

Anxiety and alcohol consumption in university students in southern Mexico*Ansiedade e consumo de álcool em estudantes universitários do sul do México**Ansiedad y consumo de alcohol en estudiantes universitarios del sur de México*

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Abstract:

Objective: to determine the relationship between anxiety and alcohol consumption in university students from southern Mexico. **Method:** a quantitative, descriptive, cross-sectional, and correlational study was conducted. The surveyed population consisted of university students from four educational programs. A sample selected through simple random probability sampling was used. Data collection used the Beck Anxiety Inventory and the Alcohol Use Disorders Identification Test. SPSS Statistics version 25.0 was used, and descriptive and inferential statistics were used for analysis. **Results:** out of a population of 825 students, a sample of 545 participants. 64.2% of the sample were women, 65.1% were enrolled in a bachelor's degree in Nursing. 61.5% reported having a low level of anxiety, and 44.2% reported low-risk alcohol consumption. The relationship between anxiety and alcohol consumption was verified, and a positive and significant relationship was reported ($r_s=.185$, $p<0.01$). **Conclusion:** a positive and significant relationship between anxiety and alcohol consumption was identified in various programs. This can lead to the development of serious mental and physical health complications, probably in the short term.

Keywords: Anxiety; Alcohol drinking; Students; Mental Health.

Resumo:

Objetivo: determinar a relação entre a ansiedade e o consumo de álcool em estudantes universitários do sul do México. **Método:** pesquisa quantitativa, descritiva, transversal e correlacional, composta por estudantes universitários de quatro cursos através de amostragem probabilística aleatória simples. Utilizou-se o Inventário de Ansiedade de Beck e o Questionário de Identificação de Transtornos Devido ao Uso de Álcool. A análise se deu pelo SPSS Statistics versão 25.0, e estatística descritiva e inferencial. **Resultados:** de uma população de 825 estudantes participaram 545. Em 64,2% eram mulheres e 65,1% cursavam o bacharelado em enfermagem; 61,5% referiram ter um nível de ansiedade baixo, e 44,2% informaram ter um consumo de álcool de baixo risco. Verificou-se a relação da ansiedade com o consumo de álcool, reportando-se uma relação positiva e significativa ($r_s=0,185$, $p<0,01$). **Conclusão:** em diversos cursos, identificou-se relação positiva e significativa entre a ansiedade e o consumo de álcool. Isso pode favorecer o surgimento de complicações graves na saúde mental e física, provavelmente a curto prazo.

Palavras-chave: Ansiedade; Consumo de bebidas alcoólicas; Estudantes; Saúde Mental.

Resumen:

Objetivo: determinar la relación entre la ansiedad y el consumo de alcohol en estudiantes universitarios del sur de México. **Método:** investigación cuantitativa, descriptiva, transversal y correlacional. La población considerada fueron estudiantes universitarios de cuatro programas educativos, se utilizó una muestra seleccionada mediante un muestreo probabilístico aleatorio simple. Se usó el Inventario de Ansiedad de Beck y el Cuestionario de Identificación de los Trastornos Debidos al Consumo de Alcohol. El análisis ocurrió a través del SPSS Statistics versión 25,0, con estadística descriptiva e inferencial. **Resultados:** de una población de 825 estudiantes participaron 545. El 64,2% de la muestra eran mujeres, el 65,1% cursaban la carrera de licenciatura en enfermería. El 61,5% refirió tener un nivel de ansiedad baja, el 44,2% informó tener un consumo de alcohol de bajo riesgo. Se verificó relación de la ansiedad con el consumo de alcohol, se reportó una relación positiva y significativa ($r_s=.185$, $p<0.01$). **Conclusión:** en diversas carreras se identificó una relación positiva y significativa entre la ansiedad y el consumo de alcohol. Esto puede favorecer la aparición de complicaciones graves en la salud mental y física, probablemente a corto plazo.

Palabras clave: Ansiedad; Consumo de bebidas alcohólicas; Estudiantes; Salud mental.

