



SLEEP DISTURBANCES, STRESS AND ACADEMIC PERFORMANCE IN ONLINE UNIVERSITY STUDENTS.

Education

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ABSTRACT

Introduction. Sleep disturbances and stress in medical students have always been present, in this outgoing pandemic, it was something of everyone. The disturbances in academic performance can be produced by many factors, such as environmental, social, and even economic. **Objective.** To identify insomnia, stress, and academic performance related to online classes during COVID in medical students at the Universidad Del Valle de Mexico, Campus Villahermosa, Tabasco. **Methods.** An observational, transversal and prospective study was carried out on medical students from the Universidad Del Valle de Mexico, in Tabasco, in June 2021. Fourth-semester students of the bachelor's degree in medicine of the Villahermosa Campus were included through a questionnaire of 20 items, where they responded to the Perceived Stress Scale and the Athens of Insomnia. **Conclusion.** It was observed that the female gender had a higher incidence with perceived stress and insomnia, during online classes, academic performance was not affected in any gender group.

KEYWORDS

Insomnia, stress, medicine, COVID-19.

INTRODUCTION.

Stress is common nowadays, in medical students, due to the outgoing COVID-19 pandemic, a high percentage of students were subjected to the effects of anxiety and stress throughout virtual education, which generates difficulties in achieving academic skills, so considerations must be taken for their mental health. (Ciarrano et al. 2009)

On the other hand, insomnia is defined as an insufficient amount of sleep or an unsatisfactory quality of sleep, insomnia is often associated with stress and, also deteriorates the function in many areas of life, and of course for university students. (Średniawa et al. 2019)

Academic performance refers to the productivity and quality of student education, which is affected by many spheres of life. (Álvarez et al. 2022)

OBJECTIVE.

To identify insomnia, stress, and academic performance related to online classes during COVID in medical students at the Universidad Del Valle de Mexico, Campus Villahermosa, Tabasco on June 6, 2021.

METHODOLOGY.

Design of the studio.

Observational, transversal and prospective study in students of the medicine bachelor's degree from Universidad Del Valle de México, Campus Villahermosa in June 2021.

Universe and sampling.

The universe was of 63 students, in which the sample of probability was obtained for finite population by applying a confidence level of 90%, variance = 0.05, standard error 95%, selected by a systemic probabilistic sampling.

Selection criteria.

Inclusion criteria: fourth semester students in online undergraduate classes, who agreed to answer the questionnaires. Exclusion criteria: medical students who are not studying the fourth semester in online.

Data collection plan.

The data collection was carried out through a questionnaire of 30 items corresponding to the variables: stress, insomnia, academic performance, age, semesters, etc.; the questions were associated with the environment taking into account academic stress and its relationship with insomnia, and changes in academic performance with a Cronbach alpha of 0.66. For the detection of perceived stress, the Spanish version of the Perceived Stress Scale-10 was used, giving positive for scores greater than 21. (Campo et al. 2014). The Athens Insomnia Scale was implemented for the detection of insomnia, giving positive everyone who had a 8 score. (Jiménez et al. 2013), and for the academic performance study, the average of the current semester was asked.

Analysis of the information.

The data was processed through Microsoft Excel ®.

Ethical considerations.

This research was based on relating sleep disturbances, stress, and academic performance during the COVID-19 pandemic, in students of the bachelor's degree in medicine, according to the guidelines of the General Health Law in the last reform published DOF 01-06-16, in Title five "Research for Health". Just as informed consent was applied according to Helsinki's statement and the Nuremberg code.

RESULTS.



Figure 1. Sex distribution

63 fourth-semester students were interviewed, who were in online classes on June 6, 2021, of which 42 females (66.7%) and 21 males (33.3%). (Figure 1)

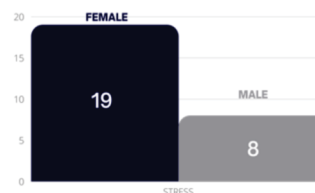


Figure 2. Positive cases of stress.

