

Academic Stress in University Students: A Systematic Review from 2020 to 2021

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Abstract

The main purpose of this study is to carry out a systematic review of the different studies conducted on academic stress in university students between 2020 and 2021. To this end, a review was conducted in the important scientific databases such as Scopus and EBSCO, in order to find the foundations raised and the theories given by various authors on the topic mentioned. For this purpose, some selection criteria were applied by means of a rigorous process based on a search process flow, where 13 articles that met the mentioned criteria were selected. Among the most important conclusions, there are factors that affect the mental health of students and are related to the excess of academic load, concerns with physical appearance, economic and family problems, among other aspects.

Key words: Stress, mental health, university students.

Resumen

El presente estudio tiene la principal finalidad de realizar una revisión sistemática de los diferentes trabajos realizados en torno al estrés académico en estudiantes universitarios, entre los años 2020 al 2021. Para tal fin se realizó una revisión en las importantes bases de datos científicas como *Scopus* y *EBSCO*; con el fin de encontrar las fundamentaciones planteadas y las teorías dadas por diversos autores sobre el tema mencionado. Para ello, se aplicaron algunos criterios de selección mediante un proceso riguroso en base a un flujo de proceso de búsqueda, en donde se pueden elegir 13 artículos que cumplieran con los criterios mencionados. Entre las más importantes conclusiones se tiene que existen factores que afectan la salud mental de los estudiantes y se relacionan con el exceso de carga académica, preocupaciones con la apariencia física, problemas económicos y familiares, entre otros aspectos.

Palabras claves: Estrés, salud mental, estudiantes universitarios.

INTRODUCTION

Stress is a problem in which the individual presents "(...) a certain tendency to react to stressful events with symptoms such as tension, irritability and persistent arousal, with a low threshold for being disturbed or frustrated" Lovibond & Lovibond (cited by Antúnez & Vinet, 2012, p. 50). In this sense, academic stress represents all those cognitive and affective processes that affect students in their tasks in the academic context, the same that occurs when academic stress is defined as those

cognitive and affective processes that affect students in their tasks in the academic context, i.e., academic stress represents a systemic and adaptive process that occurs when the student detects a series of demands that are perceived as stressors, which produces a systemic imbalance that manifests itself through various stressors, represents a systemic and adaptive process that occurs when the student detects a series of demands that are perceived as stressors, which produces a systemic imbalance that manifests itself through various symptoms and that will require facing these stressful academic situations to regain balance, called stress coping (Valdivieso-León et al., 2020).

These situations implicit in the educational process are not controlled by the student and can cause cardiovascular, musculoskeletal, reproductive, sleep disorders and / or behavioral diseases, to the extent that the demands of their environment are perceived negatively (stress), that is, the student is distressed by those situations they face during their training process and loses control to operate them, sometimes manifesting physical symptoms such as: anxiety, tiredness, insomnia, and academic expressions such as poor school performance, professional disinterest, absenteeism and even dropout. If such demands were perceived positively (eustress), the student would be motivated to perform academic work, and would influence their emotions in a positive way.

The problem of stress has been affected in recent times by the major problem related to the SARS-CoV-2

(Severe acute respiratory syndrome coronavirus) or COVID-19 coronavirus disease, which began in December 201, and was classified by the WHO as a global emergency pandemic level, due to the increase in confirmed cases and deaths caused by the virus. Among the most important measures taken and not foreseen are social confinement and non-attendance classes, which have led to problems among students.

Therefore, based on the above concepts, a systematic review of the work done to date on academic stress among university students will be carried out, thus answering the following research question: What is the level of stress in university students between 2020 and 2021? Therefore, with the aim of approaching the reality in the school context, the aforementioned systematic review of previous works will be carried out, with the objective of knowing the level of stress in university students between 2020 and 2021.

METHODOLOGY

This study corresponds to a systematic review of scientific articles elaborated from 2020 to date, with the purpose of knowing the level of stress in university students between 2020 and 2021. Therefore, the problem is: What is the level of stress in university students between 2020 and 2021? For which a strict selection process of articles was carried out, taking into

account criteria of inclusion and exclusion of articles, by means of the PRISMA statement (Preferred Reporting Items for Systematic reviews and Meta-Analyses).