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INTRODUCTION

Anxiety is mental health disorder that has come into prominence in recent years. This emotional state is characterized by the perception of physical and psychological symptoms, even though they do not actually have any. This can distort a person's perception of reality, both in their surroundings and in themselves¹. This disorder affected approximately 301 million people worldwide in 2019, most of which are women. Anxiety can be the result of the interaction of multiple aspects, such as social, psychological, and biological factors. Therefore, there is a broad classification of anxiety types, which depends on the symptoms presented by individuals. These symptoms can range from difficulty concentrating to sleep disturbances or feelings of danger². Anxiety constitutes a global public health problem, as anyone can experience anxiety symptoms throughout their life. For university students, factors such as academic pressure, career stress, lack of financial resources, as well as personal and social responsibilities, can be causes of anxiety that significantly impact their quality of life and academic performance³.

Anxiety is the most common mental health problem worldwide. According to the World Health Organization (WHO)², there are currently 301 million cases, and an estimated 4% of the global population currently suffers from an anxiety disorder. Furthermore, among the obstacles for dealing with anxiety, the lack of awareness that it is a treatable health condition stands out. The lack of investment in mental health services and trained health care providers, and social stigma contribute to this problem. Furthermore, anxiety is the sixth most common cause of disability worldwide, with no significant changes observed since 1990. It is considered a human experience that can vary in intensity, from mild to severe. Globally, it affects women more frequently (4.6%) and men (2.6%)⁴.

In Latin America, university students face a highly competitive academic environment and often lack the necessary resources to meet the psychological demands of their environment. This is reflected in a large portion of the student population experiencing high levels of anxiety and stress, which negatively affects their academic performance, mental health, and overall well being. Furthermore, the Pan American Health Organization (PAHO)⁵ states that 77% of women and 3.6% of men suffer from anxiety, and this condition regularly presents before the age of 18.

Research into the symptoms of anxiety should be given greater attention because it provokes negative emotional and behavioral reactions that impact an individual's motor and intellectual functioning. A study⁶ revealed that approximately 4.6% of students worldwide experience anxiety, and that it may be accompanied by another disorder, such as depression.

Similarly, it is noted that women have a higher rate of anxiety than men among university students.

In the American continent, it has been reported that approximately one in seven people experience an anxiety disorder at some point in their lives⁷. Regarding university students, it has been reported that in Europe, America, and Asia, the prevalence of anxiety is 31%. It is noted that since the COVID-19 pandemic, there has been an increase in the presence of mental health disorders, especially among young people in university. In the United States, of a sample of 2,000 university students, 88.8% reported that stress and anxiety are among the main impacts of the pandemic on their lives⁸.

In Mexico, the National Institute of Statistics and Geography (*Instituto Nacional de Estadística y Geografía* - INEGI) reports in the National of Survey on Well-being and Mental Health (*Encuesta Nacional sobre Bienestar y Salud Mental* - ENBIARE)⁹ that anxiety is highly prevalent in the population. 19.3% of adults show symptoms of severe anxiety, while 31.3% experience minimal or moderate anxiety symptoms. Furthermore, women are still more affected by this condition.

A study¹⁰ reported an 84% prevalence of anxiety in Mexican university students. Therefore, the mental health of university students has significant implications for public health. Furthermore, identifying mental disorders in this population is considered crucial, as many of these manifest at these stages of life and, in many cases, tend to become chronic. Few studies in the state of Tabasco have addressed anxiety in university students. A study¹¹ reported that 79.2% of the sample presented some type of anxiety, and the undergraduate programs with the highest prevalence were Medical Surgery (88.88%) and Nutrition (83.63%). Additionally, it was identified that 14.65% of students presented severe anxiety.

Another public health problem facing university students is substance use, including alcohol. Worldwide¹², alcohol consumption has caused 2.6 million deaths. Globally, it is estimated that nearly 400 million people (7%) over the age of 15 experience some form of alcohol consumption. In Latin America¹³, the consumption of alcohol is 40% above the global average. However, these figures have increased considerably following the COVID-19 pandemic. In its latest WHO report¹⁴, it states that, in America, the countries with the highest per capita consumption are Canada (9.9 liters) and the United States (9.6 liters). In South America, Argentina has the highest consumption (8 liters), followed by Brazil (7.8 liters), while Mexico occupies the tenth place (5.7 liters).