Based on the Perceived Stress Scale-10 (EEP-10), 27 cases of perceived stress were recorded during this study (42.9%), of which 8 males (29.6%), and 19 females (70.4%); while 57.1% did not show a positive score to EEP-10. (Figure 2)

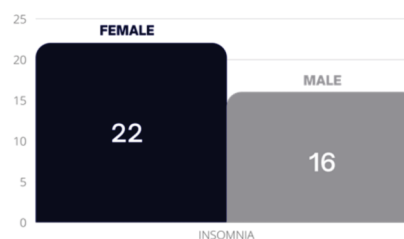


Figure 3. Positive cases of insomnia In relation to the Athens Scale, 38

positive cases of insomnia were found (60.3%), of which 16 were male (42.1%) and 22 female (57.9%), where 25 people did not achieve a positive score on this scale (39.7%). (Figure 3) Referring to academic performance, no variation was found, since a grade of 7 was taken as positive for a low academic performance, and an average of our students was obtained, where we ask for them final grade from the previous semester, giving us an average of 8.90 during online classes.

DISCUSSION

As is to be expected, the risks that come with stress, insomnia and low academic performance can be an overload of tasks, projects, workplace harassment, exams and the outgoing pandemic; likewise, Díaz et al. tells us that other factors affecting the academic performance are environmental social and family issues that also affect stress levels, such as family conflicts and economic difficulties, and those factors were very present in this pandemic. (Díaz et al. 2014)

In relation to the perceived stress, we found 27 people were positive for stress, and 19 people of the female gender. It can be attributed at a significant difference in our population size, the universe is made up of 42 female and 21 male. Therefore, this statistical difference will always be unfortunately observed, but, if we duplicate the males, we can see a normalization, where the both gender suffers stress equality. García et al., mentions that these differences are due to the fact that women admit more openly that certain situations cause them stress, generating a significant emotional and psychological impact. (García et al. 2012)

According to the recent study by Akel et al., the reason many woman are subjected to high levels of stress is by violence that their husbands, parents and even siblings, exert on them. Therefore, if women suffer more from stress it is not simply because they are more emotional than men, but because of this macho society. (Akel et al. 2022)

During the first year of a total of quarantine, many households lost track of time, and that is that being locked up all day and every day without being able to leave, it was evident that it was going to have repercussions on an emotional and social level, such as stress, anxiety, and in this case insomnia; Vilchez et al. , carried out a study with medical students from different semesters to measure sleep quality, and found that according to the PSQI, 77.7% (n=693) of the students surveyed had poor sleep hygiene. (Vilchez et al. 2016)

In our study, a total of 38 people were found who tested positive for insomnia, of which 22 were female, and 16 were male, while the rest showed no signs of insomnia, in this new case, we can attribute to the fact that the female gender is still the most predominant since our population is not in a proportion equal to this gender. Abdiel et al. , tells us that according to his research in university students he found that the prevalence of depression, anxiety and insomnia was 28.5, 29.5 and 60.1%, respectively, and those who had insomnia (RP: 8.82, CI: 4.17-18.68, p: <0.001) had a higher prevalence of depression. where it can be seen that 60.1% of their population tested positive for insomnia and that they had a prevalence of suffering from depression; and it is that, it is very little talked about at the levels of stress and pressure that medical students are subjected to by examinations and clinical practices. (Coico et al. 2022)

Academic performance had a good result in all people, since as such none of the genders failed any subject, however, Ojeda et al. , tells us in his study of medical students that the vast majority of students were perceived with poor quality sleep and symptoms of insomnia and as expected, in women, the symptoms of insomnia negatively affect academic performance. Which is very interesting since no impact on academic performance was found in our population. (Ojeda et al. 2019)

CONCLUSION.

In this research, was observed that the female gender had a greater incidence with perceived stress and insomnia, during online classes. Academic performance was not compromised in any gender group. It is important to investigate the possible triggers of stress and insomnia in both gender groups and if there is a relationship between them; as well as to investigate why the female gender is the one who suffers the most from stress and insomnia, given that this effect could impact the student's academic performance in the future.

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