

RESEARCH ARTICLE

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PRACTICES OF UNIVERSITY STUDENTS RELATED TO HEALTH CARE: INTEGRATING REVIEW OF LITERATURE

***Francisco Cezanildo Silva Benedito, Nicásio Urinque Mendes, Leilane Barbosa de Sousa, Emília Soares Chaves Rouberte, Anne Fayma Lopes Chaves, Ana Caroline Rocha de Melo Leite, Alana Santos Monte, Andressa Aires Alencar and Cosmo Helder Ferreira da Silva**

Mestrando em Enfermagem, Bolsista da Fundação Cearense de Apoio ao Desenvolvimento Científico e Tecnológico – Funcap, Universidade da Integração Internacional da Lusofonia Afro-Brasileira - UNILAB

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ABSTRACT

The aim of this study was to identify in the literature the practices carried out by university students related to health care. This is an integrative review of the literature, carried out in May 2019, in the Scopus databases, Web of Science, National Library of Medicine, National Institutes of Health (PubMed), Latin American and Caribbean Literature in Health (LILACS) and Scientific Electronic Library Online (SciELO). The guiding question was: What are the practices performed by university students related to health care?. To do so, we used the descriptors controlled in English, "Student Health Services" and "Universities", and in Portuguese, "Health Services for Students" and "Universities". A total of 14,944 publications were available, which, after application of the inclusion and exclusion criteria and reading of title, abstract and complete article, remained 31. The analysis of the studies revealed that university students presented risk behavior regarding sexual issues and low adherence to physical activities. The self-medication and use of psychoactive substances were very prevalent practices in this population.

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INTRODUCTION

In the last decades, there has been a process of expanding access to higher education in Brazil. Thus, a greater number of young people enter the universities, expanding and diversifying the discussions and debates related to different themes, particularly those that directly and indirectly affect the lives of academics. Admission to higher education is characterized as a phase of paramount importance in the psychosocial development of young people, mainly because of their capacity to compromise the time that the student dedicates to his family. Specifically, in more extreme situations, such as the need to establish a new home, far from its place of origin, entry to the university can interfere intensely in the life of the human being (Oliveira et al., 2016). In addition to these issues, the university environment per se, by requiring the individual to establish new links, incorporate habits and confront challenges, contributes

significantly to the personal and professional training of the student, as well as to his state of health. In the field of health, care in the university environment represents an action that is often little practiced and discussed, although its relevance transcends the different academic spaces in which it happens. In this medium, the complexity of this care results from the social and subjective relationships established between the students and their new status, as well as reflecting the principles instituted and experienced in the family and previous experiences. Specifically, the importance and heterogeneity of this care becomes more evident when observing students who seek higher education institutions abroad. In fact, in addition to these factors, the experience of a new reality, with different habits and habits of life, contributes to the practice of care among these individuals (Oliveira et al., 2014). Particularly with regard to care practices instituted by the university, a point worth mentioning is the risk of behavior adopted by a large portion of them, especially those who enter the University. Being in contact with different people, with different cultural conceptions, greater pressure to take responsibility and financial independence, greater contact with alcohol and other drugs and the practice of unsafe sex put

*Corresponding author: Francisco Cezanildo Silva Benedito, Mestrando em Enfermagem, Bolsista da Fundação Cearense de Apoio ao Desenvolvimento Científico e Tecnológico – Funcap, Universidade da Integração Internacional da Lusofonia Afro-Brasileira - UNILAB

these students at risk, increasing the occurrence of Sexually Transmitted Infections (STI), unplanned pregnancy (Campo-Arias *et al.*, 2010) and the development of mental disorders (Padovani *et al.*, 2014). In this context, according to Sousa *et al.* (2013), the university public presents inadequate health behaviors, mainly related to eating habits, physical exercise, sexual activity and tobacco and alcohol consumption. In addition, these students present an irregular pattern of sleep, depriving it during the week, as a consequence of academic activities, compensating it at the weekends (Araújo *et al.*, 2013). So based on the above, the study aimed to identify the literature practices carried out by university students related to health care.

METHODOLOGY

It is an integrative review of the literature, which consists of a method of gathering and synthesizing results of studies. It allows the integration of research on a particular subject and its conclusion, based on its findings (Soares *et al.*, 2014). For the elaboration of this integrative revision, the following steps were followed: elaboration of the guiding question; search in literature; data collect; critical analysis of included studies; discussion of the results and presentation of the review (Souza *et al.*, 2010).

