview of what is in research and scientific production in the area.

For this study, the following guiding question was elaborated: What is the scientific evidence related to the risky sexual behavior of university students in relation to STIs? The objective of this literature review is to carry out a bibliographic survey to verify risky sexual behavior in university students.

METHOD

It is an Integrative Literature Review (ILR), a scientific method of investigation and for this it follows a careful path composed of 6 steps that have already been described and discussed by other authors, but ultimately consolidated by Mendes et al. ⁽¹³⁾

In order to fulfill the first phase, which is defined by the identification of the theme, the following guiding question was established: What is the scientific evidence related to the risky sexual behavior of university students in relation to STIs?

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Regarding the definition of the information to be extracted from the selected studies or the categorization of the studies delimited by the third aspect of the RIL, were defined as inclusion criteria: original articles available in full, written in any language, but with an English version, considering that the search was performed with descriptors in English; there was no period delimitation in the expectation of capturing the largest number of studies and, at the same time, having a historical series of what was published on the subject. Dissertations, theses, editorials and any material that was not considered a

scientific article with a rigorous methodological approach were excluded.

As a search strategy, the Health Sciences Descriptors (DeCS) were used, produced by the US National Library of Medicine (NLM) with the following descriptors: Sexually Transmitted Diseases, Students, Illicit Drugs, Risk Behavior. The search was performed using the terms in English.

RESULTS

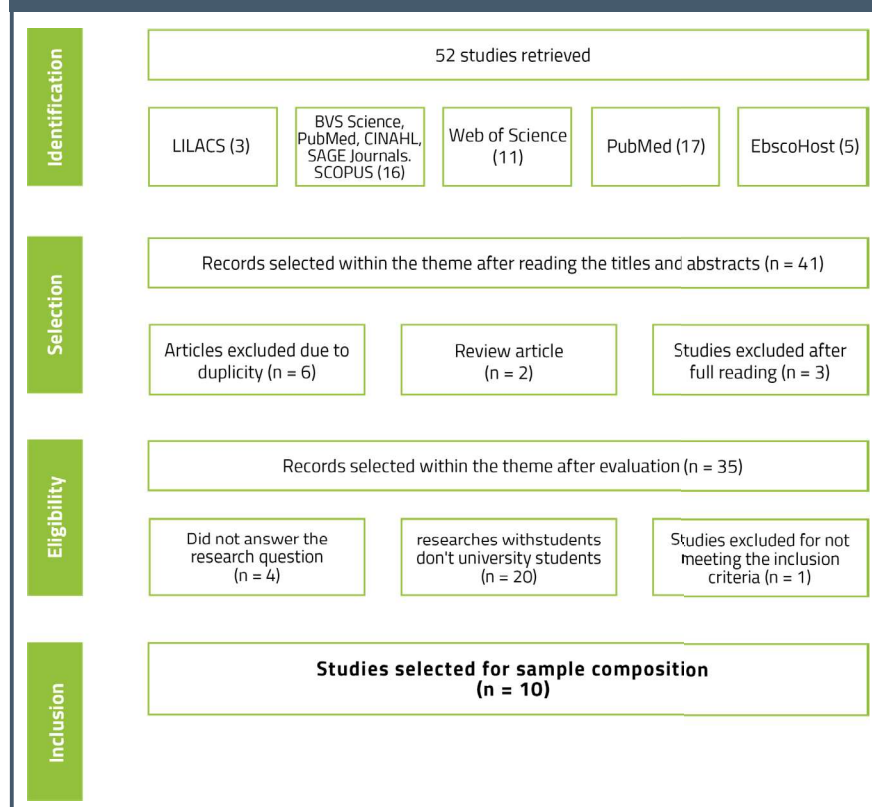
According to the established criteria, 10 articles with notes on risky sexual behavior in university students were retrieved. The studies varied by location, with the main ones being in the North American region. With regard to the year of publication, the period was not delimited in the expectation of

capturing the largest number of studies and, at the same time, having a historical series of what was published on the subject within the main databases. The articles were from 2008 to 2017, with 2008 with three articles being the year that most published on the subject, followed by 2016 with two published articles.

Das bases de dados pesquisadas, a LILACS não apresentou resultado dentro das diretrizes postas, desta maneira as demais bases (ver gráfico a seguir) apresentaram artigos, concentrando a maioria na PubMed, que é uma extensa base de dados ancorada na MEDLINE.

Regarding the studies found, it was observed that the sexual risk behaviors of the analyzed university students were concentrated in the relationship with the use of alcohol and other drugs, espe-

Figure 1 – Flowchart for the selection of primary studies – (PRISMA), João Pessoa, PB, Brazil – 2022.



