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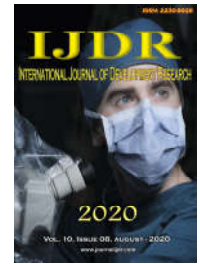
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## THE QUALITY AND LIFESTYLE OF UNIVERSITARIES: AN INTEGRATIVE LITERATURE REVIEW

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### ABSTRACT

Students entering academic life experience significant changes and alterations due to increased responsibilities, autonomy and extensive studying hours, which interfere with their quality and lifestyle. Therefore, the aim of our study was to conduct an integrative literature review and to assess the quality and lifestyle of college students. 270 articles were found in the PubMed database over the past ten years in full text, written in Portuguese, Spanish and English. 150 articles were excluded according to the pre-established criteria. The final sample consisted of 16 articles. Students showed significant changes in their quality and lifestyle, indicating more stress, depressive symptoms and poor sleep quality and physical inactivity as a factor in reducing quality of life. It is concluded that college students with poor sleep quality, physical inactivity and chemical consumption have a high incidence of developing depressive symptoms. Therefore, it is essential that the university promotes student guidance on the importance of physical activity, proper nutrition and free time to improve their quality and lifestyle.

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### INTRODUCTION

When students enter the university, they have to get used to many changes, the higher they being, the higher the level of stress, the afflictions and even the emergence of new pathologies that they have to go through (GREENBERG, 2002). Among the various changes in the students' routine that they need to get used to is the extensive studying hours and the amount of studying, excessive use of alcohol and / or drugs, the difficulty in adapting to another city, being away from their family, friends and boy/girlfriend, which seems to negatively influence their own quality of life (SOARES; CAMPOS, 2008). Upon entering university, the student gains about five pounds in his first year of college, primarily at the expense of

physical inactivity, followed by stress as the most affected factors in his new stage (GREENBERG, 2002). Emotional overloads are related to the excess of disciplinary content, and are related to grades and assignments, as they need to be approved in several subjects each semester. Because they feel overwhelmed, they have changes in their well-being, in psychological, physical, mental and even social aspects, and may even develop various health disorders, to the detriment to a drop in the immune system, due to their new lifestyle (GREENBERG, 2002). Shyness is another factor that interferes with the social, and even the performance of college students, whether being afraid of checking their doubts, communicating and / or expressing their own opinions.

Many students who have this characteristic trigger consequences, become more stressed, are more likely to develop depression, anxiety, and other negative feelings (GREENBERG, 2002). Anxiety is generated as a way of protecting the individual as a defender of some kind of conflict, a threat that can lead to changes in the autonomic nervous system. The autonomic nervous system aims to assist and make decisions and preventive measures for our health (VASCONCELOS; COSTA & BARBOSA, 2008). Individuals suffering from anxiety disorder may experience symptoms such as sweating, increased blood pressure, pupil dilation, and tachycardia (RODRIGUES, 2010). With stress, pressure and anxiety to the detriment of worrying about grades and school performance, many college students, to 'run away from problems', end up using alcohol. In Brazil, the use of alcohol has been related to low academic performance (SILVEIRA *et al.*, 2008), auto accidents (DUAILIBI; LARANJEIRA, 2007; STOLLE; SACK; THOMASIU, 2009) and violence (DUAILIBI; LARANJEIRA, 2007; STOLLE, SACK; THOMASIU, 2009; mccoey *et al.*, 2010). Cocaine is one of the most commonly used drugs in Brazil, with estimated use of about 5 million Brazilians aged 18 and over, thus making Brazil the country with the highest numbers of drug users (LUCCHETTI *et al.*, 2014). Lifestyle is seen as another factor that interferes with the well-being of college students. When talking about lifestyle, it can be defined as behavioral patterns of individuals and is directly related to their attitudes (WORLD HEALTH ORGANIZATION, 1998). Other lifestyle factors are safer sex, stress control, interpersonal relationships, avoiding tobacco and alcohol (CSEF - CANADIAN SOCIETY OF EXERCISE PHYSIOLOGY, 2003). Thus, the present study aims to investigate, according to the literature, the main styles and lifestyle quality of college students, in order to demonstrate which of these factors may interfere directly in the quality of life of this population.

## METHODS

To meet the proposed objective, a systematic literature review was carried out, with a rigorous search for studies on the theme, and thus limiting possible biases during the selection process (MENDES, 2014).

**Databases and Bibliographic Search:** The survey of the productions for the preparation of this study took place in March 2020, and was carried out through extraction in the PubMed database, in order to use both national and international literature articles, including studies in the areas of health and psychology, and to point out the obtained results. After defining the search bases, the research question was elaborated through the PICO strategy (MENDES; SILVEIRA; GALVÃO, 2014): "What factors interfere in the quality and lifestyle of university students?". In which the population is university students and the intervention is the analysis between their quality and lifestyle. The search for the articles was carried out by two independent judges, using keywords defined by the Health Sciences Descriptors (DECs): "quality of life" AND "life style" AND "university" AND "student", associates with the Boolean AND operator.

