# Anxiety and depression in university students: relationship with academic performance

## Ansiedad y depresión en estudiantes universitarios: relación con rendimiento académico

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**Abstract**

**Introduction:** University students are at higher risk of anxiety and depression than the general population. Mental disorders have been associated with psychoactive substance abuse and can lead to poor academic performance, desertion, and suicidal behavior.

**Objective:** To determine the prevalence of anxiety and depression in university students, identify associated factors, and effect on academic performance.

**Methods:** Narrative review of the literature published in PubMed and other databases, that reported prevalence of anxiety and depression in the university between 2000 and 2017.

**Results:** Were found 14 studies in 11 countries. The prevalence range found was 16.0-76.0% (anxiety) and 9.6-74.4% (depression). Two studies with confirmatory diagnosis reported prevalence between 37-57% (anxiety) and 38.0-50.6% (depression). In Colombia, the prevalence of anxiety in university students ranged from 34.0 to 76.2% and for depression from 9.6 to 74.4%. For both mental disorders, risk factors included: female sex, long daily commutes to access university, living outside the family home, having other extra-academic obligations, having financial difficulties, lower socioeconomic status, consumption of alcohol, moderate and severe family dysfunction, history at least one traumatic event and a family history of mental illness or dysfunction. Protective factors included: physical activity, belonging to a group, and good sleep quality. Four out of six studies that investigated the association between anxiety/depression and academic performance, reported a positive association.

**Conclusions:** University students have a higher prevalence of anxiety and depression than the general population worldwide. Conditions that indicate social disadvantage are associated with worse mental health, which could affect academic performance.

**Resumen**

**Introducción:** Los estudiantes universitarios presentan mayor prevalencia de ansiedad y depresión que la población general. Puede cursar con el abuso de sustancias psicoactivas y conducir a mal rendimiento académico, deserción y conductas suicidas.

**Objetivos:** Identificar la prevalencia de ansiedad y depresión en estudiantes universitarios, los factores asociados y su relación con el rendimiento académico reportados entre 2000 y 2017

**Métodos:** Revisión narrativa de la literatura publicada en PubMed y otras bases de datos.

**Resultados:** Se encontraron 14 estudios en 11 países (2000-2017). Las prevalencias oscilaron entre 16.0-76.0% (ansiedad) y 9.6-74.4% (depresión). Dos estudios con diagnóstico confirmatorio reportaron prevalencias entre 37-57% (ansiedad) y 38.0-50.6% (depresión). En Colombia la prevalencia de ansiedad en estudiantes universitarios osciló entre 34.0-76.2% y depresión 9.6-74.4%, 38.0% para diagnóstico confirmatorio especializados. Los factores asociados establecidos fueron: sexo femenino, largos desplazamientos diarios para acceder a la universidad, vivir fuera del domicilio familiar, tener otras obligaciones extra académicas, tener dificultades económicas, pertenecer a niveles socioeconómicos bajos, consumo de alcohol, disfunción familiar moderada y grave, y haber presenciado al menos un evento traumático y antecedentes familiares de enfermedades mentales o disfunción. Los factores protectores reportados: realizar actividad física, pertenecer a un grupo, buena calidad del sueño. Seis estudios investigaron la asociación entre ansiedad/depresión y rendimiento académico, cuatro reportaron asociación positiva.

**Conclusiones:** La ansiedad y depresión en estudiantes son superiores en países del tercer mundo. Condiciones que indican desfavorecimiento social se asocian con peor salud mental y pero rendimiento académico en estudiantes universitarios.

## Contribución clave del estudio

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|---|---|
| **Objective** | To identify the prevalence of anxiety and depression in university students, its associated factors and their relationship with academic performance reported in the literature from 2000-2017. |
| **Study design** | Narrative review of the literature published in PubMed and other databases. |
| **Information source** | Surveys |
| **Population / sample** | 14 studies in 11 countries (2000-2017). |
| **Statistical analysis** | A search strategy was carried out in the regional portal of the VHL virtual health library (Lilacs and Ibecs), Medline and in the Science Direct portal using the DeCS terms "prevalence, "anxiety", "depression", "university students", "epidemiological surveys", "mental health" and "mental disorders" |
| **Main findings** | Anxiety and depression have a prevalence of up to 74% and 76% respectively which is higher than the European prevalence of 47.1%. Anxiety and depression are associated with gender (female), long journeys, living outside the family home, having caregiver responsibilities, sexual orientation, alcohol consumption, moderate and severe family dysfunction and having a history of a traumatic event. A direct impact on academic performance was also reported. Protectors include physical activity, belonging to a group and good quality sleep |