The guiding question of this study was: What are the practices performed by university students related to health care?

The search and analysis of the studies were performed by a researcher during the month of May, 2019. The descriptors controlled in English, "Student Health Services", "Universities" and "Student Health" were used, indexed in the Medical Subject Headings (MeSH) and Health Sciences Descriptors (DeCS), respectively. For the association of these descriptors, the Boolean operator "AND" was used. The selection of scientific productions was made through the consultation in the following databases: Scopus, Web of Science, National Library of Medicine, National Institutes of Health (PubMed), Latin American and Caribbean Literature in Health Sciences (LILACS) and Scientific Electronic Library Online (SciELO). Inclusion criteria were adopted in full, freely available articles that address the practices of university students related to health care and published in the last 10 years (2009 to 2019), in the Portuguese, English and Spanish languages. Repeated articles, editorials, letters to the editor, theses, dissertations, reports and articles not relevant to this review were excluded. To organize the data, an adaptation of the instrument validated by Ursi (2005) was used. This, in turn, consists of a Checklist, divided into nine domains, which aims to facilitate the description of the main data present in the articles (Ferreira *et al.*, 2013). After the collection, articles were organized according to their title, country where the study was conducted, language, year of publication, publication area, type of publication, study objective, sample, main results, level of evidence, implications study and evaluation of methodological rigor. The evaluation of studies on the level of evidence followed the literature (Stillwell, 2010), as shown in Table 1. Afterwards, the data were analyzed using the Epi Info program version 7.0. The results were expressed as absolute and relative frequency.

RESULTS AND DISCUSSION

Figure 1 shows the flowchart of the steps established for the selection of articles. From the search strategy, 14,944 publications were found, of which 2,519 were available in full

and free of charge. Of these, 2,085 had been published in the last 10 years, and of these, 1,721 were in English, Portuguese and Spanish. After reading the titles and abstracts, 1,593 articles were excluded from the 1,721. Of the 128 publications read in full, 04 were excluded for duplicity and 93 for not fitting the question of departure. Thus, 31 articles became part of the corpus of analysis of this integrative review. Productions were organized in a table that included the article number, production title, objective, year of publication, study site, periodical, publication area, database, level of evidence and type of study (Table 2).

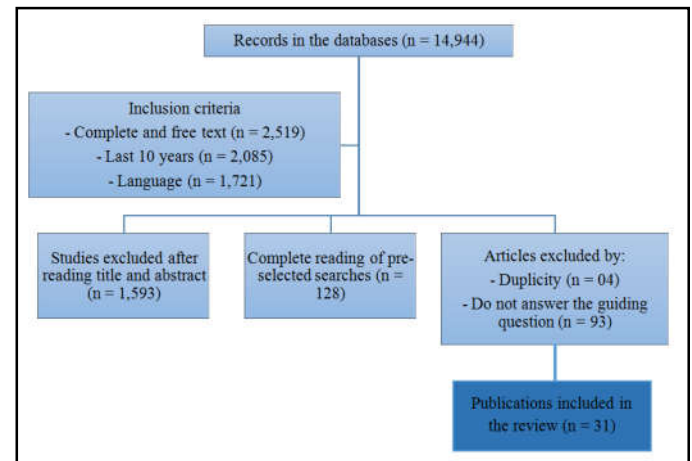


Figure 1. Flowchart of the selection stages of articles about practices of university students related to health care. Redenção - CE, Brazil, 2019