**Inclusion and exclusion criteria:** We chose to include only articles, according to the following criteria: empirical articles that collected data on the quality of life of the participants through some type of instrument (questionnaire, form, interview, observation protocols) to verify aspects of quality of

life for university students; published in the last 10 years (2009 - 2019), in Portuguese, Spanish and English; that refer to aspects about the style and quality of life of university students. As exclusion criteria, it was established: repeated articles, articles that did not meet the question of seeking the guiding question. The exclusion criteria were: theoretical studies, studies with a qualitative approach.

**Data extraction:** The studies were initially selected by reading their respective titles and abstracts, based on the inclusion and exclusion criteria. Subsequently, the full texts of the selected articles were analyzed. To this end, an instrument was developed to extract the following data: authors, year of publication, country of development of the study, sample number (intervention group and control group), age of the subjects, characteristics related to the questionnaires used and main results. The electronic search consisted of selecting the scientific articles according to the previously mentioned inclusion and exclusion criteria, in which after performing the filtering, a total of 166 eligible articles were found, and 16 articles comprised our sample for presenting the criteria of inclusion criteria. Following is the step of the article inclusion and exclusion process described in the following flowchart. The presentation of the discussion and the results of the articles was made descriptively, in order to interpret the quality of life and lifestyle data of college students.

## RESULTS

Table 01 presents information on the 16 eligible articles that were selected to compose the review. It was found that the works were performed with participants of both sexes. Regarding the age of the participants of the selected articles shows information on the 16 eligible articles selected for review. It was found that the studies were carried out with participants of both sexes. Regarding the participants' age, selected articles presented a variation in the age range between 17 and 48 years, from 13 different nationalities (Brazil, United Kingdom, Egypt, Spain (2), United States, Australia, New Zealand, Iran, China (3), South Korea, Lithuania, Korea, Mongolia).

## DISCUSSION

In general, it was observed that most students have a poor quality of life, especially participants in health, with medical students with even lower scores. When comparing aspects related to quality of life among college students regarding gender, it can be inferred that women have a more compromised quality of sleep compared to sleep, and that male students perform more physical activity, and a similarity is observed. Regarding the self-assessment of their own quality of life by participants of both sexes. It was observed that the domain of quality of life that is predominantly most cited as impaired was the psychological. Among the selected articles, five verified participants' quality of life through WHOQOL-BREF; three articles assessed lifestyle through the HPLP II questionnaire and four used the PSQI. The WHOQOL-BREF used to assess quality of life contains 26 questions, the first two of which refer to the self-assessment of their quality of life. The other 24 questions are divided into four domains: physical (seven questions), psychological (six), social relations (three), environment (eight) (CHACHAMOVICH; FLECK, 2008). All questions in this questionnaire were formulated for Likert-type answers, with intensity scale (nothing / extremely),