## Introduction

The fourth objective of the United Nations (UN) Sustainable Development Goals is to guarantee inclusive, equitable, quality education and to promote lifelong learning opportunities for all. The UN proposes that all young people should complete the full cycle of basic education and continue with higher education or with an education that provides them with knowledge, skills and competencies for work, entrepreneurship and an active life. This is identified as a viable path towards social development and sustainable economy for both communities and nations. This strategy highlights the importance of education at the intergenerational level, since for every year of education a mother has received, her child receives an average of 0.32 years of additional education. This suggests that parents who have completed their studies are more likely to educate their children and that their children will exceed the educational levels reached within the educational system by their parents (1). This transition is, however, often interrupted by dropout.

University dropout is reflected in multiple factors: personal, academic, socioeconomic and/or institutional (2). All of these factors could lead to depression and anxiety in students. The literature reports that anxiety and depression are more prevalent in university settings than in the general population, are responsible for high burdens of disability in terms of years of life lost and also have a higher incidence of fatal outcomes via suicide. The affectation of mental health compromises attention, concentration and decision-making skills, leading to poor academic performance and abandonment of training programs, reducing the possibilities of personal and professional growth amongst already socially and economically vulnerable youth (2).

Mental and behavioral disorders are signs and symptoms that constitute disease based on the criteria set forth in the WHO's International Classification of Diseases in its tenth version (ICD-10) and in the Diagnostic and Statistical Manual of mental disorders (DSM-V) of the American Psychiatric Association. These signs and symptoms may include thoughts, emotions, perceptions, behaviors and ways of establishing social relationships that occur over time with greater or lesser intensity and that affect the functionality of the individual, their performance at work, study, their activities of daily living and their relationship with other people (3).

Diagnosing mental health disorders requires a specialized assessment by a psychiatrist. Given the need for screening mechanisms for these disorders, multiple instruments have been developed over the years and have been validated in different countries both in the context of primary care and in the field of research. These tools can be applied by health personnel not specialized in psychiatry, allowing screening for mental health problems. Early detection of mental health disorders can help prevent one of the risks most associated with these symptoms – suicide - which, as with suicidal ideation, can be kept silent or manifested through verbal or written threats(4). It has been reported in the literature that anxiety and depression are more prevalent in university settings than in the general population, with anxiety and depression leading to high burdens of disability for society in terms of years of life lost (2).

Taking into account the fact that anxiety and depression affect young students across the mental health spectrum, it is important to know the magnitude of the problem and the tools available to identify these conditions. The objective of this review was to identify the prevalence of anxiety and depression in university students, the associated factors and their relationship with academic performance, as reported in the literature from 2000-2017. Additionally, the instruments used for the measurement of anxiety and depression were reported.

## Methods

A narrative review of the literature was carried out following the recommendations of the PRISMA guideline with an extension for narrative reviews (5,6). A search strategy was carried out via the regional portal of the VHL virtual health library (Lilacs and Ibecs), Medline and the Science Direct portal using the DeCS terms "prevalence, "anxiety", "depression", "university students", "epidemiological surveys", "mental health" and "mental disorders". The search strategy is found in Annex 1. Filters were applied to select only review articles or research articles written in English and Spanish.

As selection criteria, literature review studies and primary research were included, from January 2000 to December 2017, in English and Spanish and carried out in, or focused on, the university population. Qualitative studies and studies lacking complete data were excluded. These criteria were applied first to the title and abstract and then to the full text. The final articles selected were analyzed according to the objectives of the review as well as the qualitative synthesis.

