International Journal of Nutrology
(Official Journal of the ABRAN - Brazilian Association of Nutrology)

DOI: 10.54448/ijn25415

ORIGINAL ARTICLE

Assessment of the prevalence of emotional eating among medical students in northwestern são paulo state using the emotional eater questionnaire: a cross-sectional observational study

Lara Gonçalves dos Santos[1,2,*], Ana Elena Souza Cânovas Bottazzo[1,2], Luana Cardoso Laluce[1,2], Bruno Francez Ernesto[1,2], Julia de Campos Preto[1,2], Rodrigo Caritá de Castro e Silva[1,2], Ana Beatriz Fontes Dalkirane[1,2], Mariah Castro Torres[1,2], Ana Luísa Matsumoto Rodrigues[1,2], Durval Ribas Filho[1,2]

[1] FAMECA – Catanduva School of Medicine, Catanduva, Brazil.
[2] UNIFIPA- Centro Universitário Padre Albino/ Padre Albino University Center, Medicine Course, Catanduva, Sao Paulo, Brazil.

*Corresponding author: Lara Gonçalves dos Santos.
UNIFIPA- Centro Universitário Padre Albino/ Padre Albino
University Center, Medicine Course, Catanduva, Sao Paulo, Brazil.
E-mail: laragoncdossantos@gmail.com
DOI: https://doi.org/10.54448/ijn25415
Received: 09-26-2025; Revised: 11-29-2025; Accepted: 12-10-2025; Published: 12-12-2025; IJN-id: 25415

Editor: Dr. Idiberto José Zotarelli-Filho, MSc, Ph.D., Post-Doctoral.

Abstract

Introduction: Eating behavior is influenced by sociocultural, psychological, and emotional factors, which can lead to emotional eating, in which emotions such as anxiety, sadness, and stress direct food choices, generally towards high-calorie and low-nutrient foods. This pattern can result in weight gain, chronic diseases, and mental disorders. University students, especially medical students, are more vulnerable due to academic workload and psychosocial pressures. **Objective:** It was to evaluate the prevalence and implications of emotional eating in medical students in Northwest São Paulo. **Methods:** Observational, analytical, and crosssectional, quantitative study, conducted between 2023 and 2025, with 258 students recruited by randomized convenience sampling. The Emotional Eating Questionnaire (EEQ), validated for Portuguese, was used and applied digitally. The research followed the STROBE checklist, adopted triple blinding, and strategies to minimize biases. Statistical analysis, performed using RStudio 4.3.1, included normality tests (Shapiro-Wilk and Kolmogorov-Smirnov), skewness, kurtosis, and Welch's t-test for comparison between sexes, with $p<0.05$ and 95% CI obtained by traditional and bootstrap BC methods (1000 replications). **Results:** The overall mean score was 13.42 (SD=6.09; median=13.0; range 0–30). Women presented significantly higher means (mean=14.91; SD=5.37) than men (mean=10.28; SD=5.86), $p<0.001$, with a large effect size (d=0.81). The 95% CI of the difference (4.28 to 8.33) confirmed clinical relevance, and the graphical analysis showed a higher female concentration in the categories "emotional eater" and "very emotional eater. There was a significant difference between the sexes, with a higher prevalence in the female group, corroborating previous studies. This disparity may be related to emotional and sociocultural factors, such as aesthetic pressure and greater expression of feelings, while men tend towards emotional avoidance and less seeking of diagnosis. The academic medical environment, with its high demands and frequent compromise of mental health, seems to intensify emotional eating as a coping strategy. **Conclusion:** Emotional eating proved to be highly prevalent among medical students, especially women. Academic stress and emotional vulnerabilities can potentiate this behavior, reinforcing the need for preventive interventions, psychological support, and the promotion of healthy habits to prevent eating disorders and improve quality of life.

Keywords: Eating Behavior. Emotional Eating. Disordered Eating. Emotional Eater Questionnaire.

Introduction

Eating behavior refers to all eating practices and conduct determined by sociocultural influences, which include economic, social, environmental, psychological, behavioral, cognitive, and nutritional factors of an individual or group **[1-3]**, and is not necessarily associated solely with a metabolic state. That said, so-called Disordered Eating Behavior (DEB) is characterized by uncontrolled eating of large or small portions, associated or not with inadequate weight loss methods, and may thus be used as an avoidance strategy or emotional management tool **[4-6]**.

In these cases, the most direct symptomatology includes weight gain, development of mental illnesses, and chronic diseases **[4,7]**. The relationship between stress and eating, in turn, has been extensively investigated in an attempt to establish their connections **[5,8,9]**. However, it is suggested that, although related to periods of both restriction and excessive consumption, the latter constitutes a better indicator of the relationship between eating and stress **[8,9]**. Thus, Emotional Eating, as previously mentioned, leads individuals to express their feelings through preferred foods, which are usually high in calories, palatable, low in nutrients, and high in sugars **[7,8]**.

