Revista de Ciencias Médicas de Pinar del Río

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2025; 29(S2): e7057

BRIEF COMMUNICATION

Influence of the academic environment on the prevalence of eating disorders among Dentistry students

Jaidy Celine Salas-Castro[1], **Gabriela Liseth Vaca-Altamirano**[1], **Yamily Cardona-González**[1]

[1]Universidad Regional Autónoma de los Andes. Ambato, Ecuador.

Received: December 30, 2025
Accepted: December 31, 2025
Published: December 31, 2025

Citar como: Salas-Castro JC, Vaca-Altamirano GL, Cardona-González Y. Influencia del entorno académico en la prevalencia de trastornos alimenticios en estudiantes de Odontología. Rev Ciencias Médicas [Internet]. 2025 [citado: fecha de acceso]; 29(S2): e7057. Disponible en: http://revcmpinar.sld.cu/index.php/publicaciones/article/view/7057

ABSTRACT

Introduction: eating disorders constitute a multifactorial problem that affects both physical and mental health, with university students being a vulnerable group due to academic stress.
Objective: to evaluate the prevalence and associated factors of eating disorders among third-semester dentistry students at the Universidad Regional Autónoma de los Andes.
Methods: a mixed, descriptive, and cross-sectional study was conducted, following Sampieri's classification. The population included 84 students selected through census sampling. Validated questionnaires SCOFF and EAT-26 were applied, ensuring informed consent and confidentiality. Data were analyzed using descriptive statistics, considering bioethical principles of respect and beneficence.
Results: SCOFF test identified 38 % of students with a positive risk of eating disorders, mainly associated with overweight perception and loss of control over food intake. The EAT-26 showed 12 % of cases with scores suggestive of risk, highlighting subdomains related to bulimia, restrictive dieting, and oral control. Most participants belonged to the middle class (86 %) and lived with both parents (76 %). Limited interest in healthy habits and a predominance of low-nutrition food options in the university environment were observed.
Conclusions: the findings reveal a significant prevalence of risk for eating disorders among dentistry students, linked to academic stress and the lack of healthy options. The need to implement nutritional education programs and prevention strategies in the university setting is emphasized, aiming to reduce student vulnerability and promote balanced lifestyles.

Keywords: Health Facility Environment; Feeding Behavior; Students, Dental; Feeding And Eating Disorders.

CC-BY-NC- 4.0

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2025; 29(S2): e7057

INTRODUCTION

Nutrition is fundamental to human life, as it provides the essential nutrients required for physical and intellectual development. In modern society, human eating behavior is gradually changing. Inadequate dietary patterns are now recognized as "disordered eating behavior" or "diseases of civilization," negatively impacting students' intellectual performance and learning capacity. It has been estimated that 1 % of girls and young women aged 15 to 24 suffer from anorexia nervosa—a figure that continues to rise.(1)

Eating behavior reflects the interaction between individuals and the foods they consume, often shaped by stereotypes about eating under daily conditions and during stress, as well as by behaviors aimed at constructing a specific body image.(2) Psychologists suggest this behavior is linked to motivational needs, with food consumption being a basic human requirement. (3) This is especially critical for university students, who require sustained mental concentration and thus need specialized, adequate nutrition.

Symptoms of eating disorders arise from prolonged exposure to a combination of behavioral, emotional, psychological, interpersonal, social, environmental, and economic factors. Thus, eating disorders are multifactorial, placing health at risk—particularly due to anxiety or stress among young students. Inadequate nutrition may prevent students from achieving their necessary energy potential, triggering disorders with serious consequences.(4)

Regarding causes, scientific opinions vary, leading to multiple theories. Followers of Sigmund Freud's ideas believe unresolved archaic complexes play a decisive role in the emergence of eating disorders, manifesting as somatic symptoms. (2) Proponents of the biological approach emphasize heredity and individual psychophysiological traits as primary factors. Another theory posits that eating disorders develop in the context of family conflict. (5)

It is crucial for individuals to be aware of the quality and safety of available foods, making informed choices and adopting healthy eating behaviors.(3) Currently, body dissatisfaction has become one of the most common triggers for eating disorders, fueled by social, familial, and peer pressure—leading to low self-confidence and reduced academic concentration due to poor nutrition.(6)

Students themselves bear responsibility for preventing eating disorders by establishing balanced diets based on natural foods containing essential vitamins, lipids, proteins, and adequate caloric intake for proper development.(7) Given this context, the present study was conducted to evaluate the prevalence and associated factors of eating disorders among third-semester dentistry students at the Universidad Regional Autónoma de los Andes.

METHODS

This deductive research study examined potential factors triggering eating disorders linked to the academic environment of dentistry students, using a mixed-methods, cross-sectional design.