## Results

The bibliographic search strategy was carried out between January and June 2018. A total of 116 articles were found, of which 27 articles were selected for the final qualitative analysis, having met the inclusion and exclusion criteria. The refinement of the search can be seen in Figure 1. The synthesis of the findings is presented in the following paragraphs in four large sections: 1. Prevalence of anxiety and depression in university students; 2. Relationship between the presence of anxiety problems or depression in university students and academic performance; 3. Factors associated with anxiety and depression problems in university students; and 4. Measurement tools or instruments.

**Prevalence of anxiety and depression in university students**

In Europe, the Universidad Católica San Antonio de Murcia presented a study for Spain, which identified anxiety disorders in 47.1% and depression in 55.6% of the students with a sample of 700 students (7). A study from the Complutense University of Madrid, with a sample of 106 students from the first year of Social Education and the last year of the undergraduate Pedagogy course, reported a prevalence of state anxiety of 13.2% and 16.0% for trait anxiety (8). This study found statistically significant differences in the prevalence of anxiety according to gender, with anxiety being higher in women and also in students of the social education program (8). The University of Nice in France conducted a study of
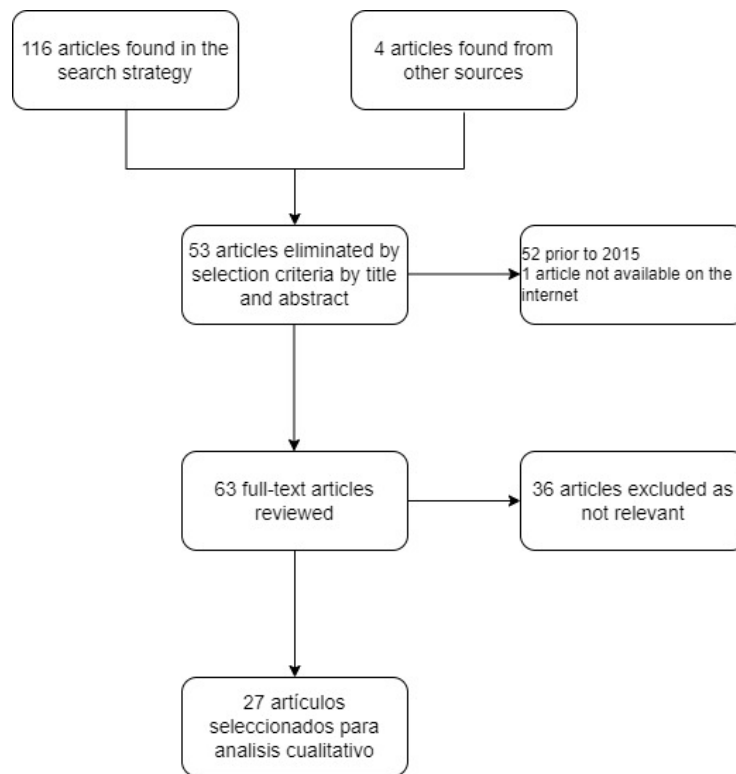
**Figure 1.** Flow chart of the article analysis process.

4,184 undergraduate students, reporting a prevalence of anxiety of 12.6% and depression of 7.6% (9). For these three European studies, the common associated risk factors were female gender, living away from family home, family difficulties and extra academic load.

For Latin America, studies have been carried out in Chile, Mexico, Peru, Colombia and Ecuador. In Mexico, a study of 506 psychology students from two universities in Monterrey found 37.5% had symptoms of anxiety, 24.7% had symptoms of depression and 25.5% had psychosomatic symptoms of medium or high intensity (10). Another study, carried out within a faculty of the National Autonomous University of Mexico, detected a prevalence of anxiety symptoms of 37.0% and symptoms of depression in 50.6% in female students and a 48.3% and 44.8% prevalence of anxiety and depression, respectively, in male students (11).

In Peru, at the Professional Academic School of Medical Technology, a cross-sectional study was carried out that found a 38.7% prevalence of depressive symptoms in students of technological training (12). For a sample of medical students at the Universidad Peruana Cayetano Heredia, the prevalence of anxiety symptoms was 34.1%, of symptoms of depression was 29.9% and the prevalence of joint symptoms was 20.6% (13). When these problems were evaluated at the same university, with a psychiatric diagnostic orientation, a prevalence of 45.6% was reported for all mental disorders, with 31.6% of students being diagnosed with depression and 22.4% being diagnosed with anxiety (14).