Table 1. Results of the articles found in the present review

Authors (year)	Population	Evaluation Instrument	Results (according to the evaluation instrument)
HASSED <i>et al.</i> ,(2009)	148 undergraduate medical students; 85 participants were female and 63 were male.	1. Symptom List (MS-90-Revised) for diagnosing psychopathological symptoms, with 90 questions, according to 9 dimensions: somatization, obsessive-compulsivity, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideas, and psychoticism. 2. Validated quality of life questionnaire, WHOQOL-BREF, contains 26 questions rated on a Likert scale from 0 to 5 points.	1. Participants had higher rates of depression than anxiety and hostility. 2. For the quality of life, the psychological domain presented greater negative variation compared to the physical domain.
MESQUITA; REIMÃO,(2010)	710 college students; 224 female and 486 male.	1. Pittsburgh Sleep Quality Index (PSQI), with 19 questions, divided into six subscales (subjective quality, sleep latency, sleep duration, sleep effectiveness, sleep disturbance, if any medication is taken and its daily dysfunction) being classified from zero to three points, where zero to four is good, five to ten is bad and greater than ten has sleep disorder.	1. Among participants, 50.38% poor quality of sleep and 39.72% good quality. There was no significant difference when comparing sleep quality between women (60.91%) and men (58.93%).
PREISEGOLAVICIUTE; LESKAUSKA; ADOMAITIEE, (2010)	387 from four Lithuanian universities, being from the first and fourth year of medicine (138), law (116), business and economics (133); 73.3% were female and 26.7% male.	1. Pittsburgh Sleep Quality Index (PSQI). 2. Lifestyle, questionnaire structured by the researchers, which contains 10 questions, in Likert scale, in relation to their social activities, self-esteem, physical activity, relation to sexual life, medication use and quality of sleep.	1. Medical students have a lower quality of sleep compared to law, economics, and business as they wake up earlier and have a shorter sleep duration. Regarding the use of medications to facilitate sleep, 8.7% of medical students report using, followed by students of economics and business (6%) and law students (3,5). Women have higher sleep quality scores at 6.3 hours and men at 5.7 hours. On the impact of sleep quality, mood and behavioral changes have been reported. Many reported poor sleep quality due to lack of concentration and mental and emotional exertion. 2. When analyzing leisure activities, economics students have an average of 4 hours of leisure per day and medical and law students an average of 3 hours per day. Medical and law students spend more time studying (8 hours a day) than business and economics students (5 hours a day). When comparing sleep quality with lifestyle, it was possible to analyze that students who study hard, have a poor quality of sleep, and are not satisfied with their results and achievements.
MORENO-GÓMEZ <i>et al.</i> ,(2012)	113 students, 43% female and 54% male.	1. Sociodemographic and anthropometric (age, sex and body mass index) Questionnaire. 2. Lifestyle (alcohol intake and tobacco use). 3. Practice physical activity (practice some sport).	1. A total of 113 students aged 17 to 48 years old with BMI in body weight, normal weight, overweight and obesity, in which men were 2.7%, 76%, 19.20% and 2% 12.8%, 82, 80%, 4.20% and 0.2% respectively. 2. Among participants 80% of participants reported using alcoholic beverages, with more wine, spirits and beer being consumed. 35.9% report using tobacco, 27.1% use it regularly and 8.8% occasionally. 3. Men practiced more soccer and women more swimming or gym. Of the participants who practiced physical activity 85.7% practiced three or more hours per week.
HENNING <i>et al.</i> ,(2012)	262 medical students from the fourth and fifth years; 150 female and 122 male.	1. WHOQOL-BREF.	1. Medical students had low quality of life scores in all domains (physical, social, environmental, psychological and health).
HOSSEINI <i>et al.</i> ,(2015)	404 college students, 27.9% female and 34.6% male.	1. Sociodemographic Questionnaire. 2. HPLP II, contains 52 questions that evaluate health-promoting behavior on six subscales: nutrition, physical activity, health responsibility, social relationship, stress control, and spiritual growth.	1. Regarding marital status, 88.8% of female participants were single and 90.6% of male participants were single. 2. Women had greater stress control, spiritual growth, and health than male participants. Regarding the practice of physical activities, men had higher practice scores than women.

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**Table 1. Results of the articles found in the present review**

RIZO-BAEZA, BRAUER; CORTÉS (2014)	184 university students, who were from the nutrition (96) and nursing (88) courses. Of these 74.98% female and 20.1% male.	<ol style="list-style-type: none"> <li>1. Student data (name, gender and gender).</li> <li>2. Physical activity questionnaires, hours of sleep.</li> <li>3. Dietary lifestyle quiz (number of daily meals, calculate nutrient intake through Easydiet program).</li> <li>4. Analysis of Body Mass Index (BMI) (anthropometric data and divided into low weight; normal weight; overweight / obesity).</li> </ol>	<ol style="list-style-type: none"> <li>1. The participants were 74.98% female and 20.1% male.</li> <li>2. Regarding physical activity when comparing college students, men performed more physical activities than women. And when analyzing the nutrition and nursing courses, they reported that the nutrition groups practiced more physical activities with a variation of 2.8, however, there was still a greater case of physical inactivity in college students of a nutrition course with a variation of 2.2.</li> <li>3. Everyone reported that breakfast is the most important meal, but 7.5% of nutrition and 4.5% nursing students reported not having breakfast. All students make excessive use of protein and fat and low carbohydrates. Participants in the nutrition course presented carbohydrates (8.2%), proteins (5.9%) and fats (7.5%) while nursing (7.1%), (5.6%) and (7), (3%)%, respectively</li> <li>4. Anthropometric assessment was made in the nutrition students and classifying them into groups of low weight (2.1%), normal weight (80.2%), overweight (12.5%) and obesity (4.2%). And in nursing, underweight (5.7%), normal weight (79.5%), overweight (13.6%) and obesity (1.1%).</li> </ol>
ANSARI, OSKROCHI &HAGHGOO (2014)	6977 university students, 3706 from the UK and 3271 from Egypt. In Egypt 77.9% were female and 22.1% were male and in the UK 52.5% female and 47.5% male.	<ol style="list-style-type: none"> <li>1. Sociodemographic questionnaires.</li> <li>2. Health and Wellbeing Questionnaire (report on self-rated health, health awareness).</li> <li>3. Lifestyle (if you use tobacco, chemicals, alcohol)</li> <li>4. Perceived stress scale (contains four items, ranging from zero to five points, where zero is never and four, quite often, and the 21 symptoms (21 symptoms in which participants reported multiple health complaints which range up to four points, where zero is never and 4 often. Higher scores indicate high stress.</li> </ol>	<ol style="list-style-type: none"> <li>1. In Egypt 22.1% were male and 77.9% were female. In the United Kingdom 47.5% males and 52.5% females. Regarding the age of college students in Egypt, 30.9% were under 20, 24.1% between 21 and 24 and 45% were over 24. Compared with the UK 85.6% were under 20 12.4% between 21 and 24 years and 2% greater than 24. In Egypt: 42.6% (first year), 31.3% (second year), 18.7% (third year) and 7.5% (fourth year). In the United Kingdom; 33.6% (first year), 28.5% (second year), 26.8% (third year) and 11.10% (fourth year).</li> <li>2. Regarding health and well-being, they were divided into Subjective health status, awareness of their own health, and body mass index. Regarding health status In Egypt, 47.50% reported excellent health, 41.80% good and 10.70% poor. In the United Kingdom 18.40% have excellent health, 47.20% good health and 34.40% poor. Having Egypt better health conditions compared to the United Kingdom. In raising awareness about their own health in Egypt participants who reported not being at all concerned about their health were 17.7% and quite 82.30%, in the UK 25.30% and 74.70% respectively. In BMI, in Egypt 4.20% were considered as underweight, normal weight 54.9%, overweight 22.9% and obesity 18%, in the UK were 6.1%, 62.8%, 21.7 % and 9.5%. Having the UK with better BMI, except for underweight.</li> <li>3. Both countries reported neither smoking nor using drugs. United Kingdom has better smoking rate (91.20%) reported never having smoked and 95.50% never used drugs. In Egypt, 72.3% do not smoke and do not use (69.7%) narcotics. When comparing poor, good, and very good quality of life, in Egypt 7.7% report having poor quality of life, and in the United Kingdom 13.20%. 27.70% in Egypt report good quality of life, and in the UK 48.50%, and when analyzing excellent / very good quality of life 64.60% in Egypt and 38.30% in the United Kingdom.</li> <li>4. When analyzing the psychological symptoms, the most reported among participants were difficulty concentrating and anxieties. Regarding pain, report low back pain, fatigue and migraines.</li> </ol>