The population consisted of all third-semester dentistry students at the Universidad Regional Autónoma de los Andes, Ambato campus—comprising two parallel groups totaling 84 students. The sole inclusion criterion was provision of informed consent.

CC-BY-NC- 4.0

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2025; 29(S2): e7057

Data collection employed the validated SCOFF and EAT-26 questionnaires, designed to identify risk factors for eating disorders. The SCOFF (Sick, Control, One, Fat, Food) questionnaire includes five yes/no questions (No = 0, Yes = 1). A score of ≥2 indicates risk for eating disorders.[8] The EAT-26 (Eating Attitudes Test) comprises 26 items assessing dieting, bulimia, food preoccupation, and oral control, rated on a 6-point scale (Always = 3, Usually = 2, Often = 1, Sometimes/Rarely/Never = 0).[9] A total score ≥20 suggests clinical risk.

To analyze the data from each of these tests and their relative sufficiency, and to emphasize their diagnostic value, we note that regarding the SCOFF test—which consists of 5 yes-or-no questions—the questionnaire is considered positive when the respondent answers affirmatively to 2 or more questions. The SCOFF questionnaire was administered in written form, including information on age, school grade, and socioeconomic level. The relative percentage of positive and negative responses to the SCOFF test was calculated.

As for the EAT-26 test, it validates 4 domains: bulimia, dieting, food preoccupation, and oral control. To identify eating disorders (ED) through this test, each option was weighted, and the values for each respondent were summed. A cutoff point of 20 was established, where all individuals scoring equal to or above this value were considered positive for ED.

Additionally, factors such as emotional state, economic situation, and social and family ties were taken into account. Each of the theoretical frameworks considered was reflected in the diagnosis of the corresponding type of eating behavior. The eating behavior test fully meets the criteria of reliability and validity. Likewise, primary data were managed for the respective analysis of each contribution or response, in order to obtain a real result. This allowed us to compare findings with other studies by different authors and arrive at a final conclusion regarding the issue.

RESULTS

Sociodemographic characteristics (Table 1) showed a predominance of females (69 %) and an age peak at 19 years. Most students belonged to middle socioeconomic class (86 %), and 76 % lived with both parents.

Table 1. Sociodemographic characteristics of the population.

Variable		No.	%
Age	19 years	31	37
	20 years	25	30
	21 years	18	21
	22–25 years	10	12
Sex	Female	58	69
	Male	26	31
Socioeconomic class	Low	9	10
	Middle	72	86
	High	3	4
Parents in household	None	9	11
	Father only	1	1
	Mother only	10	12
	Both	64	76

CC-BY-NC- 4.0

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2025; 29(S2): e7057

SCOFF results (Table 2) revealed that 95 % of students do not self-induce vomiting when feeling full, and 62 % are not concerned about losing control over food intake. However, 35 % perceive themselves as overweight despite others describing them as thin, and 27 % feel food dominates their lives—a concerning indicator of stress and disordered eating.

Table 2. SCOFF test results.

Question	Response	No.	%
Do you make yourself sick because you feel uncomfortably full?	Yes	4	4,76
	No	80	95,24
Do you worry you have lost control over how much you eat?	Yes	32	38,10
	No	52	61,90
Have you recently lost more than 6 kg (14 lbs) in three months?	Yes	17	20,24
	No	67	79,76
Do you believe yourself to be fat when others say you are too thin?	Yes	29	34,52
	No	55	65,48
Would you say food dominates your life?	Yes	23	27,38
	No	61	72,6

According to the SCOFF Test, 38 % of respondents (32 individuals) were positive, having answered affirmatively to two or more questions. Meanwhile, 62 % answered affirmatively to only one or none. A positive result is indicative of a possible eating disorder and requires a specialized interview to identify the specific problem or any other condition that may have developed.

To analyze the bulimia subdomain, scores from questions 1, 3, 4, 10, 11, 12, 14, 18, 19, 21, 22, and 26 were considered. The sum of the Likert scale responses was compared to a cutoff point of 12, with values above this threshold serving as a positive indicator of bulimia. This analysis revealed 7 individuals with scores of 14, 18, and 20, suggesting signs of bulimia and requiring psychiatric evaluation to confirm the diagnosis.

For the dieting subdomain, questions 6, 7, 16, 17, 23, and 25 were analyzed using a weighted sum procedure, with a cutoff point of 7. Only 5 individuals scored above this value, indicating active concern with following a diet or regulated eating habits. While this is not necessarily an indicator of an eating disorder, it may trigger one or be associated with a preexisting condition.

