

## ACADEMIC STRESS IN PANDEMIC, OF UNDERGRADUATE NURSING STUDENTS AT PUBLIC UNIVERSITY

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**Abstract:** University students experienced important changes during the COVID-19 pandemic, consequently the World Health Organization on March 11, 2020, made recommendations to educational institutions, due to the contagion and deaths that were occurring at that time, this reason to close the Schools at all levels and in the world, including the Universities, the face-to-face modality was modified to virtual, the reviewed literature indicates that this was a casual of academic stress, which motivates to carry out this study. **The general objective:** to analyze the academic stress in a pandemic of undergraduate nursing students at a Public University. **Material and methods:** Design; a descriptive investigation, a quantitative, cross-sectional approach. Population: Nursing undergraduate students who were in the second to eighth period of their training, with a total of 84 students. The validated instrument was SISCO. For the collection of information, prior information and signing of the informed consent, sent online. They were created in a database. **Results:** The female sex 87%, of the total 99% answered having presented stress; 51% their range between 20 and 21 years. The main stressors: 35% said they had little time to do their work and 34% the overload of tasks and assignments of the subjects, 27% the type of work requested by the teacher. Physical manifestations: digestive problems 33%, overeating or not doing so 40%; psychological manifestations: restlessness and nervousness 54%, excessive worry 43%, difficulty concentrating 38%, memory problems 24%. **Conclusion:** Academic stress in men and women, in all periods, has not been given importance in mental health, the consequences are observed in physical and psychological manifestations, as well as learning problems and in their family and social environment.

**Keywords:** Nursing, academic performance,

students, questionnaire, pandemic, stress, COVID-19.

## INTRODUCTION

The student population in its trajectory through university life enjoys two great human rights, one is health and the other is education, both have been affected by the presence of the pandemic. The data issued by the World Health Organization, according to the situation, was: 118,000 cases in 114 countries, and 4,291 people had died in the world by March 11, 2020, consequently urgent health measures were issued and implemented, which spread rapidly on networks, television channels, which mobilized the health and education systems, as a result of which the Educational Institutions were closed at all levels, which included the Universities, changing to the virtual modality.

During the meeting in argentina, Dr. Francesc Pedró, director of the UNESCO International Institute, stated in his message that “The pandemic has forced us to enter a world of experimentation in the worst circumstances, that is, without planning and overnight. morning”, therefore it is necessary to provide the population with international internet law, and improve the quality and equity of higher education, (UNESCO, 2020)

For the newly admitted students, it was a virtual start, without knowing their classmates, their teachers, the facilities themselves and from home this, this moment that is long awaited by the student, remained pending, (Kestel, 2020). Fear to become infected, frustration, boredom, inadequate, abundant and alarmist information, financial losses in both households and businesses, the perception of a real threat, and the stigma associated with the disease situations that were present in the entire population including students (Bao et al., 2020, & Garfin et al., 2020).

The presence of uncertainty, social distancing, work overload that students perceive, are indicative of the presence of stress, at this first moment it is defined as “a set of neuroendocrine, immunological, emotional and behavioral processes and responses to situations that mean a greater adaptation than usual for the organism, and/or are perceived by the individual as a threat” mentions Berrío García & Mazo Zea (2011) cited by (Luque Vilca, Bolivar Espinoza, Achahui Ugarte, & Gallegos Ramos, 2022), what was happening in the world population.

However, regarding academic stress in education, it is taken up by Dr. Arturo Barraza Macías, who defines it as “A systemic, adaptive and mainly psychological process that defines stressors and coping strategies” (Barraza Macías, 2006). The systemic components of stress, state that the subject is a system, which has input and output, in their case the presence of symptoms are what cause the imbalance in the system, which can cause a disorder to their mental health, a psychological state, related to the evaluation made by the subject.

In reviewed studies: 95% of the students presented stress in the State of Mexico, 41.7% medium level and 35.6% high level (Montiel Cortés, Pérez Arrieta, & Sánchez Monroy, 2020); it has been studied in different areas and disciplines, not only in Health Sciences, but in Engineering with students in the subjects of physics and mathematics (Jardey Suárez, 2019); in Education Sciences, Economic Administrative Accounting and Arts (Jurado Botina, Montero Bolaños, & Carlosama Rodríguez, 2022).

The academic stressors that occur most commonly related to situations in the university environment are: psychosomatic manifestations, changes in lifestyle, changes in sleeping style, the combination of employment with studies, financial difficulties among others, mentioned in the article managing

academic stress (Escobar Zurita, 2018).

Specifically in nursing, Calixta Roy's adaptation model conceives the person as an open system, in a holistic perspective, the student is considered as an open system, in interaction with his environment and in an exchange of information, in his model there are four modes of adaptation (Acosta Salazar, Lapeira-Panneflex, & Osorio Durán, 2021).