Vera (2009) mentions that the purpose of systematic reviews is to examine the published literature and place it in a certain perspective, where the information found by means of a search is summarized and analyzed by means of rigorous procedures; therefore, the systematic review is the main product of a systematic review.

As can be seen in Figure 1, referring to the PRISMA model unit of analysis selection flow (Coronel et al., 2020), the information was collected using the main scientific databases such as Scopus and EBSCO; using key terms or words such as: stress in college students, stress, stress in college students, stress. This search was carried out taking into consideration mainly papers written in English and Spanish. The articles were selected if they contained information related to the above-mentioned constructs, in periods between 2020 to date, and if they had qualitative, quantitative and/or mixed approaches.

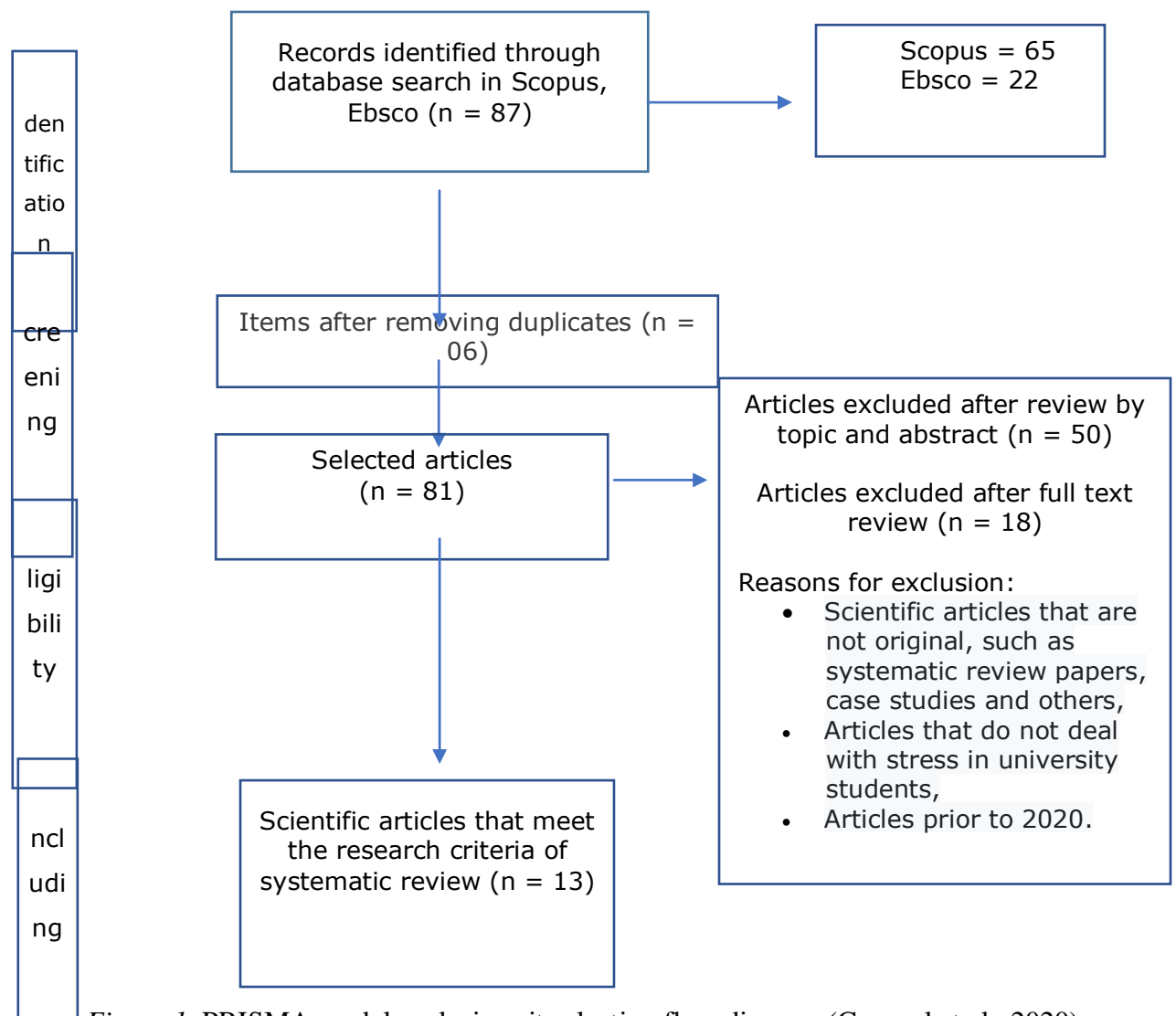


Figure 1. PRISMA model analysis unit selection flow diagram (Coronel et al., 2020).