At the Universidad San Sebastián de Concepción in Chile, the mental health problems presented by university students entering the first year were analyzed. In a sample of 554 students, it was found that 38.8% presented manifestations of anxiety disorder and 16.5% manifestations of depressive disorders (15). In 28.5% of students, there was problematic alcohol consumption. In relation to the factors associated with these problems, statistically significant associations were established with the female sex for the two disorders. Regarding the problematic consumption of alcohol, there was a greater association in men (at 59.1%) than in women (at 19.7%).

The researchers compared the association between mental health problems and type of education (having graduated from a municipal, private subsidized or a private paid establishment) and factors related to the socioeconomic level of the families. An association was found between anxious symptomatology and having graduated from subsidized and municipal schools (p < 0.05). Students from paid private schools presented lower levels of anxious symptomatology, which suggests a greater association of anxiety problems with low socioeconomic levels. For problematic alcohol consumption, there was also a statistically significant association (p <0.05), but with students who graduated from private schools (15).

In another study carried out on 106 first-year medical students from a university in northern Chile, the degree of relationship

between the branches of self-perceived emotional intelligence and depressive and anxious symptoms was explored. Correlations were found between these factors. There were inverse correlations between clarity (the ability to understand emotional states) and repair branches with anxious depressive symptoms, and direct correlations between the attention branch (the ability to perceive one's own emotional states) and depressive symptoms (16).

In Colombia, a public university in the city of Cartagena conducted a cross-sectional study of university students in order to estimate the association between depressive and anxious symptoms and sociodemographic, academic, behavioral and family factors. 973 young people participated, with a prevalence of 76.2% for anxious symptoms and 74.4% for depressive symptoms. The associated factors were economic difficulties with an OR for anxiety of 1.6 (95% CI: 1.2-2.2) and an OR for depression of 1.4 (CI 95%: 1.05-1.9), followed by family dysfunction, alcohol consumption and a family history of anxiety and depression (17).

At the Valle University, the prevalence of psychopathology and its relationship with associated factors was measured in students of the health faculty. 71.4% of students were found to have one or more clinical diagnoses: depression in 38% and anxiety in 57%. Regarding social adaptation, 52.4% qualified as very good, 23.8% good, 23% regular with none qualifying as "poor" or "very poor" for social adaptation. A statistically significant association was found between the presence of depression and a lower degree of social adaptation, but no association between anxiety and social adaptation. A statistically significant association was also found between anxiety and a history of child abuse. There was no association between the disorders and variables such as age, gender, the intensity of the family relationship, satisfaction with the chosen academic program or association between the degree of social adaptation and academic performance (18).

In the city of Medellin, the prevalence of anxiety in students from the Universidad Cooperativa de Colombia and its association with sociodemographic and academic aspects was studied. 200 students from the faculties of medicine and engineering presented a prevalence of 58% for anxiety which was statistically lower in middle-class students. There were no significant differences with gender, age, training cycle, academic program, age or academic credits enrolled (19).

In the city of Santa Marta, a cross-sectional study was conducted on 1,349 university students from different academic programs to estimate the association between religiosity and anxious and depressive symptoms. Anxiety symptoms were found in 34% and 9.6% of the sample had symptoms of depression. No statistically significant association was found between the presence of anxious symptoms, depressive symptoms and religiosity (20).

At the Universidad Pontificia Bolivariana in Bucaramanga, a study was conducted to establish the relationship between early maladaptive schemas and characteristics of anxiety and depression in university students, through identifying the cognitive profile. The evaluation was carried out on 259 psychology students from the first to the seventh semester. The results did not indicate the presence of differential early maladaptive schemas based on the presence of State/Trait depression or State/Trait anxiety (21).

Finally, a study was carried out by the WHO (22), within the framework of mental health surveys and the international university student project. The aim of this study was to determine the prevalence and distribution of mental disorders in this population group. An electronic survey was sent to 14,371 first-year university students from 19 higher education institutions in eight countries which established a lifetime prevalence of 35% and past 12-month prevalence of 31% for at least one of the six mental disorders evaluated. Major depressive disorder was the most common of all, which reached a lifetime prevalence of 21.2% and a 12-month prevalence of 18.5%. Generalized anxiety disorder was the next most common with a lifetime prevalence of 18.6% and a twelve-month prevalence of 16.7% (22).