In the latter, the population with the highest consumption is young people aged 18 to 25, with a prevalence of 47%. This age group corresponds to the university population.

Furthermore, this behavior is predominantly present in men. Furthermore, this consumption behavior can negatively affect young people's moods, triggering short or long-term mental health issues, resulting in effects such as depression, anxiety, and stress¹⁵⁻¹⁶. In Tabasco, the prevalence of drug use among university students at a public university has reported that 73.5% have used drugs at least once in their lives, 51.6% in the last year, and their use is considered sensible ($M=3.2$, $SD=2.2$)¹⁷.

For the university population, the COVID-19 pandemic has produced changes in education, causing emotional disturbances, one of which is anxiety. This has led to symptoms such as feeling tense, worried, oppressed, dazed, and upset. One of the most common problems caused by the pandemic was social isolation. Uncertainty, fear of contagion, and financial difficulties led to an increase in anxiety disorders, depression, and stress. Many students experienced feelings of loneliness and lack of motivation due to the interruption of in-person university life⁸. Therefore, this research aims to determine the relationship between anxiety and alcohol consumption in university students in southern Mexico.

METHOD

This research was quantitative, descriptive, cross-sectional, and correlational¹⁸. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) declaration¹⁹, a standard for structuring observational (cross-sectional) studies, was used. The population consisted of students from a public university in the municipality of Jalpa de Méndez, Tabasco. The sample was calculated using the STAST application with the following criteria: a 95% confidence level, a 50% estimation percentage, and an estimated error of 5%. They were selected by simple random probability sampling from four educational programs (Bachelor's Degree in Nursing, Bachelor's Degree in Genomics, Nanotechnology Engineering, and Petrochemical Engineering) from all semesters.

Data collection took place between February and March 2024 and was conducted in person. The educational institution's authorities were contacted to arrange collection dates. On the scheduled day, the researchers presented themselves to each group to explain the study's objective. Students who agreed to participate were provided with the Free and Informed Consent Form. After signing it, they were given printed instruments and given an estimated 15 to 20 minutes to complete them. Students were present during this process to address any questions. Students were also told that they could place the answers in a box at the back of the classroom. Students were thanked for their participation.

The Beck Anxiety Inventory (BAI) and the Alcohol Use Disorders Identification Test (AUDIT) were used as instruments, as well as two personal information questions: sex and race. The Beck Anxiety Inventory consists of 21 items that provide a list of common anxiety symptoms, with 4-point Likert-type responses ranging from 0 (not at all) to 3 (severely). With a minimum score of 0 and a maximum of 63, the cutoff points for anxiety levels were set at 0 to 21 points as Low, 22 to 35 points as Moderate, and more than 36 points as Severe. This instrument has an internal consistency of 0.93 using Cronbach's alpha.

The Alcohol Use Disorders Identification Test (AUDIT) consists of 10 items that assess alcohol use over the past year, with multiple-choice responses. The minimum score is 0 and the maximum is 40. The following cutoff points were used: 1 to 3 points for low-risk use, 4 to 7 points for hazardous use, and more than 8 points for harmful use. This instrument has a Cronbach's alpha reliability of 0.80.

For ethical considerations, this research was based on the general provisions of the Regulations of the General Health Law on Health Research²⁰, which prioritized respect for the dignity and protection of the rights of participants. The privacy of the university students was protected. This research was also considered risk-free because no modifications were made to the conduct or invasive procedures. Participants were considered subordinate groups, ensuring that failure to participate would not incur any academic repercussions.

After collecting the information, a database was created using IBM SPSS Statistics²¹ version 25. Descriptive statistics were used using frequencies and proportions. The Kolmogorov-Smirnov test with Lilliefors correction was applied to determine data normality. Since the data did not show normality, nonparametric statistics were used, and Spearman's correlation coefficient was used to analyze the relationship between variables.