According to Table 2, it was verified that the years 2017 and 2019 presented the largest number of papers, totaling 07 (22.58%) in each year. In 2018, 04 (12.9%) studies were published, and, in 2009 and 2011, the quantitative value was lower (n = 03 - 9.68% / year). The years 2012 and 2014 presented 02 (6.45%) articles published in each year and, in 2010, 2015 and 2016, 03 papers were published, 01 in each year (3.23%). From these results, it can be seen that a greater number of articles included in this review was published recently, especially in the last three years. This phenomenon may suggest an increase in the importance, in the scientific scenario, of the health care theme carried out by university students. When the study area was evaluated, the studies covered the fields of Public Health (n = 21, 67.74%), Medicine (n = 08, 25.81%) and Nursing (n = 02, 6.45%). Although the areas of the publications presented here are relevant domains of knowledge in Health Sciences, other sectors could have been contemplated, such as Dentistry, Nutrition, Physical Education and Pharmacy. This data shows the need to sensitize university students and researchers to the fact that health care, since it covers different aspects of the individual's life, must be understood, experienced and investigated. Consequently, the services and health care provided to these students can be improved, positively impacting their health and quality of life. Regarding the database, 13 (41.94%) articles were published in PubMed, 10 (32.26%) in Scopus, 04 (12.9%) in the Web of Science and 04 (12.9%) in the LILACS. Considering this finding, one can see that the largest number of publications included in this research involved databases of worldwide relevance in the area of science, technology and social sciences, including publications in the fields of Medicine, Dentistry, Nursing, care systems in pre-clinical health and sciences.

Table 1. Level of evidence by type of study. Redenção - CE, Brazil, 2019

Type of Evidence	Level of Evidence	Description	Type of Evidence	Level of Evidence	Description	Type of Evidence	Level of Evidence	Description
Systematic Review or Meta-Analysis	I					Evidence from a systematic review or meta-analysis of all randomized controlled trials or from guidelines based on systematic reviews of controlled clinical trials		
Randomized controlled trial	II					Evidence obtained from at least one randomized, controlled, and well delineated clinical trial		
Controlled randomized controlled trial	III					Evidence from a well-designed and controlled study without randomization		
Case-control study or cohort study	IV					Evidence from a case-control study or cohort study		
Systematic review of qualitative or descriptive studies	V					Evidence from a systematic review of qualitative and descriptive studies		
Qualitative or descriptive study	VI					Evidence of a single descriptive or qualitative study		
Opinion or consensus	VII					Evidence from the opinion of authorities and / or expert committee / expert reports		

Table 2. Publications organized according to the variables title, objective, year of publication, place of study, periodical, area of publication, database, level of evidence and type of study. Redenção - CE, Brazil, 2019