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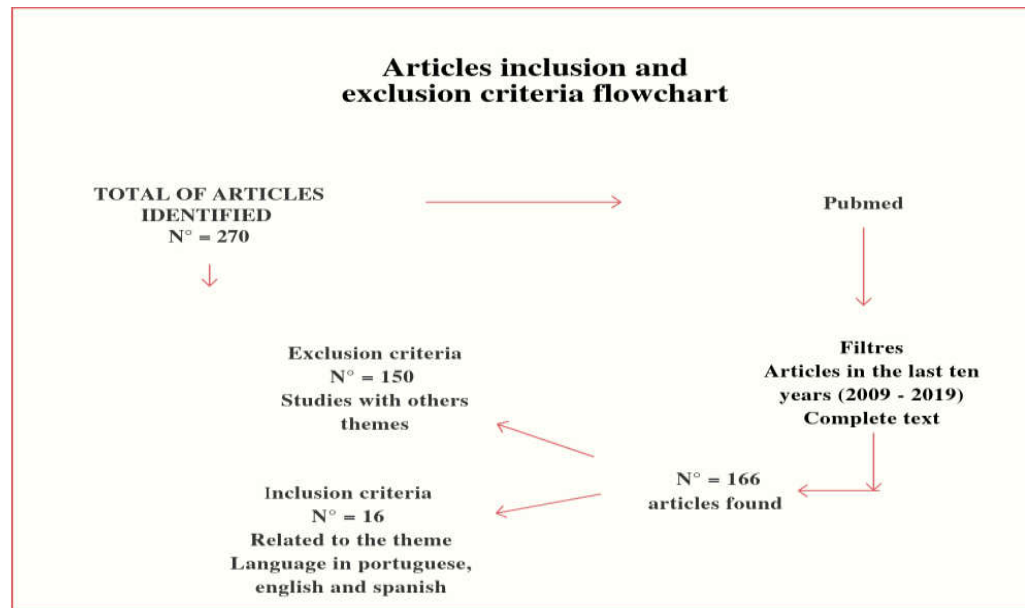
DINZEO; THAYASIVM; SLEDJESKI,(2014)	377 college students; and 238 females and 139 males.	<p><b>1. Lifestyle and Habits</b> Questionnaire-brief version (LHQ-B), which are the eight domains: physical health and exercise, psychological health, substance use, nutrition, environmental concern, social concern, accident / prevention, and sense of purpose.</p> <p><b>2. Quality of life inventory</b> (self-assessment with 32 questions to assess health subjectively in 16 domains; health, self-esteem, goals and values, work and recreation, social (interpersonal) relationship, and environment.</p> <p><b>3. Stress scale</b> (rated subjectively, rated from 0 to 100, where 100 was extremely stressed.</p>	<p><b>1.</b> The domains of psychological health, physical health and exercise, and sense of purpose were the best predictors of QOL while psychological health, social concern, and the accident prevention domains predicted levels of stress.</p> <p><b>2.</b> The ones that obtained the greatest variations were in relation to environmental concern, nutrition and sense of purpose, respectively. Regarding environmental concern, men have an average of 3.45 and women 4.57 with a variation of 0.033; nutrition men present an average of 2.82 and women 2.93, with a variation of 0.275; followed by sense of purpose in men with an average of 3.87 and women of 3.97, with a variation of 0.267</p> <p><b>3.</b> Participants presented negative stress with current stress levels and physical and psychological domains.</p> <p><b>4. Comparison:</b> the physical and psychological domains were the ones that presented negative reaction with stress, and the other six domains showed no significant relationship with stress.</p>
JIN <i>et al.</i> , (2014)	1632 university students; 1289 females and 343 males.	<p><b>1.</b> Sociodemographic questionnaire.</p> <p><b>2.</b> Lifestyle habits (smoking, alcohol use, physical exercise, social relationship).</p> <p><b>3.</b> Social environment assessment (social support, integration and social stress were assessed.</p> <p><b>4.</b> PSQI.</p>	<p><b>1.</b> (343) 21% were male and (1289) 79% female.</p> <p><b>2.</b> Women have better lifestyle outcomes than a cigarette that 99.3% do not smoke, with 79.6% of men reporting no smoking. Women are more physically active than men, 43.7% engage in activities more than three times a week, and men only 25.2%.</p> <p><b>3.</b> Regarding the social environment, both sexes are protected, men (73.8) and women (70.8%).</p> <p><b>4.</b> During pain, the quality of sleep is compared with men and the latency period is longer than 30 minutes. 33.2% men reported well and women 22.6%. 45.2% men reported sleeping quite well and 54.4% women; Evil Evil Evil as the score of women with worst scores (20.9%) and men (19.5%). In relation to those who sleep a lot, scoring with earlier woman has worse score, with 2.2% to 2% of men.</p>
MOURA <i>et al.</i> , (2016)	206 university students; 77.7% female and 23.3 male.	<p><b>1.</b> WHOQOL-BREF.</p>	<p><b>1.</b> 51.9% were between 18 and 21 years old. 85.9% only studied 6.3% studied and worked (formal) and 7.8% studied and worked (informal). 88.8% were single and 89.3% had no children. 64.6% were from another city and 41.3% lived with parents.</p> <p>56.8% consider good health, 28.2% neither good nor bad, 9.7% very good, 4.8 as poor and 0.5 as dissatisfied. The question about their health conditions shows that 51.5% were satisfied, 26.2% find neither dissatisfied or satisfied, 10.6% dissatisfied, 10.2% are satisfied and 1.5% very dissatisfied. When evaluating the domains, the environmental and psychological environments presented lower scores and the social domain has its highest.</p> <p>78.6% of the participants were sedentary, and the others did weight training (44.1%), walking (17.6%), running (16.1%) and cycling (10.3%).</p>