A total of 87 scientific articles were identified in databases such as EBSCO and Scopus. After going through the selection process according to the detailed inclusion and exclusion criteria, as well as those duplicated works, these were reduced to seven (13) and which refer strictly to stress in university students.

The coding process of the selected data was carried out, transferring these in a matrix regarding the name of the article, its

reference, year of publication, country of the study, objective of the research, population and sample studied, instrument applied, the result of the study and the contribution achieved.

RESULTS

After filtering according to the inclusion and exclusion criteria, the results of this search yielded 13 articles related to stress in university students, which can be found

in the Ebsco and Scopus databases (see Table 1):

Table 1

List of selected articles, according to database (author, country, year and title of the revised publication)

N°	Author	Country	Year	Title
1	(Valdivieso-León, Lucas, Tous-Pallarés, & Espinoza-Díaz; Ivette, 2020)	España	2020	Estrategias de afrontamiento del estrés académico universitario: educación infantil - primaria
2	(Carratalá et al., 2021)	España	2021	Analysis of stress and academic-sports commitment through Self-organizing Artificial Neural Networks
3	(Aldana et al., 2020)	Venezuela	2020	Estrés Académico y Trabajo de Grado en Licenciatura en Educación
4	(Berrio-Quispe et al., 2021)	Perú	2021	Uso de plataformas educativas y Estrés académico estudiantil durante el COVID-19.
5	(Castillo-Navarrete et al., 2020)	Chile	2020	Psychometric properties of Sisco-II inventory of academic stress
6	(Medina et al., 2021)	México	2021	Fear, Stress, and Knowledge regarding COVID-19 in Nursing Students and Recent Graduates in Mexico
7	(Quiliano & Quiliano, 2020)	Perú	2020	Emotional intelligence and academic stress in nursing students
8	(Xavier et al., 2021)	Brasil	2021	Perceived stress and musculoskeletal pain among undergraduate health students
	(Durán-Galdo & Durán-Galdo, 2021)	Perú	2021	Eating habits, physical activity and its

9	Mamani-Urrutia, 2021)			association with academic stress in first year health science university students
10	(Cabezas-Heredia et al., 2021)	Ecuador	2021	Depresión, Ansiedad, estrés en estudiantes y docentes: Análisis a partir del Covid 19
11	(Argudo, 2021)	Ecuador	2021	Expressive writing to relieve academic stress at university level
12	(Chiodelli et al., 2020)	Brasil	2020	Effects of a Brief Mindfulness-Based Intervention on Depression, Anxiety, and Stress in Senior Students
13	(Muvdi et al., 2021)	Colombia	2021	Estrés percibido en estudiantes de enfermería durante el confinamiento obligatorio por Covid-19

According to Table 1, the papers reviewed are from Peru with three articles (Durán-Galdo & Mamani-Urrutia, 2021; Quiliano & Quiliano, 2020 and Berrio-Quispe et al., 2021); Ecuador (Cabezas-Heredia et al., 2021 and Argudo, 2021), Spain (Valdivieso-León, Lucas, Tous-Pallarés, & Espinoza-Díaz; Ivette, 2020 and Carratalá et al., 2021), and Brazil (Chiodelli et al., 2020 and Xavier et al., 2021) with two articles; Venezuela (Aldana et al., 2020), Chile (Castillo-Navarrete et al., 2020), Mexico (Medina et al., 2021) and Colombia (Muvdi et al., 2021) with one article respectively. Approximately 38% correspond to the year 2020 and 62% to the year 2021 (Figure 2).