Nº	Title of productions	Objective	Year/ Place of Periodical Study	Periodic/ Area	Database /Level of Evidence / Type of study
01	The young university student and the search for health through physical exercise	To verify the occurrence or not of the practice of regular physical exercises in young university students of the Federal University of Santa Maria (UFSM)	2009/ Brazil	Arq. Ciênc. Saúde Unipar/ Educação Física	Lilacs/ IV/ Descriptive
02	Chlamydia trachomatis infection and sexual behavior among female students attending higher education in the Republic of Ireland	To determine the prevalence and predictive risk factors for Chlamydia trachomatis genital infection among higher education students in Ireland.	2009 / Ireland	BMC Public Health / Public health	PubMed/ VI/ Descriptive and analytical study
03	Condom Use in Heavy Drinking College Students: The Importance of Always Using Condoms	Examine whether alcohol use has decreased the use of condoms.	2009/ United States	J Am Coll Health / Nursing	PubMed/ VI/ Descriptive study
04	Alcohol Use in Students Seeking Primary Care Treatment at University Health Services	To examine the behaviors related to alcohol consumption and the associated factors in students attended at the student health services for primary care consultations from October 30, 2004 to February 15, 2007.	2010/ United States	J Am Coll Health / Medicine	PubMed/ VI/ Descriptive study
05	Physical activity and sedentarism in young university students of Colombia: practices, motives and resources to carry them out	To describe the practices of physical activity in university students of some Colombian cities and to identify the relation of the practices with the reasons to realize them and to modify them, as well as the resources available to realize them..	2011/ Colombia	ColombMed/ Medicine	Lilacs/ VI/ Descriptive study
06	Dependencia al alcohol en estudiantes de la Universidad Tecnológica de Pereira	Establish dependence on the consumption of alcoholic beverages in the student population of the Technological University of Pereira, in the first half of 2008.	2011/ Colombia	Revista Médica de Risaralda/ Medicine	Lilacs/ VI/ Transversal, descriptive, quantitative
07	Mental health and behaviour of students of public health and their correlation with social support: a cross-sectional study	To assess the state of health and behavior of public health students with a focus on mental health.	2011/ Hungria	BMC Public Health / Public Health	PubMed/ VI/ Cross-sectional, descriptive study
08	Factors Associated with Condom Use among Male College Students in Wuhan, China	To investigate the domains of influence on condom use among male college students in China, including knowledge, attitudes, utility of health services on condom use, and sources of reproductive health information.	2012/ China	PLOS ONE / Public Health	PubMed/ VI/ Descriptive study
09	Human Papillomavirus Vaccine Intent and Uptake among Female College Students	Examine the intent of the HPV vaccine and the effect of an educational intervention on the recruitment of vaccine among female university students	2012/ United States	J Am Coll Health / Medicine	PubMed/ II/ A randomized controlled trial
10	Salud sexual y reproductiva en estudiantes universitarios de una institución de educación superior en Colombia	To investigate at a state university of the Colombian Caribbean the state of sexual and reproductive health, especially knowledge about Sexually Transmitted Diseases (STDs), fertility, sexuality, pregnancy and violence.	2014/ Colombia	Rev. salud pública / Public Health	PubMed/ VI/ Cross-sectional, descriptive study
11	Factors that influence utilisation of HIV/AIDS prevention methods among university students residing at a selected university campus	Explore the factors that influence the use of existing HIV / AIDS prevention methods among college students residing on a selected campus, using the Health Belief Model as a theoretical framework.	2014/ South Africa	Journal of Social Aspects of HIV/AIDS / Nursing	PubMed/ VI/ Quantitative, exploratory-descriptive study
12	The sexual practices of nursing undergraduates and the prevention of sexually transmitted diseases	To identify the sexual practices of undergraduate nursing students, the vulnerability and practices adopted by young people for the prevention of sexually transmitted diseases.	2015/ Brazil	Revenferm UERJ/ Nursing	Lilacs/ VI/ Descriptive, quantitative study
13	Association between college health services and contraceptive use among female students at five colleges in Wuhan, China: a cross-sectional study	Analyze whether college health services lead to the use of contraceptives among female college students in heterosexual relationships.	2016/ China	BMC Public Health / Public Health	PubMed/ VI/ Descriptive study
14	The association between levels of alcohol consumption and mental health problems and academic performance among young university students	To investigate the association between levels of alcoholism and mental health problems and academic performance among college students aged 18 to 24.	2017/ Malawi	PLOS ONE / Public Health	PubMed/ VI/ Cross-sectional, quantitative study
15	Prevalence and correlates of substance use among health care students in Nepal: a cross sectional study	To determine the prevalence and correlates associated with substance use among Nepalese health students.	2017/ Nepal	BMC Public Health / Public Health	Scopus/ VI/ Descriptive, cross-sectional study