Xu <i>et al.</i> , (2016)	1907 college students in Guangzhou, southern China; 1017 female and 890 male.	<ol style="list-style-type: none"> <li>1. Depression Scale of the Center for Epidemiological Studies (CES-D) (20 items containing six subscales; mood and depression, feeling of guilt and worthlessness, feeling of helplessness and hopelessness, psychomotor retardation, loss of appetite and sleep disturbance).</li> <li>2. Lifestyle (students reported).</li> </ol>	<ol style="list-style-type: none"> <li>1. Participants were between 17 - 27 years old, with an average age of 19.5 + 2.4 years. Regarding academic stress, most report high and medium stress (39.9%), (55.1%), respectively, and only (5%) reported low stress. Participants who smoke, have poor and poor quality of sleep, did not practice physical activities have a higher prevalence of depressive symptoms.</li> <li>2. Students report their quality and duration of sleep, duration spent on the internet, drinking alcohol, smoking, physical activity and leisure, stress. Regarding the eight lifestyle items (sleep quality, sleep duration, internet, breakfast, tobacco, alcohol, physical activity per week and leisure time, it was almost the same for men and women, except for internet use). in which women used more than men and in relation to leisure men practiced more leisure compared to women.</li> </ol>
WANG <i>et al.</i> , (2016)	6085 college students; 4425 female and 1660 male.	1. PSQI.	1. 476 (28.7%) of the participants were male with poor sleep quality and female (1218) 37.8%.
JUN; LEE,(2017)	286 female college students (nurses, social science, engineering, arts, music, and physical education); 146 undergraduate nursing students and 140 undergraduate students from the other courses.	<ol style="list-style-type: none"> <li>1. Sociodemographic Questionnaire.</li> <li>2. Stress and Anger Inventory (STAXI-K) (SPIELBERGER; KRASNE; SOLOMON, 1988), was used to evaluate expression of anger and rage, in which 24 questions examining anger, anger management, and condition status were listed. rabies. using the Likert scale.</li> <li>3. Stress Scale (RLSS-CS), created by (CHON; KIM; YI, 2000) to assess undergraduate negative situations, which contains 50 same-sex, opposite-sex, family, academic issues , financial problems, concerns about future career and personal problems and used the Likert scale.</li> <li>4. Multidimensional Perceived Social Support Scale (MSPSS)contains 12 questions and uses the Likert scale.</li> </ol>	<ol style="list-style-type: none"> <li>1. 24.7% of university students in the nursing course were first year, second (20.5%), third (28.8%) and fourth (26%) students. And overall when analyzing all the courses 32.1% of the first year, 27.9% of the second, 19.3% of the third and 20.7% of the fourth. Nursing students believed more in religion than in analyzing the courses in general, with 54.8% and 43.6% respectively.</li> <li>2. Analyzing the nursing course with other courses, rabies did not present significant changes, since nursing had an average of 2.05 and other courses of 1.92, with a variation of 0.015.</li> <li>3. Life stress scores did not show significant differences, since nursing was average of 1.97 and compared to other courses of 2.07, with a variation of 0.153. However, academic stress presented significant variations, with nursing stress higher (2.77) compared to general courses (2.56), variation of 0.043.</li> <li>4. Regarding the social support of nursing family members reported an average of 1.54, and general courses of 1.61, with a variation of 0.488, and social support of 4.29 and 4.12, respectively, with a variation of 0.03.</li> </ol>
SEO <i>et al.</i> , (2018)	187 participants from the university health center in Korea. 54% are female and 46% were male, with 86 and 101 participants, respectively.	<ol style="list-style-type: none"> <li>1. Perceived Stress Scale.</li> <li>2. Depression Scale of the Center for Epidemiological Studies (CES-D).</li> <li>3. HPLP-II.</li> <li>4.WHOQOL-BREF.</li> </ol>	<ol style="list-style-type: none"> <li>1. The perceived stress level had an average of 20.02 to 40 and quality of life of 55 to 80.</li> <li>2. Depressive symptom scores were 19.10% and 61.4% of participants had high symptoms of depression.</li> <li>3. Of the 187 participants, 82.4% report no smoking, 8% report being former smokers and 9.6% frequently smoke. In alcoholic beverages, participants who report drinking once a week (42.3%), being higher than those who do not drink (35.8%).</li> <li>4. In the quality of life domains, the domain with the lowest scores was the psychological domain (13.65 - 20), with a variation of 6.35. Secondly the social domain of 13.73 - 20 with variation of 6.27; third the environmental domain 13.78 - 20 with variation of and lastly the physical domain of 13.84 - 20, with variation of 6.16.</li> </ol>