Physiological and physical first; in which some are found such as stress level, hours of sleep, anxiety and depression, related to mental health disorders or presence of traits; the second related to self-concept; the form as group identity, where behavioral patterns, changes in behavior, efficiency under stress, handling of difficult situations, among others, can be observed, which is consistent with the SISCO instrument.

The third is the adaptation of the function of the role, family environment, economic support; This role changes in the student according to the periods they attend, what changed with confinement, their study habits, the acquisition of materials and the use of virtual tools; the fourth, adaptation of interdependence, within the level of adaptation of the subject indicates that there are stimuli that the subject can identify under a response that may be normal adaptive, however in this event there is fear, isolation, and the social role interacts with their environment, which in this pandemic was in virtual mode and networks.

This educational and health situation was the main reason and interest for the researchers, the general objective: to analyze the academic stress in a pandemic of nursing undergraduate students at a Public University.

## **MATERIAL AND METHODS**

The design: a descriptive research, with a quantitative approach, cross-sectional because the instruments were applied only once to the

students in the scheduled period. Population: corresponds to students of the Faculty of Nursing, enrolled during the pandemic at the Public University, in the period from November 2021 to April 2022, who were in the second to eighth period of their training. The sample was obtained through convenience sampling, that is, a non-probabilistic method was used, it was integrated with 84 students of the Nursing degree.

A section with the sociodemographic data of the population and the SISCO inventory was used, which has been widely used, evaluated and applied to various higher level students, to name a few; (Audirac Melchor, Hernández Zuñiga, & Sánchez Sosa, 2021), (Sierra Herrera, Alonso Ramos, & Treviño Garza, 2020), (Terrazas, Velázquez Castro, & Testón Franco, 2022). Its main objective is to recognize the characteristics of the stress that usually accompanies upper secondary, higher and postgraduate education students during their training. It has a Cronbach's Alpha reliability index.

It is a self-administered questionnaire, the inventory is scored by adding the answers, since it is a Likert scale. This qualification is possible by dimensions and in the total of the inventory, its handling was online by google forms and by email of the students.

-A filter item, in dichotomous terms (yes-no) that makes it possible to determine whether or not the respondent is a candidate to answer the questionnaire, based on the level of stress identified and thus decide whether to continue. Seven items with six categorical values, which allow identifying the frequency of each of the aspects that are stressful for the student.

-25 items of five categorical values, which identify the frequency in which the symptoms or reactions to the stressor (physical, psychological and behavioral) occur and six items that allow us to know the coping

strategies used by the students with a Likert scale (Barraza Macias, 2008).

For information collection, it was done through the students' emails and online on google drive, they were provided with information and the informed consent was handled, which was signed prior to answering the questionnaire. Descriptive statistics were used for data analysis, which allowed analyzing the dimensions: stressors, symptoms or manifestations, and coping strategies.

## LEGAL ASPECTS

The nursing professional is governed by four duties that support the practice of the profession, which are: promote health, prevent disease, restore health and alleviate suffering. The need for nursing is universal, which is why the ICN Code of Ethics is essential for the practice of the nursing profession (International Council of Nurses, 2017).

From article 2, in the seventh title in the development of teaching and scientific and technological research for health (General Health Law, 2018).

Art. 100 establishes that scientific and ethical principles must be considered and that the informed consent of the patient must be obtained prior to information on the procedure to be carried out in the investigation (General Health Law, 2012).

In Article 13, a regulation on Health Research is generated, which provides that the person under study must be treated with respect and according to the dignity of people, protecting their rights and well-being at all times.

Article 14 section I, III, V, VII and VIII establish the criteria that must be met to exercise the intervention without transgressing this law.

## RESULTS

These will be presented in two sections,

the first the sociodemographic data and the second the questionnaire data.

### SOCIODEMOGRAPHIC DATA

In relation to sex, there is a female predominance with 87%, although men are being incorporated but the percentage of participants is minimal; a fact that is relevant, 99% answered having presented stress, which is the item that indicates that all the participants answered the questionnaire.

Period	Frecuency	Percentage
2	13	15
3	14	17
4	11	13
5	11	13
6	14	17
7	3	4
8	18	21
Total	84	100

Table 1: Frequency by period the student was studying

Source: self made.

The periods in which there is greater frequency are: eighth, sixth and third, however academic stress is present in all students according to the previous data. 55% of the population is in a range between 20 and 22 years; only 1% is married and 24% studies and works, therefore three quarters of the population are dedicated to their professional studies.