Table 1 shown a summary of the included studies of depression and anxiety in university students.

**Depression, anxiety and academic performance in university students**

In Belgium, about 70% of young high school graduates go on to start a university education, but only 39% are academically successful; 28% of high school graduates who enroll in university never get a university diploma. Identified reasons for dropping out of school include low socioeconomic status, male gender, lack of social resources and the presence of mental disorders, with data suggesting that mental health problems are directly related to poor academic performance, which in turn is associated with short-term desertion and long-term loss of human capital for society (23).

The Global Assessment of Individual Needs Short Screeners (GAIN-SS), a validated screening instrument for mental problems in adult and adolescent populations, was applied to 4,921 first-year students at the KU University of Leuven in Belgium, in order to investigate the prevalence of the past 12 months of mental health problems in college freshmen and the extent to which these problems were associated with poor objective academic performance at the end of the same academic term.

The results showed that mental health problems were estimated to be present in 35% of first-year university students, classifying them into four large groups as follows: hospitalization problems (including depression, anxiety, sleep problems, post-traumatic stress and suicidal ideation) with a prevalence of 24%; externalizing problems (attention deficit disorder, hyperactivity, impulsivity and behavioral disorders) with a prevalence of 18%; problems with substance use (problematic use, substance abuse and dependence) with a prevalence of 5.4%; and problems related to crime and violence (interpersonal, property and drug-related crimes) with a prevalence of 0.1%.

Statistical analysis showed an association between mental health problems and academic performance, with students with mental health problems having an average decrease of 2.9% and 4.7%, respectively, in the final grade for the academic year, compared to those who do not have mental health problems. This means that a student who usually ranks at an academic level in the 50th percentile will drop to the 38th and 35th percentiles in the

**Tabla 1.** Comparative summary of the studies in relation to the prevalence of anxiety and depression in university students.

| Study | Year | Faculty | Prevalence | | Instrument |
| | | | Anxiety (%) | Depression (%) | |
|---|---|---|---|---|---|
| Universidad Católica San Antonio de Murcia, España (7) | 2004-2005 | All official degrees excluding postgraduate degrees | 47.1 | 55.6 | Goldberg scale |
| Universidad de Monterrey Nuevo León México (10)* | 2005 | Faculty of Psychology, every semester | 37.5 | 24.7 | Beck inventory for depression. Social scale for anxiety in adolescents |
| Universidad de Niza en Francia (9) | 2012-2013 | Different careers and faculties | 12.6 | 7.6 | Specialized interview with DSM-IV criteria |
| Universidad Complutense de Madrid (8) | 2012-2013 | First year of social education and last year of degree in pedagogy. | 16.0 | ------- | STAI questionnaire |
| Universidad Nacional Autónoma de México (11) | 1987 | First and third semester of the evening shift of an undescribed faculty | 37.0-51.8 | 33.7-50.6 | GHQ - Goldberg |
| Escuela Académico Profesional de la UNMSM/ Perú (12) | 2011 | Medical Technology of the Faculty of Human Medicine | ------- | 38.7 | Beck Depression Inventory |
| Universidad Peruana Cayetano Heredia (13)+ | 2010 | Faculty of Human Medicine: first, third, fifth- and seventh-year students | 34.1 | 29.9 | Goldberg Scale for Anxiety and Depression |
| Universidad Peruana Cayetano Heredia (14)≠ | 2000 | Faculty of Medicine: fourth, fifth, sixth year students | 22.4 | 31.6 | MINI |
| Universidad San Sebastián de Concepción en Chile (15) | 2009 | 30 courses of 33 Undergraduate programs in the first year of study | 38.8 | 16.5 | Beck Anxiety and Depression Inventory |
| Universidad del Valle/ Colombia (18) | 2001 | Faculty of Health: fifth semester of an academic program left anonymous | 57.0% | 38.0 | Zung scale plus specialized interview |
| Universidad Cooperativa de Colombia / Medellín (19) | 2015 | Students from five engineering programs and one medicine program | 58.0 | ------- | Zung scale |
| Universidad pública de la ciudad de Cartagena (17)** | 2014 | No academic program specified. | 76.2 | 74.4 | Goldberg Questionnaire for Anxiety and Depression |
| Universidad de Santa Marta / Colombia (20) | 2013 | Different academic programs from second to tenth semester | 34.0 | 9.6 | Zung Scale |
| OMS proyecto internacional del estudiante universitario (22) | 2017 | Different academic programs in the first semester | 18.6 | 21.2 | CIDI |

*Sample for convenience.