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<p>MAK <i>et al.</i>, (2018)</p>	<p>538 participants, 73% were female (392) and 27% were male (146)</p>	<p>1. Sociodemographic Questionnaire. 2. HPLP-II. 3. YRBS (Youth Risk Behavior Survey), validated It contains six questions: violence, tobacco use, alcohol and narcotic drinks, sexual intercourse (unwanted pregnancy and STD), eating habits and physical activity (Eaton <i>et al.</i>, 2008). 4. WHOQOL-BREF.</p>	<p>1. 32% were under 20 years old, 64% were 21-25 years old and 22% over 25 years old. 55% were in the first year of college, 14% in the second year, 23% in the third year and 9% in the fourth year. 98.7% reported being single; 0.9% married and 0.4 consider it as others. 2. Total lifestyle was 128.2 with an average of 17.4. Participants had higher rates of interpersonal relationships and lower rates of physical activity. 3. Many reported not smoking (95%), not using narcotics (99%), not frequent alcohol use (77%). Regarding sexual intercourse (79%) reported never having had sex and (93%) use preventive methods. 4. Quality of life also showed higher index in interpersonal relationship (social domain) and lower index (physical domain). In second place with better index was the environment, followed by the psychological domain.</p>
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Note. MS-90-Revised = Symptom List; WHOQOL-BREF = Quality of life questionnaire; PSQI = Pittsburgh Sleep Quality Index; HPLP II = Health Promoting Lifestyle Profile II; BMI = Analysis of Body Mass Index; LHQ-B = Lifestyle and Habits Questionnaire-brief version, CES-D = Depression Scale of the Center for Epidemiological Studies; STAXI-K = Stress and Anger Inventory; RLSS-CS = Stress Scale; MSPSS = Multidimensional Perceived Social Support Scale; YRBS = Youth Risk Behavior Survey.