### QUESTIONNAIRE DATA

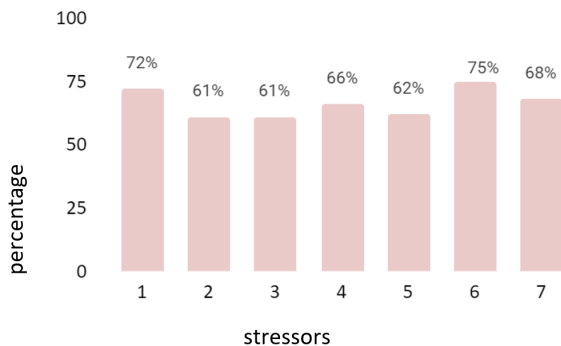
According to the population, the following scale was used for the level of stress:

- From 0 to 48% mild level of stress
  - From 49% to 60% moderate level of stress
  - From 61% to 100% high level of stress
- 62% of the students who participated

presented a high level of stress, 30% moderate and 8% mild. Regarding the stressors in the questionnaire are the following aspects:

- 1 The overload of homework and school work that I have to do every day.
- 2 The personality and character of the teachers who teach me.
- 3 The form of evaluation of my teachers.
- 4 The level of demand of my teachers.
- 5 The type of work that teachers ask me to do.
- 6 Having limited time to do the work assigned by the teachers.
- 7 The lack of clarity I have about what teachers want

The results with the highest percentage are: 35% said they had little time to do their work, 34% the overload of tasks and work of the subjects they were studying, 27% the type of work that the teacher asks of me, 25% the level of teacher's requirement.



Graph 1: academic stressors

Source: self made

Physical manifestations: 33% are digestive problems (indigestion, diarrhea or constipation); fatigue or chronic tiredness with 32%; overeating or not eating 40% which may be related to time for homework.

Psychological manifestations: restlessness and nervousness 54%, excessive worry 43%, fear, fear or panic 40%, feeling of insecurity 25%, difficulty concentrating 38%, anxiety



crisis 26%, memory problems 24%. Irritability, anger or constant fury 30%, these are in greater proportion.

Behavioral manifestations are minimal since they do not have records: withdrawal or isolation occurred in the entire population due to confinement, apathy in the way of dressing or grooming 32%.

In relation to the strategies, there was a variety of them among which are: seek information about the situation that worries me 54%; remember similar situations that occurred before and think about how I solved them 59%; try to analyze the causes that originate the situation that concerns me 51%; maintain a balanced perception of the situation that concerns me without exaggerating or minimizing its presence 54%, it could be mentioned that they are favorable strategies, related to the second mode of adaptation according to Calixta Roy.

Other strategies that were also used but in low percentages were the following: analyze the positive and negative of the solutions designed to solve the situation that worries me 38%; maintain control over my emotions so that they do not interfere when facing the situation that concerns me 29%, which allows us to observe that this control was not favorable; ask a family member or friend to help me clarify the situation that concerns me 21% ; establish a certain time to solve the situation that worries me 29%, this time being longer, due to the prevailing situation.

## CONCLUSIONS

The levels of academic stress that the student population presented was moderate to high, therefore it is necessary to make proposals to reduce these percentages in relation to the psychological manifestations that were in greater proportion.

The Educational System in Mexico is integrating socio-emotional education at

all levels, which will allow human beings to develop their own resources for their well-being and dignity, to learn to make decisions, solve problems and their encounter in the educational act is for the development of skills and resources for life.

The participation of professional staff in the mental health area and their relationship with teachers and students is important to improve the management of emotions and strengthen multidisciplinary work.

Academic stress was present in both men and women, in all periods of their training, the consequences are observed in the physical and psychological manifestations, being consistent with the modes of adaptation of the Calixta Roy model, therefore they must be implemented. strategies aimed at reducing these manifestations, integrating them in matters related to teachers.

The studies that take up the behavioral and social dimensions in the subject of academic stress are minimal according to the reviewed literature, being important due to the interaction of the different groups of peers, collaborative work, interaction with teachers and other peer groups. , allowing another opportunity for educational research.

According to the results, psychological manifestations are the ones that occur most frequently, this is consistent with the position of Dr. Arturo Barraza and his model in the educational field, therefore it is relevant that this information be disseminated so that teachers can reflect on their teaching practice.

A limitation of the study is not having information from the teacher, in relation to the management of academic stressors, which allows a deeper investigation to be able to contrast these results, an opportunity for educational research.

The strategies used had favorable results in an average proportion, therefore, from this sample there is work to be done with the

participants and with the rest of the population that is studying nursing at this University.

The presence of motivation decreases academic stress; This shows that there are clear and convincing assumptions where it is possible to establish actions to improve or manage academic stress, which is visible in some higher education institutions with the support of care centers and organizations serving the student.

Hoping that the experience that has been lived in these years, and that reminded us of the vulnerability of the human being, the importance of socialization, family and life as well as the changing roles that we play in our day to day, are the reasons that encourage us to improve our teaching work in any of the Institutions where we work and be able to implement new teaching strategies to strengthen meaningful learning in the student.

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