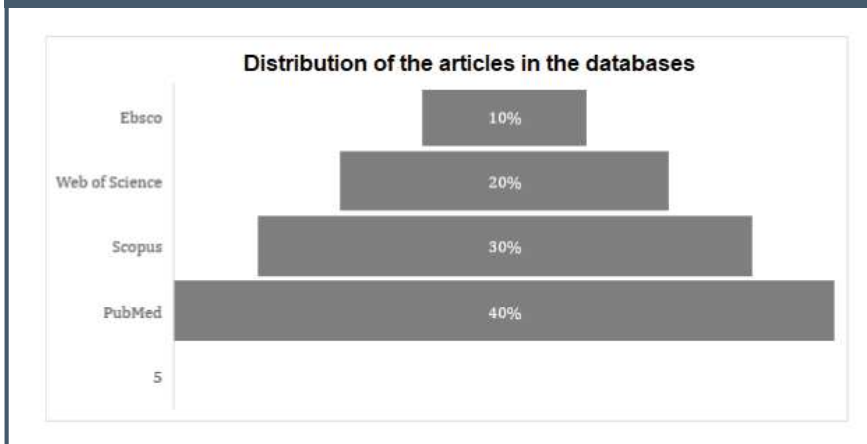
Source: Prepared by the authors

cially cannabis sativa, and the non-use of barrier contraception.

To validate the quality of the studies presented, the evidence-based practice proposed by the Agency for Healthcare Research and Quality (AHRQ) was used, which categorizes the studies into six levels, one being, the strongest researches represented by systematic reviews with meta-analysis of multiple controlled studies, up to six which are the studies with greater methodological weakness and/or low reliability. According to the criteria considered by the AHRQ, this study is classified at level four of evidence.⁽¹⁴⁾

According to the studies surveyed,

Graph 1. Distribution of articles according to the researched databases, João Pessoa, PB, Brazil, 2022.



Source: Prepared by the authors

Table 1. Sexual risk behavior in university students identified in the studies. João Pessoa, PB, Brazil, 2022.

TITLE / YEAR	OBJECTIVE	SAMPLE CHARAC- TERIZATION	RISKY SEXUAL BEHAVIORS
Sex, drugs and sexually transmitted infections in British university students 2008	Understand predisposing factors for STIs in young adults and identify targets for public health interventions.	N = 824 College students British people Single	The risk of infection was higher among respondents with a bisexual and homosexual orientation, and increased with the number of partners. Those who reported a change in sexual lifestyle as a result of concerns over contracting HIV or an STI had a reduced risk of STIs. Risk factors were having sex with men, bisexuals or homosexual preference.
High-risk sexual behavior among students of a minority-serving university in a community with a high HIV/AIDS prevalence 2008	Inform campus STI prevention programs.	N = 1.130 South Florida Students in the USA	14% engaged in risky sex, and 11.9% reported consistent risky sex. 52.1% did not use a condom the last time they had sexual intercourse and 52.4% did not use a condom most of the time, 13% had unprotected sex under the influence of alcohol. 63% were vaccinated against Hepatitis B. 90.8% had not had an STI in the last year. 45% reported receiving information from the university about STIs.
Medical students: abuse of psychoactive substances and sexuality aspects 2008	To identify risk factors related to the exploration of sexuality and characteristics of the consumption of psychoactive substances in the medical course.	N = 465 63.6% reported a family income greater than 20 minimum wages, and 6.9% worked.	76.2% consumed or consume alcohol. Regarding sexuality, 85.3% preferred an active sexual life. 91% had only one current sexual partner. 22.4% had sexual intercourse for payment. 5.4% infected with some type of STD.
Foreign travel associated with increased sexual risk-taking, alcohol and drug use among UK university students: a cohort study 2010	To evaluate the sexual behavior of students at a British university during their summer holidays, to explore the role of travel abroad as a risk factor for acquiring sexually transmitted infections and to determine characteristics associated with casual sex.	N = 827 Students British people	Those who completed follow-up differed slightly from those lost to follow-up in that a greater proportion of students were female (72.9% versus 63.5%, 0.004), of white ethnic origin (95.1% versus 85.4%, P, 0.001), less frequent cannabis users (37.2% versus 44.8%, P = 0.026), and tended to have fewer sexual partners