The third subdomain was oral-dietary control, analyzed through questions 2, 8, 13, 20, and 24 using the same procedure, with a cutoff point of 7. Five individuals exceeded this threshold, suggesting a possible eating disorder related to obsessive behaviors such as calorie counting, carbohydrate-free diets, or avoidance of certain foods, among others.

The last subdomain refers to oral-bulimia control, which considered questions 5 and 9, with a cutoff point of 3. Five positive results were obtained, indicating individuals who attempt to control or prevent vomiting after eating large portions of food or due to certain habits. These five individuals may be at some risk of bulimia prevalence.

CC-BY-NC- 4.0

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2025; 29(S2): e7057

After analyzing and weighting the surveys conducted with 84 students using the EAT-26 test, it was found that 12 % present a positive risk of developing an eating disorder, corresponding to 10 individuals. A positive risk factor is considered when the total score across the 26 questions exceeds 20. Those who scored below this threshold are considered to be at negative risk.

DISCUSSION

This study focused on evaluating the percentage of risk among Uniandes students of suffering from or developing an eating disorder through the SCOFF and EAT-26 tests. Results from the SCOFF test show that 38 % of students present a risk of having an eating disorder. This value is consistent with a study conducted among university students in Colombia, where 38,7 % were found to be at risk of eating disorders using the SCOFF test.[8] While the SCOFF test is a good indicator of the presence of disorders, a psychiatric interview is necessary to confirm them. In this case, 32 students were identified as being at risk, which is further analyzed in depth through the EAT-26 test, with its four subdomains providing more detailed information on the specific type of disorder.

Harrer M. et al.,[9] mention that there are small effects on global eating disorder symptoms, weight concerns, and affective symptoms—factors that, although initially minor, tend to escalate until they become predominant in eating behavior. In this study, moderate effect sizes were calculated for dieting, body dissatisfaction, and drive for thinness, while no significant effects were found for bulimia nervosa symptoms. These findings align with our evidence, as a small group—less than 10 %—express concerns about their weight and eating habits. This percentage is concerning, as it may increase or lead to bulimia nervosa and other disorders in the future.

Currently, a promising avenue for future research is to evaluate how eating disorder prevention can be efficiently implemented in universities.[10] From the test results, it was observed that the majority of students do not pay attention to their diet, with more than 50% reporting that they never pay attention to what they eat, and more than 50 % stating that they always seek new culinary experiences. This indicates that the new gastronomic options they pursue are not chosen for their health value, but may instead involve fast food, particularly in the vicinity of the educational institution, where such establishments are predominant.[11,12]

On the other hand, it is noted that the application of a test such as EAT-26 cannot be considered an effective diagnostic tool, as psychiatric intervention with interviews is required to determine whether or not an eating disorder is present among respondents.[13] In another study with similar results, conducted at a Peruvian university, an incidence of 10 % was found using the EAT-26 test.[14] However, Yu,[15] in applying this test to 1,328 Chinese students, reported a percentage of 5,3 %, which is much lower than the two South American studies. This difference may be due to cultural and gastronomic factors.

Therefore, it is understood that the present study may serve as a guide and general overview of the state of eating disorders among university students. However, it must be emphasized that psychiatric evaluation is required for those students identified as being at risk, in order to confirm the diagnosis and provide appropriate treatment.

CC-BY-NC- 4.0

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2025; 29(S2): e7057

CONCLUSIONS

Third-semester dentistry students at UNIANDES show a 38 % risk of eating disorders—primarily bulimia nervosa and anorexia—linked to academic routines, stress, and limited time for healthy eating. Key contributing factors include disinterest in nutritious diets, carbohydrate-rich food availability near campus, and poor planning of daily meals. Nearly 80 % of students rarely consume or recognize healthy, low-carb, low-sugar foods, while similarly high percentages frequently choose appetizing but unhealthy options. These findings underscore the urgent need for nutritional education and preventive interventions to promote balanced, healthy lifestyles among dental students.

BIBLIOGRAPHIC REFERENCES

1. Samatán E, Ruiz P. Trastornos de la conducta alimentaria en adolescentes durante pandemia covid-19: estudio transversal. Rev Psiquiatr Infanto-Juv[internet]. 2021[citado 22/11/2025]; 38(1): 40-52. Disponible en: https://doi.org/10.31766/revpsij.v38n1a6

2. Cueto J, Franco K, Bautista M, Telles F. Universal prevention program for eating disorders risk factors in Mexican adolescents. Rev Psicol Clin Con Ninos Adolesc[internet]. 2022[citado 22/11/2025]; 9(1):45-53. Disponible en: https://psycnet.apa.org/record/2024-01011-003