.....continue

16	Health assessment of French university students and risk factors associated with mental health disorders	Evaluate the health and lifestyle of undergraduate students and assess the risk factors associated with psychiatric symptoms.	2017/ France	PLOS ONE / Medicine	Scopus/ VI/ Descriptive study
17	Changes in the physical activity of university students: association with health information and access to places for practice	To evaluate changes in the level of physical activity (LPA) of students during the first two years of graduation and their association with access to information on health and places to practice physical activity.	2017/ Brazil	Rev. SaludPública / Public Health	Scopus/ VI/ Descriptive study
18	Uptake of a new meningitis vaccination programme amongst first-year undergraduate students in the United Kingdom: A cross-sectional study	Determine the recruitment of meningococcal ACWY vaccine among students and assess how this was influenced by demographics and the Health Belief Model.	2017/ UK	PLOS ONE / Public Health	Scopus/ VI/ Descriptive, cross-sectional study
19	Prevalence of self-medication among university students in Baghdad: a cross-sectional study from Iraq	To discover the prevalence and determinants of self-medication among university students in Baghdad, Iraq.	2017/ Iraq	EMHJ / Medicine	Scopus/ VI/ Descriptive, cross-sectional study
20	Risky HIV sexual behavior and utilization of voluntary counseling and HIV testing and associated factors among undergraduate students in Addis Ababa, Ethiopia	To assess sexual risk behaviors for HIV and the use of counseling and voluntary testing services among undergraduate students at the University of Science and Technology in Addis Ababa, Ethiopia.	2017/ Ethiopia	BMC Public Health / Medicine	Scopus/ VI/ Descriptive, cross-sectional study
21	Awareness and Vaccine Coverage of Hepatitis B among Cameroonian Medical Students	Evaluate awareness and coverage of hepatitis B vaccine among medical students in Cameroon	2018/ Cameroon	BioMed Research International / Medicine	PubMed/ VI/ Cross-sectional, quantitative study
22	Prevalence of self-medication practice among health sciences students in Kermanshah, Iran	To determine the prevalence of self-medication and its related factors among students of the health sciences.	2018/ Iran	BMC Pharmacology and Toxicology / Public Health	Web of Science/ VI/ Descriptive, cross-sectional study
23	Sport and exercise at university: How much do students really do?	Analyze the amount of physical exercise that the students did using university services and facilities.	2018/ Espain	Journal of human sport & exercise / Public Health	Web of Science/ VI/ Descriptive, cross-sectional study
24	Knowledge, risk perception and access to healthcare services for HIV and tuberculosis among university students in Johannesburg, South Africa	Describe the knowledge and perception of risk of TB and HIV among people who drop out of high school and enter higher education.	2018/ South Africa	SAJCH / Public Health	Web of Science/ VI/ Descriptive, cross-sectional study
25	Female University Students' Knowledge and Practice of Breast Self-Examination in Turkey	To determine the knowledge of university students and the practice of self-examination of the breast	2019/ Turkey	Nigerian Journal of Clinical Practice / Nursing	PubMed/ VI/ Descriptive, cross-sectional study
26	Sexual attitudes, sexual behaviors, and use of HIV prevention services among male undergraduate students in Hunan, China: a cross-sectional survey	Describe sexual attitudes and behaviors and examine the use of HIV prevention services and related factors among male graduate students in Hunan, China.	2019/ China	BMC Public Health / Nursing	PubMed/ VI/ Descriptive, cross-sectional study
27	A qualitative study of drivers of psychoactive substance use among Mekelle University students, Northern Ethiopia	Explore the factors that drive the use of psychoactive substances among undergraduate students at Mekelle University.	2019/ Ethiopia	BMC / Public Health	Scopus/ VI/ Qualitative, exploratory study
28	Pertussis vaccination status and vaccine acceptance among medical students: multicenter study in Germany and Hungary	To assess the vaccination status against cough and the acceptance of vaccination among medical students of different nationalities.	2019/ Hungary	BMC Public Health / Medicine	Scopus/ VI/ Descriptivestudy
29	Family planning among undergraduate university students: a CASE study of a public university in Ghana	Examine family planning among undergraduate students focusing on their knowledge, use, and attitudes toward contraception at Winneba University of Education.	2019/ Ghana	BMC Women's Health / Public Health	Scopus/ VI/ Descriptive, cross-sectional study
30	Association between condom use and perspectives on contraceptive responsibility in different sexual relationships among sexually active college students in China	Explore the individual characteristics of male and female students, the status of condom use, and the perceptions of who should be responsible for contraception.	2019/ China	Medicine / Public Health	Scopus/ VI/ Descriptivestudy
31	Knowledge, Attitude, and Practice of Contraception Methods Among Female Undergraduates in Dodoma, Tanzania	To evaluate the knowledge, attitude and practice of contraception among female students in Dodoma, Tanzania.	2019/ Tanzania	Cureus / Public Health	Web of Science/ VI/ Descriptive, cross-sectional study

As shown in Table 2, the studies were conducted in different countries: China (n = 04, 12.9%), Brazil (n = 03, 9.68%), United States (N = 02, 6.45%), Colombia (n = 03, 9.68%), Hungary (n = 02, 6.45%), Ethiopia (N = 01, 3.23%), France (n = 01, 3.23%), Cameroon (N = 01, 3.23%), Iran (n = 01, 3.23%), Iraq (n = 01, 3.23%), Nepal (n = 01, 3.23%), United Kingdom (n = 01, 3.23%), Tanzania (n = 01, 3.23%) and Turkey (n = 01, 3.23%). Specifically, this result shows that the theme addressed here is of interest to different research groups and nationalities, highlighting, therefore, the relevance of this work. Regarding the type of study, 29 (93.54%) were classified as descriptive, 1 (3.23%) as qualitative and 1 (3.23%) as a randomized controlled study.

