

Chapter 9 Anxiety in medical students, during a COVID-19 pandemic

Capítulo 9 Ansiedad en estudiantes de medicina, durante pandemia COVID-19

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Abstract

Know the presence of anxiety in medical students from a private university in Colombia, during the COVID-19 pandemic. Non-experimental, quantitative, exploratory cross-sectional study; applied the DASS-21 scale. Cronbach's alpha of the total scale was 0.79. Descriptive analysis was carried out in statistical package spss v21, data collection was by google forms during the month of December 2020, with prior informed consent. The convenience sample consisted of 115 students from the medical school of a private university in the city of Cartagena, Colombia. Of this, 60 were women and 55 men. 80 students were anxious (medium, moderate, severe, and very severe). Very severe and severe anxiety was more frequently expressed in women. It is concluded that during the COVID-19 pandemic, 80 of 115 medical students from a private university in Cartagena Colombia presented anxiety.

Anxiety, Students, Medicine

Resumen

Conocer la presencia de ansiedad en estudiantes de medicina de una universidad privada de Colombia, durante la pandemia COVID-19. Estudio no experimental, cuantitativo, exploratorio de corte transversal; aplicó la escala DASS-21. El alpha de Cronbach de la escala total, fue de 0.79. Se realizó análisis descriptivo en paquete estadístico spss v21, la recolección de datos fue por Google forms durante el mes de diciembre del 2020, bajo previo consentimiento informado. La muestra por conveniencia se conformó por 115 estudiantes de la facultad de medicina, de una Universidad privada de la ciudad de Cartagena Colombia. De ello, 60 fueron mujeres y 55 hombres. 80 estudiantes resultaron con ansiedad (media, moderada, severa y muy severa). La ansiedad muy severa y severa se expresó con más frecuencia en mujeres. Se concluye que durante la pandemia COVID-19, 80 de 115 estudiantes de medicina de una universidad privada de Cartagena Colombia presentaron ansiedad.

Ansiedad, Estudiantes, Medicina

9.1 Introduction

The year 2020 and so far in 2021 has been difficult for the general population due to the pandemic of the new coronavirus in all its variants. This virus is considered highly contagious, causing rapid, severe and sometimes fatal infections. This has had a negative impact on the mental health of all people, forcing social isolation, fear, loneliness and uncertainty to prevail in some people, and in the educational context to migrate from face-to-face to virtual education. As a result, it altered the psychological well-being of many students and generated anxiety in them.

In Asian countries, the school population was one of the most affected, provoking anxiety in them, generated by the uncertainty of family income and that in turn required technological equipment for their educational activities (Sigüenza & Vélchez, 2021). Isolation measures included the promotion of education through virtual platforms (Saravia, Cazorla & Cedillo, 2020). At Changzhi University, out of 7143 medical students, 24.9% had anxiety due to the pandemic (Garcia-Espinosa, Ortiz-Jiménez, Botello-Hernández, Hernández-Díaz, Góngor-Rivera, & Gecen, 2021).

Garcia-Espinosa, et al. (2021), also reported that, out of 530 medical students in Saudi Arabia, 38.11% reported being emotionally tired and 56.22% acknowledged a decrease in their academic ability during this pandemic. Finally, they state that the predisposing factors: being female, knowing someone with symptomatology and being a non-clinical semester student, generated moderate-severe anxiety in 61.3% of 348 medical students.

At the same time, varying levels of anxiety were found in medical students at the National University of San Agustín, who are single, live alone and spend a lot of time listening to news about COVID-19. (Chambilla, 2021). Similarly, in students with anxiety in the health area in the Lambayeque region, having repetitive thoughts about becoming infected or infecting family members are influential as triggering factors (Zafra, 2021). (Zafra, 2021)

Likewise, in contemporary society, anxiety is common among young people, affecting their emotional and mental well-being (Ali & Cerkez, 2020). Medical students in Mexico believe that having been infected with COVID-19 or having a family member infected with COVID-19 or being the cause of death generated depression in them. (Yusvisaret, Palmer, Medina & López, 2021).

Today, within the university educational environment, the fulfilment of theoretical and practical skills is demanded as if continuing in the face-to-face context (prior to the COVID-19 pandemic). The pandemic has forced virtual education to take both students and teachers by surprise in order for them to appropriate the teaching and learning strategies that this modality implies. Therefore, the academic environment is different from the traditional one, making information and communication technologies the main and indispensable tools.

Therefore, the concern of educational institutions to offer optimal teaching requires visualising the entire educational context, which is why it is important to detect manifestations that hinder students' learning. In this regard, the psychological well-being of medical students is important and some of them may show anxiety, i.e. agitation and restlessness in their mood, which can disrupt learning. This is a behavioural disorder considered to be a prevalent illness worldwide (Sousaa, Santiago & Micó, 2020).

In relation to the above, the academic load that university students take each semester can affect the mental health of students in some way (Trunce, Villarroel, Arntz, Muñoz & Werner, 2020). It is well known that anxiety increases as the university student tends to procrastinate (Araoz & Uchasara, Altamirano, 2020). The medical student is subjected to a demanding, demanding and socially constrained work environment, which can sometimes be hostile and promote greater vulnerability to developing psychological disorders such as anxiety.