+ Population: 800 students.

≠ Fixed point prevalence.

** Population: 8,740 students.

presence of internalizing or externalizing mental health problems, respectively (23).

At the San Buenaventura University in the city of Medellin, Colombia, an investigation was carried out with the objective of establishing the frequency of neuropsychiatric disorders in students with low academic performance from different courses and faculties, through the application of a structured neuropsychiatric interview (MINIplus). The results showed that 38.5% of the students with poor academic performance had a neuropsychiatric disorder with major depression being the most frequent disorder (10.3%), followed by the risk of suicide (10%). This study showed that university students who have poor academic performance may have previously undiagnosed mental health disorders (24).

Finally, a study carried out in Germany showed a statistically significant association between the existence of suicidal ideation (and behaviors) and academic performance in university students. In a sample of 4,921 students, the existence of these mental health problems is associated with a decrease of 3.6% in the final academic year performance grade and a 7.9% decrease in the final grade, for suicide attempt (25).

At this same university, it has been reported (26) that 5.5% of students had a suicidal ideation at the beginning of the course which was associated with a 3.6% decrease in the average grade at the end of the academic year compared to those without these problems. 1.4% of students had attempted suicide which was significantly associated with a 7.9% decrease in the average grade at the end of the academic year for those who had attempted suicide.

In the 2015 National Mental Health Survey, it was reported that among adolescents who dropped out of their academic studies, the twelve-month prevalence for depression was 12.1%, while among adolescents who remained in school, it was 6%. Similarly, the prevalence of suicidal ideation was 6.5% in adolescents who dropped out of school and 4.2% among those who remained in school (27).

**Factors associated with anxiety and depression in university students**

In the literature review carried out, the variables age, gender, gender identity, sexual orientation and having children were identified as risk factors (with an OR greater than 1 and a 95% confidence interval) for anxiety and depressive problems or disorders. Socioeconomic status, people with whom they live, education of the mother, education of the father, work activity simultaneous to the academic training process, monthly income of the student, academic program, history of academic failures in high school, personal psychiatric history, family psychiatric history, lack of physical activity, poor sleep quality, the occurrence of stressful life events for risk of psychosomatic illness, academic stress, risk of consumption of psychoactive substances, risk of alcohol consumption, and family dysfunction were also found to be risk factors. Protective factors (with an OR less than 1 with a 95% confidence interval) included performing regular physical activity, belonging to a group and having a good quality of sleep.

## Discussion

All the studies included in this narrative review were carried out on university students between the years 2000 and 2017, with the exception of one which was carried out in 1987. 25% of the studies included had an analytical approach. 33% were performed in Colombia, 25% in Peru, 17% in Mexico, 17% in Spain and 8% in Chile. 42% were carried out on students from health faculties (within these, 60% were carried out in the medicine program, 20% in psychology and 20% in other academic areas) and 58% of the studies were carried out with students studying academic programs from other faculties. 50% of the Colombian studies were in public universities (Valle University and the Public University of Cartagena) and 75% were performed in faculties other than health.

There is a high variability in the prevalence of anxiety and depression found between the different studies analyzed, which may be related to the differences in the measurements, the time frames, the populations represented, the countries where the studies were carried out, the university, the academic programs, the current semester, and/or the instruments or measurement tools used (22). Although all the articles used well established measurement instruments or tools, it is important to recognize that there are psychometric differences between them and that not all of them have been validated for university students. In general, also, the studies did not describe the criteria used to choose the instrument used (28).