RESULTS

A sample of 545 students was used from a population of 825. The characteristics of the study sample (Table 1) show that 64.2% were women and the remainder were men. Regarding the educational program they were enrolled in, the largest percentage (65.1%) belonged to the Nursing educational program. This may be due to the fact that other educational programs (Petrochemical Engineering, Nanotechnology Engineering, and Genomics) have low enrollment, probably because many young people are interested in the health field. The mean age was 21.6 (SD = 2.8).

Table 1. Sociodemographic data of students at the Universidad de Jalpa de Méndez/Tabasco, Mexico, 2024.

Variables	f	%
Sex		
Female	350	64.2
Male	195	35.8
Professional Area		
Nursing	355	65.1
Petrochemistry	88	16.1
Genomics	77	14.1
Nanotechnology	25	4.6

Note: n = 545, f = frequency, % = percentage

Regarding anxiety levels (Table 2), the majority of the sample in this study (61.5%) reported low levels, followed by those with moderate levels (24.0%). Regarding types of alcohol consumption, 44.2% of the students reported low-risk consumption; however, 32.3% reported hazardous consumption.

Table 2. Anxiety levels and types of alcohol consumption among students. Universidad de Jalpa de Méndez/Tabasco, Mexico, 2024.

Anxiety	f	%
Low	335	61.5
Moderate	131	24.0
Severe	79	14.5
Type of consumption*	f	%
Low risk	126	44.2
Hazardous consumption	92	32.3
Harmful consumption	67	23.5

Note: n= 545, *Partial sample of students who consumed alcohol in the last year n=285

In order to compare anxiety levels and types of alcohol consumption (Table 3), it can be highlighted that students with low anxiety levels mostly reported low-risk consumption (27.0%), the same situation as for those with moderate anxiety levels (12.6%). However, with respect to students who reported severe anxiety levels, the highest percentage reported harmful consumption (5.6%), followed by hazardous consumption (5.3%).

Table 3. Comparison of anxiety levels and types of alcohol consumption among students at the Universidad de Jalpa de Méndez/Tabasco, Mexico, 2024.

Anxiety \ Type of consumption	Low risk		Hazardous consumption		Harmful consumption	
	f	%	f	%	f	%
Low	77	27.0	56	19.6	27	9.5
Moderate	36	12.6	21	7.4	24	8.4
Severe	13	4.6	15	5.3	16	5.6
Total	126	44.2	92	32.3	67	23.5

Note: n= 285, Partial sample of students who consumed alcohol in the last year.

Regarding the relationship between the study variables (Table 4), anxiety was found to have a positive and significant relationship with alcohol consumption ($r_s=0.185$, $p<.01$), meaning that the greater the anxiety, the greater the alcohol consumption. However, this relationship is very low; therefore, these data should be considered with caution, as they can only be applied to the study sample with the characteristics of its context.

Table 4. Correlation of variables in a study on alcohol consumption by students at the Universidad de Jalpa de Méndez/Tabasco, Mexico, 2024.

Variables	Type of consumption
Anxiety	0.185*

Note: * $p<0.01$, Spearman correlation

DISCUSSION

It was observed that the majority of participants were women (64.2%), and that 65.1% were enrolled in a Bachelor's degree in Nursing. These results are consistent with research showing a greater representation of women in healthcare programs²²⁻²³. The lower representation in the Nanotechnology program could be attributed to factors such as the perceived complexity of the discipline and a lack of information about its professional applications.

It was found that 61.5% of the population evaluated had low levels of anxiety, which represents a positive finding in terms of mental health within the academic population. This result partially differs from other studies conducted in similar contexts, where a higher prevalence of anxiety symptoms among university students has been reported²⁴⁻²⁵. The discrepancy between these studies may be explained by methodological, contextual, or cultural differences. It is important to note that, although most present a low level of anxiety, a significant percentage still may be experiencing moderate or high levels. This highlights the need to continue promoting preventive and early intervention strategies, especially for those at risk of developing more severe anxiety disorders.