Source: developed by the authors

Frame 1. Articles inclusion and exclusion criteria flowchart

capacity (nothing / completely), frequency (never / always) and evaluation (very dissatisfied / very satisfied; very poor / very good). ). The scores are transformed into a linear scale ranging from 0-100, which are respectively the least and most favorable values of Quality of Life (KLUTHCOVSKY, 2009). HPLP II is a version of the lifestyle questionnaire that was conducted by Walker *et al.* (1995) and their second version of lifestyle was called (HPLP II), which was validated in Portuguese by Mohammadi Zeidi, Pakpour Hajiagha, Mohammadi Zeidi (2012). The original version contains 52 questions that evaluate health-promoting behavior on six subscales: nutrition, physical activity, health responsibility, social relationship, stress control, and spiritual growth. The PSQI was developed by Buysse *et al.* (1989) to assess sleep quality and disturbances for one month and was validated in Portuguese by Bertolazi *et al.* (2011). The questionnaire assesses subjective quality, sleep latency, sleep duration, sleep effectiveness, sleep disorders, medication intake, and daily dysfunction (BERTOLAZI *et al.*, 2011).

The domain of quality of life of university participants who predominantly had the lowest score was the psychological domain. (SEO *et al.*, 2009). Moura *et al.*, (2016), compared health conditions among college students of both sexes, most of whom considered their own health as good. Several factors may be influencing undergraduate students to have a poor quality of life in relation to the psychological domain, for example, excessive workload and academic pressures (STEWART *et al.*, 1995; DYRBYE; THOMAS; SHANAFELT, 2006). Several factors may influence the quality of life of undergraduates, such as stress, undergraduates with high levels of academic stress associated with physical inactivity, chemical intake and even poor sleep quality had higher incidences of depressive symptoms Seo *et al.*, (2018) AND XU *et al.*, 2016) sleep is one of the factors that interfere with quality of life, as the quality and quantity of sleep can alter psychological, cognitive and even behaviors of immune system (LI *et al.*, 2014). The psychological domain and environment are the most negatively affected due to academic stress. In the article by Moura *et al.*, (2016) an investigation was made among nursing students, however the lack of time becomes an obstacle to its realization. Strategies to improve the quality of life of these undergraduates range from physical activity practices to lectures to raise awareness of a healthy diet and psychological support for better stress management (MOURA *et al.*, 2010).

Students from the health area have high demands on their workload and are more likely to develop deterioration in their health, especially their psychological state (GUTHRIE *et al.*, 1998; PICKARD *et al.*, 2000; INAM; SAQIB; ALAM 2003; RADCLIFFE; LESTER 2003; KIESSLING *et al.*, 2004; DAHLIN; JONEBORG; RUNESON, 2005; NIEMI; VAINIOMAKI. 2006; DYRBYE; THOMAS; SHANAFELT, 2006, DYRBYE *et al.*, 2008; COMPTON; CARRERA; FRANK, 2008; ROH *et al.*, 2009). Among these factors are anxiety and depression, which may be consequences of excessive study demands (DYRBYE; THOMAS; SHANAFELT, 2006). Prevention strategies are important to minimize stressful situations in everyone's daily life, being important attention (SONG; LINDQUIST, 2014) focused on cognitive and behavioral stress, physical activity (BAGHURST; KELLEY, 2014) and even leisure time (YARNAL *et al.*, 2013) for stress reduction, being of paramount importance for improving quality of life.

Depression is a very common mental disorder in college students, with estimated involvement of approximately 30.6% of this population (IBRAHIM *et al.*, 2013). Depression has been cited as one of the symptoms that most affects and causes damage to the quality of life of young college students worldwide. It is important to point out that the practice of adequate lifestyle (physical activity, sleep quality improvement, adequate diet and leisure and fun) and programs for the prevention of depression and anxiety are directly related to the reduction of depressive symptoms (XU *et al.*, 2016). When comparing medical students with students in other courses, they have reduced scores in all domains analyzed (physical, environmental, psychological and social) (HENNING *et al.*, 2012). It has been found that undergraduate medical students have a higher prevalence of psychological changes and higher incidence of depression (STEWART *et al.*, 1995; DYRBYE *et al.*, 2006). Stress among nursing students may cause several health-impairing symptoms (REEVE *et al.*, 2013). Anger is another characteristic that can cause unhealthy behavior, and is often associated with symptoms of depression and anxiety (MACNEIL *et al.*, 2010). In analyzing the health-promoting style, females were superior to males, but not significantly. It was reported in the Hong study that both sexes did not show significant differences in health behavior (HONG; SERMSRI; KEIWKARNKA, 2007). Depressive symptoms affected the quality of life of students affected by stress, and it is important to identify these symptoms and lifestyles and thus promote improved quality of life and stress management (SEO *et al.*, 2018).