The influence of attributional style on substance use and risky sexual behavior among college students. 2014	Understand the HIV risk behavior of sexually active college students and determine whether a set of predictors reliably distinguishes between individuals who engage and those who do not engage in HIV risk behaviors.	N= 1,874 Students Average of 19.6 years	Male students with an external attribution style engaged in more unsafe sexual behaviors and greater amounts of alcohol and drug use than females. An internal attribution style was associated with greater drug use and greater likelihood of engaging in HIV-related risk behaviors.
Similarities and differences matter: Considering the influence of gender on HIV prevention programs for young adults in an urban HBCU 2017	Assess and address irresponsible behaviors among students on college campuses that lead to illicit drug use, binge drinking and underage drinking, and risky sexual behaviors that increase the likelihood of acquiring HIV and STIs	N= 365 18-24 year olds from the Northeast US	Alcohol consumption (54%) was common among respondents when asked about exposure in the last 30 days. Marijuana (41%) was the most popular among respondents. 31% said they had not been exposed to alcohol and substances in the last 30 days. 70% of respondents were aware of their HIV risk, but only 32% had been tested in the last three months and 29% had never been tested for HIV. 59% used a condom while 41% had unprotected sex in the last intercourse.
Sexual behavior and contraceptive use at brown university: 1975–2011 2016	To assess sexual behavior and contraceptive use in a sample of students at Brown University.	N = 255 Providence, Rhode Island Students.	32% used the dual contraceptive method for STIs and pregnancy prevention. We observed a plateau in condom use among women in 2011 after an increase from 1975–1995.
Risky sexual behaviors among sexually active first-year students matriculating at a historically Black college: Is a positive self-image an instigator? 2016	To evaluate the role of social workers in the education and health activities of a university.	N = 498 Black, college students in North Carolina	Students engaged in sexual activities while under the influence of illicit drugs in a relatively large number of cases, 37% of cases. Most sexually active first-year students engaged in sex while under the influence of alcohol or illicit drugs
Sexual behavior and condom use among male students in Dar-Es-Salaam, Tanzania with emphasis on contact with barmaids. 2012	Identify the factors that influence young men to engage in risky sexual behaviors that put them at risk of HIV infection	N = 175 Students aged 17 to 24 in Dar-es-Salaam City, Tanzania	Condoms used at some point by 83% of students. Only 37%, 22% and 11% used condoms during sex. 94% and 91% of students experienced oral and anal sex with sex workers, respectively. STI infection was reported by 42% of students.
Alcohol, drugs, and links to sexual risk behaviors among a sample of virginia college students 2011	Investigate the use of alcohol and other drugs and sexual behaviors by students that may be linked to the use of these substances	N = 1.220 University students from 3 institutions in the US State of Virginia	44.7% answered that they did not drink or use drugs before sexual intercourse, 29.5% answered yes. Women more often than men reported not drinking or using alcohol the last time they had sex, with 47.6% reporting "no" and 26% reporting "yes" compared to 40.6% of men reporting "no" and 34.3% who stated they had drunk alcohol or used drugs in their last sexual intercourse.

Source: Prepared by the authors

the risk of contamination by STIs in university students is divided into two main axes, namely: use of alcohol and other drugs and non-use of condoms. Homoaffection and bisexual relationships were observed as a risk factor, as well as sex through payment and the number of partners as possible elements of causing STIs. ⁽¹⁵⁾ All the studies listed in this research were unanimous in

pointing out the need to promote interventions in safe sexual behavior.

DISCUSSION

Upon completion of high school, most young people enter universities, colleges, institutes and technical courses, experiencing a phase of discoveries and new experiences. ⁽¹⁶⁾ Faced with the

freedom in which they find themselves, they enter social groups, relate and although some practice safe sex, others end up with risky behaviors. ⁽¹⁷⁾

The findings in this research show the great deficiency of articles on this topic in the main databases, therefore, used by several researchers, given the importance of this subject, not only in the academic environment, but also for

health professionals who need to develop educational actions in sexual and reproductive health, valuable areas for Primary Care.⁽¹⁸⁾

The inclusion criteria selected for the development of this article were chosen so that anyone can have access to the original articles, in full and free of charge. In a study published in 2022 on an integrative literature review on the topic of sexually transmitted infections with university students, corroborates what was found in the present research, only eight articles were selected at the end, all taken from the LILACS, BDE-NF databases, and MEDLINE.⁽¹⁹⁾

In a study carried out in 2021, the same theme and similar inclusion criteria were found, but separated into two distinct categories: one was early initiation and condom adherence and the other lack of knowledge about sexual health and sexually transmitted infections.⁽²⁰⁾ Thus, more articles were found in the research databases, but the subject was limited to small parts and not the entirety of the subject.

The study showed the need for new publications on the subject, in addition to free access to articles found in the most used databases for researchers, undergraduate and graduate students and health professionals can develop works,

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research, projects and actions in sexual health aimed at the younger population.

Some limitations of this study should be listed: the duplication of some articles found, the large number of articles that need to be paid for in order to have access.

CONCLUSION

The non-use of condoms associated with vulnerability issues and the lack of knowledge are factors that strongly contribute to the contamination and transmission of sexually transmitted infections. The number of articles selected for the sample of the development of this article was small, taking into account the importance of the subject, since it is a global health problem.

It is concluded that there is a need for interventions and health education not only for young people, but for all age groups about the circumstances that lead to the transmission of STIs and the correct use of male and female condoms. Making it necessary to build more research on this topic, in addition to new public policies that effectively reach the entire population and not specific niches of individuals.

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