The prevalence for anxiety and depression reported in the studies of this review coincide with the study carried out by the WHO in 2017 within the framework of mental health surveys (the international university student project) whose objective was to determine the prevalence and distribution of mental disorders in this group. This project established a lifetime prevalence of 35% and a 12-month prevalence of 31% for at least one of the six mental disorders evaluated with major depressive disorder being the most common of all. This reached a lifetime prevalence of 21.2% and a 12-month prevalence of 18.5%, followed by generalized anxiety disorder with a lifetime prevalence of 18.6% and a 12-month prevalence of 16.7% (22).

The lowest prevalence for anxiety (at 12.6%) and for depression (at 7.6%) were reported in a study carried out at the University of Nice in France in 2013 by (Tran et al., 2012-2013)(9). The highest prevalence for anxiety (76.2%) and for depression (74.4%) were reported in the study carried out at a public university in the city of Cartagena in Colombia (17) which found an association between economic difficulties and the appearance of anxiety (with an OR of 1.6 (95% CI: 1.2-2.2)) and for depression (with an OR of 1.4 (95% CI: 11.1-1.9)) (8). These findings are supported by those reported at the San Sebastián de Concepción University in Chile (15).

Among the national mental health surveys in Colombia, which were carried out between 1993 and 2015, there is a tendency to increasing anxiety in adulthood (19.3%). The 2015 survey shows, however, a significant decrease (3.9%). The incidence of depression has been decreasing (from 25.1% to 13.9% in 1993 to 2014), with a significant decrease in the last survey (5.4%). The factors that

explain the decrease in the results of the last national survey are unclear because the instrument used is the same.

In Colombia, the results from the national mental health surveys and the studies within the university population differ, probably because the ages of the university students are between 16 and 30 years, and the national mental health surveys use a broader age range (18 to 65 years for adults, 12 to 17 years for adolescents) without considering stratified results for students and non-students in these groups (28).

## Conclusions

This review of the literature has found that in university students, the prevalence of anxiety ranges between 16% and 76%, and, for depression, ranges between 9.6% and 74.4%. The prevalence of anxiety in Europe was between 12.6-47.1%, in Latin America between 22.4-38.8% and in Colombia between 34.0-76.2%. The prevalence of depression in Europe was between 7.6-55.6%, in Latin America between 16.5-38.7% and in Colombia between 9.6-74.4%.

The prevalence of anxiety in Colombian university students, which ranged from 34% to 76.2%, is higher than those reported by national mental health surveys for the general population, which was reported as 9.6% to 19.3% between 1993 and 2003, to 3.9% in the 2015 study.

Regarding risk factors associated with anxiety or depression (OR greater than 1 with a 95% confidence interval), the studies reviewed reported statistically significant associations with gender (female), long daily commutes to access the university, living outside the family home, having other extra-academic obligations such as working, caring for children or parents, having economic difficulties, belonging to low socioeconomic levels, having a sexual orientation other than heterosexual, alcohol consumption, moderate and severe family dysfunction, and having witnessed at least one traumatic event, being separated, widowed or divorced, being single and having a family history of anxiety and depression. Protective factors (with an OR less than 1 and a 95% confidence interval) were identified as performing regular physical activity, belonging to a group and having a good quality of sleep.

Anxiety and depression in university students should be studied within different university entities to establish the magnitude of the problem and to accurately identify the risk factors for this. This is important because a lack of diagnosis and timely treatment have implications for the personal, family, and social functionality of the young student, exposing them to the risk of future disability and the risk of having lethal outcomes as a result of suicidal behaviors (23).

The results found in this bibliographical review highlight the importance of carrying out studies in universities and educational institutions where higher education is imparted to establish the magnitude of the problem and to know the factors associated with anxiety and depression in these specific populations.

Based on the results of these studies, intervention programs should be designed and implemented beyond the traditional university wellness activities which, when accompanied by follow-up studies to evaluate the effectiveness of said interventions, could impact academic dropout. This would favor the progress of students who, by becoming professionals, could help to transform the economic and social realities of their families, their wider communities and society.

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**Annex 1**

**BVS**
1. tw:(Prevalence)
2. tw:(Anxiety)
3. tw:(Depression)
4. tw:(University tudents)
5. 1 AND 2 AND 3 AND 4

**Science Direct**
1. Epidemiólogy survey
2. Mental health
3. Mentals disorders
4. 1 AND 2 AND 3