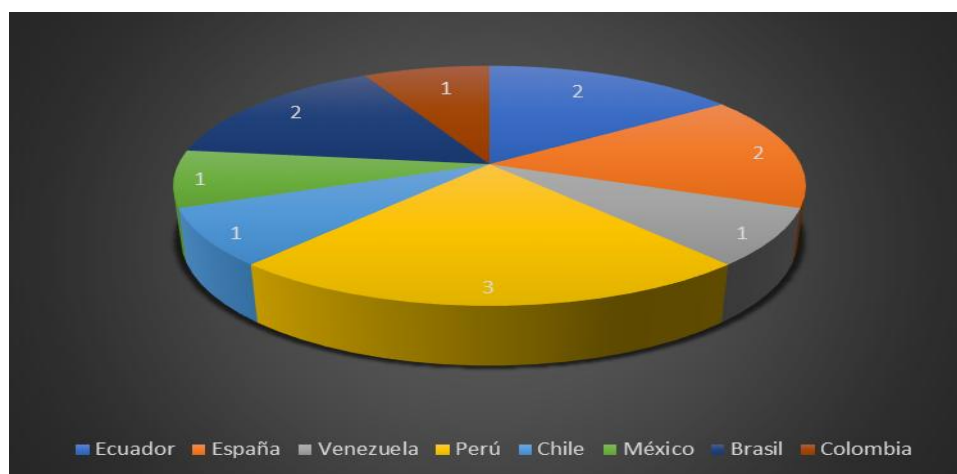


Figure 2. Selected items by origin or provenance.

As for the instruments used to measure the level of stress in university students, there is the Spanish adaptation of the Coping Strategies Inventory (CSI) (Valdivieso-León, Lucas, Tous-Pallarés, & Espinoza-Díaz, 2020), a questionnaire to determine whether they present stress symptoms or how many times they have needed to visit health centers or private doctors due to stress (Argudo, 2021, Berrio-Quispe et al, 2021 and Aldana et al., 2020), the Perception Scale (EEP / PSS) (Carratalá et al., 2021), the SISCO

Inventory of Academic Stress (Durán-Galdo & Mamani-Urrutia, 2021, Quiliano & Quiliano, 2020 and Castillo-Navarrete et al., 2020), the COVID Stress Scale instrument (Medina et al., 2021), the Brazilian version of the Standardized Nordic Questionnaire and the Perceived Stress Scale (Xavier et al., 2021), the DASS 21 Survey to measure anxiety, stress and depression scales (Cabezas-Heredia et al., 2021 and Chiodelli et al., 2020), and the Perceived Stress Scale 10 (Muvdi et al., 2021)

In relation to the study population and sample, Table 2 shows the following information:

Table 2

List of articles reviewed according to population and sample

Nº	Author	Title	Population and sample
1	(Valdivieso-León, Lucas, Tous-Pallarés, & Espinoza-Díaz; Ivette, 2020)	Estrategias de afrontamiento del estrés académico universitario: educación infantil - primaria	The sample consisted of 276 students from the Early Childhood Education (58.1%) and Primary Education (41.9%) degrees at the University of Valladolid, aged between 17 and 32 years, with a mean age of M=20.8 and a standard deviation of SD=3.33
2	(Carratalá et al., 2021)	Analysis of stress and academic-sports commitment through Self-organizing Artificial Neural Networks	Sample comprised 190 males between 13 and 17 years of age, athletes and students of Compulsory Secondary Education (ESO), High School and Intermediate Vocational Training.
3	(Aldana et al.,	Estrés Académico y Trabajo	Study sample of 167 students.

	2020)	de Grado en Licenciatura en Educación	
4	(Berrio-Quispe et al., 2021)	Uso de plataformas educativas y Estrés académico estudiantil durante el COVID-19.	Sample of 160 students from a private university (Lima, Peru).
5	(Castillo-Navarrete et al., 2020)	Psychometric properties of Sisco-II inventory of academic stress	Sample of 1,126 undergraduate students from three Chilean universities.
6	(Medina et al., 2021)	Fear, Stress, and Knowledge regarding COVID-19 in Nursing Students and Recent Graduates in Mexico	Sample of 912 nursing students and graduates in the last 18 months from public and private universities in Mexico.
7	(Quiliano & Quiliano, 2020)	Emotional intelligence and academic stress in nursing students	Non-probabilistic sample composed of 30 nursing students enrolled in the VII semester.
8	(Xavier et al., 2021)	Perceived stress and musculoskeletal pain among undergraduate health students	Sample of 792 undergraduate students in the health area (Nursing, Pharmacy, Physiotherapy, Speech Therapy, Medicine, Occupational Therapy and Dentistry) at a public university in southern Brazil.
9	(Durán-Galdo & Mamani-Urrutia, 2021)	Eating habits, physical activity and its association with academic stress in first year health science university students	Sample of 180 students who attended the first and second cycle of the careers of Nutrition and Dietetics, Stomatology and Psychology at the Universidad Científica del Sur de Lima-Peru.
10	(Cabezas-Heredia et al., 2021)	Depresión, Ansiedad, estrés en estudiantes y docentes: Análisis a partir del Covid 19	Sample of 139 students and teachers of the master's degree in occupational risk prevention
11	(Argudo, 2021)	Expressive writing to relieve academic stress at university level	Sample of 157 undergraduate students at an Ecuadorian university.
12	(Chiodelli et	Effects of a Brief	Sample of 34 university