3. Huete M. Trastorno de conducta alimentaria durante la pandemia del SARS-CoV-2. Rev Neuropsiquiatr[internet]. 2022[citado 22/11/2025]; 85(1):66-71. Disponible en: https://doi.org/10.20453/rnp.v85i1.4156

4. Gualdron Castañeda, T. Anorexia y bulimia nerviosa asociadas a estereotipos de belleza en mujeres adolescentes de 13 a 17 años de edad. [Internet]. Bogotá: Universidad Cooperativa de Colombia, Facultad de Ciencias Sociales, Psicología, Bogotá[internet]. 2020[citado 22/11/2025]. Disponible en: https://repository.ucc.edu.co/entities/publication/c6c7e8ea-550e-4394-b92a-eb713b9565d9

5. Moreno M, Ortiz G. Trastorno alimentario y su relación con la imagen corporal y la autoestima en adolescentes. Ter Psicol[internet]. 2019[citado 22/11/2025]; 27(2):181-90. Disponible en: https://www.scielo.cl/scielo.php?pid=S0718-48082009000200004&script=sci_arttext

6. Moreno J, Torres J, Reyes M, Pinzón I, Rodríguez L. Perspectivas de las intervenciones de la fisioterapia respiratoria en cuidado intensivo frente al COVID-19. Arch Med Manizales[internet]. 2021[citado 22/11/2025]; 21(2). Disponible en: https://www.redalyc.org/journal/2738/273868435027/273868435027.pdf

7. Guadarrama R, Mendoza S. Factores de riesgo de anorexia y bulimia nerviosa en estudiantes de preparatoria: un análisis por sexo. Enseñ E Investig En Psicol[internet]. 2011[citado 22/11/2025]; 16(1):125-136. Disponible en: https://www.redalyc.org/articulo.oa?id=29215963011

8. Lara PSB. Frecuencia de Trastornos Alimentarios en Adultos Jóvenes de la Pontificia Universidad Católica del Ecuador, Quito Noviembre-Diciembre[internet]. 2015[citado 22/11/2025]: 55. Disponible en: https://repositorio.puce.edu.ec/handle/123456789/24857

CC-BY-NC- 4.0

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2025; 29(S2): e7057

9. Harrer M, Adam SH, Messner E, Baumeister H, Cuijpers P, Bruffaerts R, et al. Prevention of eating disorders at universities: A systematic review and meta-analysis. Int J Eat Disord[internet]. junio 2020[citado 22/11/2025]; 53(6):813-33. Disponible en: https://onlinelibrary.wiley.com/doi/epdf/10.1002/eat.23224

10. Losada A. Herramientas de Evaluacion En Trastornos de La Conducta Alimentaria. Editor Académica Española[internet]; 2013[citado 22/11/2025]. Disponible en: https://www.aacademica.org/analia.veronica.losada/14.pdf?view

11. Perpiña C. Trastornos alimentarios y de la ingestión de alimentos.(2.a edición actualizada). Síntesis[internet]; 2015[citado 22/11/2025]. Disponible en: https://www.sintesis.com/libro/trastornos-alimentarios-y-de-la-ingestion-de-alimentos-segunda-edicion-revisada-y-actualizada

12. Constaín GA, Ricardo Ramírez C, Rodríguez-Gázquez M de los Á, Álvarez Gómez M, Marín Múnera C, Agudelo Acosta C. Validez y utilidad diagnóstica de la escala EAT-26 para la evaluación del riesgo de trastornos de la conducta alimentaria en población femenina de Medellín, Colombia. Aten Primaria[internet]. 2014[citado 22/11/2025]; 46(6):283-9. Disponible en: https://www.elsevier.es/es-revista-atencion-primaria-27-articulo-validez-utilidad-diagnostica-escala-eat-26-S0212656714000134

13. Fischer R. Análisis del test de actitudes alimentarias (Eat-26) con un modelo tipo Rasch en una muestra de adolescentes paraguayos. Cuad Hispanoam Psicol[internet]. 2016[citado 22/11/2025]; 16(1):5-16. Disponible en: https://doaj.org/article/a88020afab494c7a9dab0f9040ec78d7

14. Ponce, Turpo K. Trastornos de la conducta alimentaria en estudiantes de medicina de una universidad de Perú. Rev Cuba Salud Pública[internet]. 2017[citado 22/11/2025]; 43(4):17. Disponible en: http://scielo.sld.cu/pdf/rcsp/v43n4/spu06417.pdf

15. Yu J, et al. Prevalencia de trastornos alimentarios entre estudiantes universitarios en Wuhu, China. Nutr Hosp[internet]. 2015[citado 22/11/2025]; 32(4): 1752-1757. Disponible en: https://doi.org/10.3305/nh.2015.32.4.9187

CC-BY-NC- 4.0