Furthermore, 44.2% of the university students surveyed reported low risk consumption, which is a relatively favorable indicator in the context of substance use in the university setting. However, this finding also implies that more than 50% of students may be involved in risky, hazardous, or harmful consumption, which constitutes a focus of attention for educational institutions, as well as university health services. These results were similar to those found by another study²⁶, which highlights that this type of consumption, while not immediately risky, can evolve into more problematic forms if clear limits are not established or if vulnerability factors such as academic stress, social pressure, or lack of emotional support are present. In

this sense, the results reinforce the need for ongoing educational initiatives that promote informed and responsible decisions, as well as the strengthening of protective factors such as self-esteem, social support, and stress-coping skills.

On the other hand, regarding the relationship between anxiety and alcohol consumption in university students, the results obtained show the existence of a positive and statistically significant correlation ($r_s = 0.185$, $p < .01$) between both variables. Although this correlation has low magnitude, this finding is still relevant, as it suggests that higher levels of anxiety tend to increase alcohol consumption among the individuals evaluated. This result is similar to another study²⁶, which demonstrated a relationship between anxiety symptoms and substance use as a form of coping. In the university context, where students face high levels of academic stress, social pressure, and important decision-making, alcohol can be perceived as a quick way to temporarily reduce emotional distress, despite its long-term consequences²⁷.

Furthermore, the observed correlation supports the self-medication model theory, which posits that some individuals turn to substance use as a strategy to alleviate psychological symptoms, including anxiety²⁸. Although the relationship was not high in this study, its statistical significance reinforces the need to design integrated prevention strategies that encompass mental health and substance use, especially in young populations.

CONCLUSION

In the sample studied in this research, it was identified that the majority of students were women and from the health field. Regarding anxiety levels, a large part of the sample reported low levels; however, some students reported moderate and severe anxiety. Regarding alcohol consumption, the majority reported hazardous and harmful consumption, and the rest reported low risk consumption. A positive and significant relationship between anxiety and alcohol consumption was identified among university students from various majors; that is, the higher the anxiety level, the greater the alcohol consumption. This can lead to serious mental and physical health complications, likely in the short term.

A limitation of this study is that the sample is very specific to the region, so it cannot be compared to other students from different regions, and is restricted to the context of that geographic area. Furthermore, its cross-section limits the estimation of causal relationships and the generalization of the results. Therefore, predictive studies would be necessary in this population, as well as in university institutions in different geographic areas, to gain a broader understanding of the mental health behaviors of university students and the possible

relationship with substance use. For this reason, educational institutions are encouraged to conduct early detection and mental health promotion activities.

REFERENCES

1. Secretaría de Salud México. ¿Qué es la ansiedad?, son trastornos más comunes [Internet]. México: Gobierno del Estado de México; 2015 [cited in 30 Mar 2025]. Available from: <https://www.gob.mx/salud/articulos/que-es-la-ansiedad>
2. Organización Mundial de la Salud. Trastornos de ansiedad [Internet]. Ginebra: OMS; 2023 [cited in 30 Mar 2025]. Available from: <https://www.who.int/es/news-room/fact-sheets/detail/anxiety-disorders>
3. Souza-Martins D, Figueroa-Ángel M. X. Factores psicológicos de los estudiantes universitarios y calidad de vida: una revisión sistemática prepandemia. Interdisciplinaria [Internet]. 2023 [cited in 30 Mar 2025]; 40(1):24-41. DOI: <https://dx.doi.org/10.16888/interd.2023.40.1.2>
4. Fernández MM, García CI, Portero de la CS, Cebrino CJ. Nivel de ansiedad en estudiantes universitarios. Nure Invest. [Internet]. 2021 [cited in 30 Mar 2025]; 18(112). Available from: <https://www.nureinvestigacion.es/OJS/index.php/nure/article/view/2105/965>
5. Organización Panamericana de la Salud. Salud Mental [Internet]. Washington, D.C.: OPAS; [data desconhecida] [cited in 30 Mar 2025]. Available from: <https://www.paho.org/es/temas/salud-mental>
6. Supe LRV, Gavilanes, MFR. Ansiedad y calidad de vida en estudiantes universitarios. LATAM LATAM Revista Latinoamericana de Ciencias Sociales y Humanidades [Internet]. 2023 [cited in 30 Mar 2025]; 4(2):2522-2530. DOI: <https://doi.org/10.56712/latam.v4i2.774>
7. Errazuriz A, Avello-Vega D, Passi-Solar A, Torres R, Bacigalupo F, Crossley NA, et al. Prevalence of anxiety disorders in Latin America: a systematic review and meta-analysis. Lancet Reg Health Am. [Internet]. 2025 [cited in 30 Mar 2025]; 45:101057. DOI: <https://doi.org/10.1016/j.lana.2025.101057>
8. Tan GXD, Soh XC, Hartanto A, Goh AYH, Majeed NM. Prevalence of anxiety in college and university students: An umbrella review. J Affect Disord Rep. [Internet]. 2023 [cited in 30 Mar 2025]; 14:100658. DOI: <https://doi.org/10.1016/j.jadr.2023.100658>
9. Instituto Nacional de Estadística y Geografía (México). Presenta INEGI resultados de la primera Encuesta Nacional de Bienestar Autorreportado (ENBIARE) 2021 [Internet]. Aguascalientes, MX: INEGI; 2021 [cited in 30 Mar 2025]. Available from:

https://www.inegi.org.mx/contenidos/saladeprensa/boletines/2021/EstSociodemo/ENBIAR E_2021.pdf

10. Pérez-Pérez M, Fernández-Sánchez H, Enríquez-Hernández CB, López-Orozco G, Ortiz-Vargas I, Gómez-Calles TJ. Estrés, ansiedad, depresión y apoyo familiar en universitarios mexicanos durante la pandemia de COVID-19. *Salud Uninorte* [Internet]. 2021 [cited in 30 Mar 2025]; 37(3):553-68. DOI: <https://dx.doi.org/10.14482/sun.37.3.616.98>
11. López-Wade A, Viveros-Ojeda VA. Incidencia y grado de ansiedad en estudiantes de nivel superior del área de ciencias de la salud. *Salud en Tabasco* [Internet]. 2018 [cited in 30 Mar 2025]; 24(1):21-6. Available from: <https://tabasco.gob.mx/sites/default/files/users/ssaludtabasco/21.pdf>
12. Organización Mundial de la Salud. Alcohol [Internet]. Ginebra: OMS; 2024 [citado en 30 mar 2025]. Disponible en: <https://www.who.int/es/news-room/fact-sheets/detail/alcohol>
13. Organización Panamericana de la Salud. Alcohol [Internet]. Washington, D.C.: OPAS; 2020 [cited in 30 Mar 2025]. Available from: <https://www.paho.org/es/temas/alcohol>
14. World Health Organization. Global Status report on alcohol and health and treatment of substance use disorders [Internet]. Ginebra: WHO; 2024 [cited in 30 Mar 2025]. Available from: <https://iris.who.int/bitstream/handle/10665/377960/9789240096745-eng.pdf?sequence=1>
15. Jiménez-Franco LE, Fonseca Fernández M. Caracterización del consumo de alcohol en estudiantes universitarios. *Rev Inf Cient.* [Internet]. 2025 [cited in 30 Mar 2025]; 104:e4759. DOI: <https://doi.org/10.5281/zenodo.13899307>
16. Lerma A, Soto-Huerta JA, González-Flores CJ, Guzmán-Saldaña RME, Aguirre-Villegas D, Lerma C. Validation of a questionnaire of motivations for moderated and severe alcohol consumption among college students. *Healthcare* [Internet]. 2025 [cited in 30 Mar 2025]; 13(3):307. DOI: <https://doi.org/10.3390/healthcare13030307>
17. Rodríguez de la Cruz PJ, González-Angulo P, Salazar-Mendoza J, Camacho-Martínez JU, López-Cocotle JJ. Percepción de riesgo de consumo de alcohol y tabaco en universitarios del área de salud. *SANUS* [Internet]. 2022 [cited in 30 Mar 2025]; 7(18):e222. DOI: <https://doi.org/10.36789/revsanus.vi1.222>
18. Hernández SR, Mendoza TCP. Metodología de la investigación las rutas cuantitativas, cualitativa y mixta. 2a. ed. Ciudad de México: McGrall Hill; 2023.
19. Von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP, STROBE Initiative. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. *Ann Intern Med.*