As to the level of evidence, 96.77% (n = 30) of the studies were classified with level of evidence VI and I (3.23%) with level of evidence II. Regarding the objective of the studies included here, although some did not directly portray the health care practices, they allowed to obtain, as results, the care actions instituted by university students. These included attitudes related to sexual and reproductive health, immunization, physical activities, self-medication and use of psychoactive substances. When considering these attitudes, behavior in sexual and reproductive health was highlighted as one of the most evident care practices among the university public. This was not unexpected, since, according to Oliveira *et al.* (2014), admission to the university is accompanied by a series of changes, especially behavioral ones, especially those related to sexual attitudes of risk.

In this context, analyzing the sexual behaviors of the students, portrayed in the publications contained in this review, one can perceive appropriate and inadequate behaviors among students of the same nationality. Indeed, in research conducted in China, it was found that 60.1% of male college students and 58.1% of female students reported having used condoms during their last sexual intercourse (Long *et al.*, 2019). Different reality was observed in the study by Xu *et al.* (2019), with Chinese university students. The authors found low condom adherence during sex, especially among those who had sex with casual partners. Yet, these sexual attitudes seemed independent of the sex and stability of the university relationship. Corroborating this assumption, a study by Long *et al.* (2019) pointed to greater condom use among male students with a fixed partner and a female partner with a casual partner. In addition, this behavior did not seem to be associated with the student's nationality. Indeed, surveys conducted with university students in Ethiopia (Woldeyohannes *et al.*, 2017) and in Ireland (O'Connell *et al.*, 2009) showed the use of condoms during sexual intercourse among many of the participants, which did not occur in studies in Brazil (D'Amaral *et al.*, 2015) and the United States (Patel *et al.*, 2012, Certain *et al.*, 2009). When assessing the reasons for these diverse behaviors of college students, the survey conducted in Wuhan, China (Long *et al.*, 2012), showed a greater likelihood of condom use among participants who had access to reproductive health information, mainly via television and radio programs.

In this context, it is worth mentioning that the use of condoms can be influenced by the availability of websites related to health, greater appeal of the media in relation to the issue, distribution of contraceptives in health centers and advice on birth control (Long *et al.*, 2016). In addition to these resources, there is still the knowledge of contraception, its awareness and its benefits. However, they may be insufficient for adherence to the university's use of contraceptives because they encounter situations such as unavailability, inaccessibility and high cost of condoms (Gbagbo; Nkrumah, 2019). Considering also the knowledge about contraception, in a study covering the use of family planning by university students in Ghana, 67% of the participants had never used any family planning method, although 58% reported that they could use. In this study, the authors also mentioned that 65% of university students used contraceptives, mainly for pregnancy prevention, and 34% used sporadically before sexual intercourse. Among those surveyed, emergency contraception was the most used contraceptive (51%), followed by condoms (34.0%) (Gbagbo *et al.*, 2019). Similar to the above, in Tanzania work, 47.4% of students who had knowledge of contraception had never used any method in their lifetime.

Of the 333 students who were aware of contraception, 55% were aware of emergency contraception and only 37.7% used it. The lack of adequate knowledge about how to use emergency contraception (63.2%) and fear of side effects (14.9%) were among the reasons for its non-use (Kara *et al.*, 2019). With regard to contraceptive methods used by university students, condoms (55%) were mentioned and oral contraceptives (20%), followed by injections (14.1%), natural methods (5%) and coitus interrupted (3.3%) (Gómez-Camargo *et al.*, 2014). Specifically, in terms of awareness of human immunodeficiency virus (HIV) testing, the studies analyzed here have shown that undergraduates had already undergone or were likely to undergo testing.