Before the pandemic, it was already known that about 20% of medical students show traits of anxiety and depression in the psychological profile for entry to this career. (Alvarez, 2020). In the first years of medical school, more anxious students have been observed (Caicedo, Díaz & Vidal, 2020) and even with depression and suicidal behaviours; with more prevalence in the last grades of the professional career. (Cosme, 2020) Also, during the medical internship year, anxious men score higher than women (Huarcaya, 2020).

Because the pandemic has brought about higher levels of mood distress, this study expects to find that at least 30% of the students surveyed suffer from anxiety, either at a severe or very severe level.

9.2 Method

The aim of this study was to determine the presence of anxiety in medical students at a private university in Colombia during the COVID-19 pandemic.

It was carried out under a non-experimental, quantitative, exploratory and cross-sectional methodology; the anxiety scale DASS-21 (Antúnez, 2012) was applied, which deals with how they felt during the past week and includes: moods, signs of nervousness, desire to live, desire to do activities, etc. Cronbach's alpha of the total scale was 0.79. Descriptive analysis was carried out using the statistical package spss v21, and the scale was applied using the google forms platform during the month of December 2020, with prior informed consent. The convenience sample consisted of 115 medical students from a private university in the city of Cartagena, Colombia.

9.3 Results and discussion

Of the 115 students who participated in this study, according to the gender variable, 60 were female and 55 were male. As can be seen in Table 1, the number of students can be seen in relation to the level of anxiety they manifested. In this sense, 80 students were found to have anxiety (medium, moderate, severe and very severe).

Very severe anxiety was expressed by 30 students, predominantly by 18 females. Severe anxiety was also more frequent in females, while moderate and medium anxiety predominated in males.

Table 9.1 Anxiety levels in medical students in Colombia

Range	Total	Gender
Normal	35	20 women 15 men
Medium	9	4 women 6 men
Moderate	19	5 women 14 men
Severe	22	13 women 8 men
Very severe	30	18 women 12 men

Source: Own elaboration, 2020

With the above, we agree with authors such as Sigüenza and Vílchez (2021), in assuring that during COVID isolation, anxious students did show up, as they perceived a greater academic load, affecting their mental and emotional well-being (Ali & Cerkez, 2020; Trunce, Villarroel, Arntz, Muñoz & Werner, 2020).

Likewise, it has been shown internationally that university students, especially in the area of health, tend to manifest anxious symptoms (Apaza & Gonza, 2020). According to Solernou and Solernou (2020), one in five university students suffers from anxiety disorder, and he refers to the fact that this could become an epidemic. High percentages of anxiety were found in medical students (Ruvalcaba, González & Jiménez, 2021), which reinforces the result found in this study.

Furthermore, it is in agreement with several studies stating that anxiety is more frequent in women than in men (López, Moreno & Sánchez, 2020; Quesada, Gutiérrez, Gutiérrez, Nouni, & Carratalá, 2021; Luna, Urquiza, Figuerola, Carreño & Meneses, 2020. And also with Luna, et al., 2020; Caicedo, Díaz and Vidal, 2020, who state that women who study medicine have more anxiety than men.

Although the causal factors of anxiety were not addressed in this study, however, it was considered relevant to investigate the current literature on them and the following was found:

- When the student is in the evaluation period, anxiety is more evident. (Nolasco, 2020).
- Living alone, having less than 5 hours for recreation, lack of time to eat, sleeping less than 5 hours, requiring more than 90 minutes to travel to the university. (Pinilla, López, Moreno & Sánchez, 2020).
- The level of anxiety increases as a function of curricular development, and among its main sources are academic, psychosocial and economic aspects (Luna, Urquiza, Figuerola, Carreño, & Meneses, 2020; Puig, Ricaño, Quiroz & Puig (2021).
- Sleep disturbances are associated with anxiety, poor performance of daily bodily tasks, depressive disorders, memory problems, academic and motivational problems, suicidal thoughts, obesity and cardiac morbidity. (Ramon, Cahuich & Lopez 2020)

9.4 Conclusion and recommendations

- Anxiety was manifested in 80 out of 115 medical students at a private university in Colombia during the COVID-19 pandemic.
- It predominated in women.
- The implementation of promotion and prevention strategies for anxiety control is recommended, such as: family and social support, sleeping 6 to 8 hours a day, allowing time for recreation and physical activity every day.
- Students are encouraged to recognise stressors and self-manage their own learning.

- Early diagnosis is requested in order to monitor and control the student who suffers from it and thus promote their emotional wellbeing, which has an impact on their learning and warn that it may evolve into depression, stress or Burnout syndrome, among others.
- The fear of catching the disease and infecting a family member can theoretically be considered a factor that generates anxiety in university students.
- We agree with Piñer, Gómez-Roso and López (2021) in mentioning that clinical rotations in the training of doctors during the COVID-19 pandemic are possible and necessary, as long as they are carried out appropriately with safety measures.

9.5 References

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