	al., 2020)	Mindfulness-Based Intervention on Depression, Anxiety, and Stress in Senior Students	students in their final years of study.
13	(Muvdi et al., 2021)	Estrés percibido en estudiantes de enfermería durante el confinamiento obligatorio por Covid-19	Sample of 398 nursing students from a university on the Colombian Caribbean coast.

DISCUSSION

In relation to the concepts of stress in university students in the articles chosen, it has been taken into account that this mental health problem is defined as those cognitive and affective processes that affect students in their tasks in the academic context that occurs when the student detects a series of demands that are perceived as stressors which causes a systemic imbalance that manifests itself through various symptoms that require the student to have to face these stressful academic situations to regain balance again (Valdivieso-León et al., 2020), and can cause cardiovascular, musculoskeletal and reproductive diseases, sleep and/or behavioral disorders, as well as physical symptoms such as anxiety, fatigue, insomnia, and academic expressions such as poor school performance, professional disinterest, absenteeism and even dropout (Zárate et al., 2017).

Students often experience times that make them vulnerable to stress; therefore, they must deal with pressure to succeed in both their personal and academic lives; they are also affected by various social,

emotional, family and social factors (Argudo, 2021). Aldana et al. (2020) mentions that stress is a physiological, emotional, cognitive and behavioral activation reaction to academic stimuli and events.

Aldana et al. (2020) mentions that stress is a neuroendocrine, immunological and behavioral response of the organism to any demand imposed on it, which, in turn, arises as a result of an interpretation of threat or danger, thus allowing the adaptation and survival of a living being. In the same sense, Xavier et al. (2021) considers that it is a manifestation that occurs when an event goes beyond the physiological or psychological adaptation sources of individuals, either in the cognitive, emotional or behavioral aspects, exposing them to situations of risk of deterioration in their health.

As for the factors that affect the student's state of well-being, called stressors, they are: the academic load, the pace and the poor organization of academic activities (Valdivieso-León, Lucas, Tous-Pallarés, & Espinoza-Díaz; Ivette, 2020;

Durán-Galdo & Mamani-Urrutia, 2021) the conglomerate of tensions, worries, uncertainties, efforts to be better in class (Aldana et al., 2020); family problems, illness, body image concerns, financial problems, lack of family attention, academic demands such as exams, teacher methodology, low grades, etc (Valiente-Barroso et al., 2020; Cabezas-Heredia et al., 2021).

In these times of pandemic, the feeling of danger, the possibility of contagion, and their families can also cause stress problems (Medina et al., 2021); adaptation to a new educational experience, estrangement from family and friends, changes in daily routine (Xavier et al., 2021).

CONCLUSION

Stress in students is a very important issue to address, since it represents a negative behavior that is generally associated with other mental health problems such as depression and anxiety. It is a behavior that is characterized by those cognitive and affective processes that affect students in their tasks in the academic context; in this sense, the student detects a series of demands that are perceived as stressors, which produces a systemic imbalance that manifests itself through various symptoms and that will require facing these stressful academic situations to regain balance, called stress coping.

Such stressors that affect the student's state of well-being may be the academic load, the pace and poor

organization of academic activities, family problems, illness, concerns about body image, economic problems, lack of family attention, academic demands such as exams, teacher's methodology, low grades, among other factors. In this sense, it is important that the university institutions conduct workshops and/or lectures, in order to detect this situation that can jeopardize their personal development and academic performance.

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