Indeed, in a survey conducted in South Africa, only one in three students (30.6%) reported never having taken the HIV test (Evans *et al.*, 2018) and in the study by Ndabarora *et al.* (2014), conducted in the same country, 76.4% of participants had undergone HIV testing. Moreover, in the study by Woldeyohannes *et al.* (2017), made in Ethiopia, of the 589 students, 457 (77.6%) were willing to take the test. In this context, it is worth noting what was observed by Woldeyohannes *et al.* (2017). According to the authors, health students are more informed about the risks involved in HIV transmission when compared to the other areas. Associated with this fact, these students presented more favorable attitudes toward HIV prevention methods than students from other areas. Regarding the care practices of university students regarding immunization, the results showed a good adherence to this practice. In fact, in a study of 2,677 students in Hungary, 95.1% of them reported having been vaccinated against pertussis, especially women (Bohme *et al.*, 2019). Similar to this finding, a survey carried out in the United Kingdom revealed, in a sample of 485 university students, a self-reported rate of meningitis vaccine of 68.1%. The study also revealed a negative association between age and the uptake of vaccination, with a reduction of the latter with increasing age (Blagden *et al.*, 2017). Different from the above, a study developed in Cameroon pointed to a low vaccination coverage among university students. In fact, of the 714 participants, 186 (26.05%) had been vaccinated at least once against the hepatitis B virus. Still, 28 (3.92%) received only the 1st dose, 38 (5.32 %) 2 doses and 120 (16.81%) at 3 doses. Despite these results, students were receptive to immunization (Aroke *et al.*, 2018).

In addition to the above studies, depicting a high or low adherence to vaccination practice, Patel *et al.* (2012) presented a differentiated view of US university students regarding vaccination against human papillomavirus (HPV). According to the researchers, of the 492 participants, 41% had the intention to undergo vaccination, 31.3% did not intend to be vaccinated and 26.2% had the intention of being vaccinated at the time of the research. The authors also reported that for those who wished to be vaccinated, the reasons included concern for cervical cancer (67.6%) and / or development of HPV (65.7%) and genital warts (48, 6%). For those who did not intend to undergo this process, the reasons included vaccine safety (48.8%), side effects (48.8%), direct costs or insurance payments (41.3%) and consequences long term (40.0%) (Patel *et al.*, 2012). Thus, although the publications included here present different attitudes and justifications for the submission or not to vaccination practice by university students, it is important to mention that it is an important resource for health promotion, as well as being one of the safest and most effective interventions (Martins *et al.*, 2019).

Regarding physical activity, the studies analyzed here revealed that the practice of physical exercise is incipient among university students. In fact, in the study conducted with Brazilian university students, the proportion of under-active students increased from 7.6% to 12% during the first two years of undergraduate studies. Still, 10.9% of the university students classified as active, when they entered the university, became insufficiently active after two years in higher education. Although contradictory, this last result occurred in the presence of a significant increase of university students who had access to health care information at the University (Oliveira *et al.*, 2017). In a study by Oliveira *et al.* (2017), the researchers revealed a longer stay / active insufficiency of

university students who did not receive information about health care during graduation. A later study carried out in Spain showed that, although 70% of university students were familiar with the university's sports service, only 15% had a sports card for access to the sports facilities of the institution. Regarding the practice of sports, 46.3% of the participants did some type of physical activity regularly (Castañeda-Vázquez *et al.*, 2018). Corroborating with these findings, a study by Varela *et al.* (2011), with Colombian university students, found that 75.3% of the participants did not practice any type of sport or did little. Yet, 40.9% of students rarely did any body exercise or practice or never did it for at least 30 minutes three times a week. Of the total number of participants, 50.1% never or rarely rode a bicycle, should they need to travel to a nearby location. According to the university students, the main reason for the lack of physical activity was laziness (61.5%), among 41.8% of males and 58.2% of females. For Brazilian university students, a study by Antes *et al.* (2009) showed that only 28.05% of the women and 30.68% of the men practiced physical exercises regularly. When questioned about the physical exercise practiced periodically, the exercises most cited by women were bodybuilding (8.54%), aerobics (8.54%), futsal (7.32%), volleyball (2.44%), walking (2.44%) and water aerobics (2.44%). For men, the most mentioned were bodybuilding (10.23%), volleyball (5.68%) and karate (3.41%). A similar result was reported among French university students, in which a more intense physical activity was observed among men (Tran *et al.*, 2017).