[Internet]. 2007 [cited in 30 Mar 2025]; 147(8):573-7. DOI: <https://doi.org/10.7326/0003-4819-147-8-200710160-00010>

20. Secretaría de Salud México. Reglamento de la ley general de salud en materia de investigación para la salud [Internet]. México: Congreso de la Unión; 2014 [cited in 30 Mar 2025]. Available from: https://www.diputados.gob.mx/LeyesBiblio/regley/Reg_LGS_MIS.pdf

21. IBM Academic Information Systems. IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM; 2017.

22. Freitas PHBD, Meireles AL, Ribeiro IKDS, Abreu MNS, Paula WD, Cardoso CS. Síntomas de depresión, ansiedad y estrés en estudiantes del área de la salud e impacto en la calidad de vida. *Rev Latino-Am Enferm*. [Internet]. 2023 [cited in 1 May 2025]; 31:e3884. DOI: <https://doi.org/10.1590/1518-8345.6315.3884>

23. Tenahua-Quitl I, De Avila-Arroyo ML, Torres-Reyes A, López-García C, Bonilla-Rodríguez B. Depresión, ansiedad y consumo de alcohol en estudiantes universitarios de enfermería. *Enferm Univ*. [Internet]. 2022 [cited in 1 May 2025]; 19(2):110-21. DOI: <https://doi.org/10.22201/eneo.23958421e.2022.2.1331>

24. López Herrera R, Linares Gutiérrez F, Pérez Guerrero R, Gaona Escobar B, Cervera Baas ME. Relación entre estrés académico y ansiedad en estudiantes universitarios mexicanos. *Rev. Chil Enferm*. [Internet]. 2024 [cited in 13 June 2025]; 6:74661. Available from: <https://rej.uchile.cl/index.php/RCHE/article/view/74661>

25. Jiménez HW, Cusme TN, Cantuñi CV, Chasillacta AF, Egas MFP. Depresión, ansiedad y estrés en estudiantes universitarios. *LATAM* [Internet]. 2023 [cited in 13 June 2025]; 4(3):978-88. DOI: <https://doi.org/10.56712/latam.v4i3.1126>

26. Correa VC, Moreno MM, Baldovino YAR. Consumo de alcohol asociado a síntomas de ansiedad en estudiantes universitarios [Internet]. [Trabajo de Grado de Pregrado]. Bogotá: Universidad Cooperativa de Colombia; 2024 [cited in 01 May 2025]. Available from: <https://repository.ucc.edu.co/server/api/core/bitstreams/48bb9081-313d-4529-8259-416c04ace92f/content>

27. Leonangeli S, Michelini Y, Montejano GR. Depresión, ansiedad y estrés en estudiantes universitarios antes y durante los primeros tres meses de cuarentena por COVID-19. *Rev Colomb Psicol* [Internet]. 2022 [cited in 14 June 2025]; 53(3): 284-94. DOI: <https://doi.org/10.1016/j.rcp.2022.04.008>

28. Hawn SE, Cusack SE, Amstadter AB. A systematic review of the self-medication hypothesis in the context of posttraumatic stress disorder and comorbid problematic alcohol use. *J*

Trauma Stress [Internet]. 2020 [cited in 5 May 2025]; 33(5):699-708. DOI: <https://doi.org/10.1002/jts.22521>

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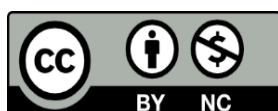
Custodio JV, González-Angulo P, Camacho-Martínez JU, Zapata JTH. Anxiety and alcohol consumption in university students in southern Mexico. Rev Fam, Ciclos Vida Saúde Contexto Soc. [Internet]. 2025 [cited in *insert day, month and year of access*]; 13:e025012. DOI: <https://doi.org/10.18554/zrz1q417>

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