Sleep quality, physical activity, diet and use of chemical substances were the main lifestyles mentioned in the studies analyzed, which may be influencing the quality of life of university students. The identification of these factors is extremely important for the classification of the population's health as a whole (DANAIE; DING; MOZAFFARIAN, 2009). Sleep is one of the factors that interfere with our health and social relationship (HALE, 2010). Having educators and teachers make students aware of the quality and duration of sleep, raise awareness about the importance of social relationship, in relation to peers and family relationship, as well as the psychological support for students to deal with the problems of the day to day (JIN *et al.*, 2014). It is concluded that medical students have worse sleep quality due to excessive demands of workloads and academic pressure. It is then necessary to adjust factors that are related to this aspect, such as increased interpersonal relationships, physical activity at least three times a week, adequate nutrition, and awareness of their health and well-being (WANG *et al.*, 2016). It is also concluded that the use of computers interferes with students' sleep quality (MESQUITA & REIMÃO, 2010). Medical students spend more hours studying compared to law and economics students, thus having a higher level of stress and poor sleep quality due to the required academic pressures. It is concluded that medical students should receive more guidance on the importance of good sleep quality and psychological support for stress control (PREISEGOLAVICIUTE; LESKAUSKAS; ADOMAITIENE, 2010). Moura *et al.*, 2016, physical inactivity is characterized as the practice of physical inactivity and has been increasingly prevalent among college students, being negatively impacted on their health. Males are more physically active than females Jin *et al.*, (2014) and Rizo-Baeza; Brauer; & Cortés (2014), being the most preferred sports among males is soccer and for the female swimming and gym, Moreno-Gómez *et al.*, (2012). In general, it can be



said that students appeared to have a food imbalance, with higher lipid and protein intake and lower carbohydrate intake and micronutrient deficit (MONTERO; ÚBEDA; GARCÍA, 2006). When comparing nutrition and nursing students, no significant differences were found in relation to their eating habits, even though nutrition students have sufficient knowledge to eat properly (STATUS, 1995). The results show that the students of nutrition and nursing eat an inadequate diet, thus not practicing the eating habits they receive during college (RIZO-BAEZA, GONZÁLEZ-BRAUER, & CORTÉS, 2014). The practice of physical activity has been less mentioned in relation to lifestyle, due to the fact that many university students are sedentary (ARIAS- PALENCIA *et al.*, 2015). Thus, a systematic review was performed in which the use of lifestyle-related interventions (physical activity and adequate nutrition) are effective for promoting good health (PLOTNIKOFF *et al.*, 2015). Lifestyle influences the health of individuals, improper eating habits, tobacco use and alcoholism can lead to higher morbidity and even lead to mortality (MOKDAD *et al.*, 2004). Therefore, it is necessary to create new programs to promote the health of the population as a whole, especially aimed at improving the quality and lifestyle of students (NEINSTEIN, 2008). Tobacco risk factors and physical inactivity are more prevalent in Spanish university students, and it is important to conduct campaigns to encourage physical activity and thus enable and provide better quality of life (MORENO-GOMEZ *et al.*, 2012). When compared with Egypt, the United Kingdom is found to be a country with higher rates of intake and use of tobacco, illicit drugs and alcoholic beverages (ANSARI; OSKROCHI; HAGHGOO, 2014), and it is suggested that they make use of these factors risks to cope with stress, therefore, further studies are necessary to verify which are the main factors that are influencing the life habits of these undergraduates in both.

Nursing students reported their stressful experiences with their group or instructor, being effective for social support and facing their difficulties (CHA; LEE, 2014; REEVE *et al.*, 2013). It is concluded that stress has been affecting university students as a whole, however health care needs training and psychological support for stress control, especially in medical and nursing students (JUN; LEE, 2017). The first study on health promotion in Iran was conducted where the evaluations of nursing undergraduates were evaluated for the purpose of new health promotion planning and practice (HOSSEINI *et al.*, 2015). Physical activity and stress may be related to awareness, and it is important to emphasize the importance of lifestyle and the biopsychosocial, spiritual and mental well-being of students (DINZEO; THAYASIVAM; SLEDJESKI, 2013). In addition, stress self-care and lifestyle prevention programs provide students with a higher quality of life (HASSED *et al.*, 2009). It is concluded in this study that undergraduates in general have a reduction in their quality of life, requiring further studies for better understanding and the realization and planning for new strategies to improve this aspect (HENNING *et al.*, 2012). This study aimed to verify in the present literature information regarding the quality and lifestyle of college students. From this literature review it was found that several authors have demanded attention to the health and well-being of this public, however further investigations are still needed. It was observed that in most studies there was a greater participation of females, but there is no comparison if they are proportionally represented in the academic community. Another important caveat is that all the authors mentioned in this review presented only observational

data, not performing any intervention to promote an improvement in the quality and lifestyle of college students.

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