Thus, based on these findings, the need for the University, in articulation with the health services, to promote health education for its students is reinforced, particularly if it is considered that entrance into higher education is often accompanied by a sedentary lifestyle and, consequently, the increased risk of developing chronic non-communicable diseases (Guimarães *et al.*, 2017). With regard to self-medication, this is defined as the consumption of non-prescription medicines to alleviate symptoms or treat diseases (Jesus *et al.*, 2013). Specifically, in research conducted in Iraq, 92.4% of college students practiced self-medication. This involved mainly the use of antipyretics (69.6%), followed by antibiotics (46.1%) and analgesics (40.1%). The study also revealed that, of the students who reported side effects, 67 (32.5%) required medical intervention (Al-Ameri *et al.*, 2019). Similarly, a study by Abdi *et al.* (2018), conducted in Iran, reported the use of analgesics (28.8%) and antibiotics (43.6%) by university students. For these participants, self-medication was performed primarily for the common cold (74.8%) and headache (58.8%). Corroborating with the reasons for self-medication, Al-Ameri *et al.* (2019) showed that 74.2% of university students had this practice when they were affected by a disease that was considered trivial and did not require medical advice, and 33.4% justified this habit when they presented symptoms similar to those already experienced, using medication previously prescribed. Other reasons cited were: easy accessibility (15.7%), time savings (14.6%), medical fees (10.9%) and long waiting times in health services (10.6%). In Abdi *et al.* (2018), the reasons given were previous experience on the disease (58%), no disease severity (54%) and drug availability (49.2%). When approached self-medication, according to sex, the research of Abdi *et al.* (2018) found that of the 89.6% of university students who did self-medication in the last six months, 90.1% were female. Regarding the use of alcohol, tobacco and other drugs by university students, it is important to mention that this practice

has a direct impact on the health and quality of life of the student, also promoting inadequate academic performance and increasing the risk of accidents (Paiva *et al.*, 015). Regarding this practice, in a study that evaluated alcohol dependence in Colombian university students, it was found that 16.35% (n = 155) of the participants presented alcohol dependence, while 20.54% (n = 194) were susceptible to alcohol dependence risk (Betancur *et al.*, 2011). As for the number of consumers, three-quarters of Hungarian university students (Biró *et al.*, 2011), 55% of North Americans (Zakletskaia *et al.*, 2010) and 16.8% of Turks (Koc *et al.*, 2019) drank alcohol. This consumption was more prevalent in men than in women (Tran *et al.*, 2017; Panthee *et al.*, 2017). On the amount of alcohol consumed among college students, Tembo *et al.* (2017) showed that 56% (n = 1054) of students in Malawi ingested a low amount of alcohol and 44% (n = 761) ingested at harmful levels. As far as tobacco use is concerned, a study with Hungarian students showed that 47% of the participants were non-smokers and 28% smoked daily. Of these, 16% smoked more than one packet of cigarettes per day (Biró *et al.*, 2011). A similar result was observed by Koc *et al.* (2019), in which 25.5% of university students smoked cigarettes daily.

With regard to the use of other drugs, mainly illicit drugs, work with French students revealed that the prevalence of marijuana use and other recreational drugs was 10.01%, especially among men and students of the humanities (Tran *et al.*, 2017). In a survey conducted in Nepal, the prevalence of drug use was higher (42.8%) than that of Tran *et al.* (2017) and, among the courses, this habit was higher among students of pharmacy and public health (Panthee *et al.*, 2017). In a study with Hungarian university students, it was observed that 28% of the participants had ingested drugs, mainly narcotics and sedatives (Biró *et al.*, 2011). Regarding the reasons for the use of psychoactive substances, the literature pointed to the following factors: - feeling of helplessness after distancing the family; - previous experience of substance use; - reasons for socialization; - low academic performance; - physical environment; - insufficient organizational support (Kahsay *et al.*, 2019). Among the consequences of the use of these substances, besides dependence, can be cited a worse academic performance, lack and delays in the classroom and lack of concentration to finalize activities, which may be tied to cognitive dysfunctions (Tembo *et al.*, 2017; Panthee *et al.*, 2017).

Final Consideration

The studies analyzed showed that university students are at risk behavior regarding sexual issues, mainly in the low adherence to the use of condoms, however they are favorable and receptive to HIV testing. When it comes to immunization, university students are less than ideal coverage, but they are favorable to the immunization process. Concerning the practice of physical activities, this is incipient in the university population, with a low adherence. Among the university students who adhere to this practice, there is a predominance of males. In relation to self-medication and use of psychoactive substances by university students, these practices are quite prevalent in this population, which have a direct impact on the academic performance, quality of life and health of these individuals. The results expressed here demonstrate the urgent need for action with university students regarding the establishment of health care practices that are conducive to their quality physical, intellectual and social development.

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