Previous studies focused on the epidemiological mapping of eating disorders in Latin America point to an increased risk of developing gender-related disorders among university students, women, adolescents between 10 and 19 years of age, and individuals more exposed to cognitive demands **[10]**. That said, the vulnerability of medical students is not only related to age, but also to high workloads and academic requirements, that is, at a psychosocial and occupational level **[11]**. That said, the student becomes more susceptible to: negative affectivity, body dissatisfaction, self-objectification, low self-esteem, negative self-evaluation, and media insinuations **[1-3,7]**, frequently leading to depression and anxiety **[10,11]** and thus initiating eating disorders.

There is a present paradox between the idealization of good health and reality: aiming for well-being at any cost, dietary patterns associated with stress and inappropriate weight loss methods are mistaken for a lifestyle, however, they are responsible for triggering eating disorders, in which there is no total loss of control and quantity of food consumption, but it is accompanied by feelings of anguish, guilt and/or shame **[7]**. In this case, taking into account the role of dietary decisions in mapping the risk of developing chronic, mental, and eating disorders - the challenge of the century according to the World Health Organization (WHO), understanding eating behavior implements the ability to prevent such conditions **[1]**.

Thus, the present study aimed to evaluate the presence of emotional eating among students of a medical college in Northwest São Paulo, identifying and understanding its prevalence in relation to sex, age, and sociocultural factors. Furthermore, the aim is to assess the symptomatology and severity of the issue addressed, along with levels of anxiety, stress, routine, and mental health problems. Even being aware of the heterogeneity of symptoms and that there is no single method of identification considered correct, we seek to identify patterns that result in disordered eating or that make students more susceptible **[12]**.

Methods

Study Design

An analytical cross-sectional observational study with a quantitative approach and writing based on the STROBE checklist (Available at: https://www.strobestatement.org/checklists/; Accessed on: 10/11/2025) was conducted. Data were collected anonymously, and researchers followed blinding principles in the application, analysis, and interpretation of the data.

Ethical Aspects

This study was analyzed and approved by the Research Ethics Committee from UNIFIPA- Padre Albino University Center, Medicine Course, Catanduva, Sao Paulo, Brazil, according to a substantiated opinion number 6.310.617. The Informed Consent Form was not applied, as this study was observational.

Settings and Participants

The research was conducted between 2023 and 2025 in the Medicine course at a college located in the interior of the state of São Paulo, Brazil. Participants were recruited in person at the university, respecting their availability and consent. The sample consisted of medical students regularly enrolled at the institution, without restriction as to the academic semester. Inclusion was defined by randomized convenience, with an open invitation to all eligible students.

Participants who refused or did not complete the questionnaire were excluded from the analysis. The application of the instruments was self-explanatory and supervised by an applicator who did not have access to the final database, ensuring blinding of the applicator and the statistician responsible for the analysis. Thus, the research adopted a triple-blinding model: the participant did not know the detailed objective of the study, the applicator did not have access to the results, and the analyst did not know the identity of the respondents.

Data Analysis

Sample size calculation was previously performed using G*Power software, considering a t-test for independent samples, with two groups, statistical power of 95% ($1-\beta = 0.95$), significance level of 5% ($\alpha = 0.05$) and average effect ($d = 0.5$). The estimated minimum number was 210 participants, but the final sample included 258 students, exceeding the required number and increasing the robustness of the analysis. The dependent variable was the Score_EEQ, representing the total score of the Emotional Eating Questionnaire by Garaulet et al., validated for Portuguese. The main independent variable was self-reported biological sex, classified as "Female" or "Male".

The Classification_EEQ was also used, which categorizes the total score into four levels of emotional eating behavior. The Emotional Eating Questionnaire (EEQ) was applied digitally via Google Forms, containing 10 questions with Likert-type scales. The total score ranged from 0 to 30, being the sum of the individual responses. The responses were entered into a spreadsheet and subsequently analyzed in an RStudio environment (version 4.3.1), with double-checking to avoid typing errors.

Several strategies were adopted to reduce selection bias, information bias, and analysis bias. Recruitment involved different classes and shifts to increase representativeness. The application was supervised, but with autonomy for the participants, reducing response bias. The analysis was conducted by a statistician blind to the identity of the participants and the data collection times, ensuring interpretive neutrality. Continuous variables were treated as continuous quantitative variables in all analyses. The distribution of the Score_EEQ variable was assessed for normality using the Shapiro-Wilk test (S-W(174.5) = 0.97927; $p < 0.001$) and the Kolmogorov-Smirnov test (K-S(174.5) = 0.98969; $p = 0.0639$). Skewness (0.1213) and kurtosis (2.5779) were also assessed, indicating an approximately normal distribution, within acceptable limits for normality (sk < |1|; ku between 1 and 3) **[13,14]**.

Additionally, having seen the discrepancy between S-W and K-S, normality was also checked separately for the biological sex groups, which indicated that both the female group ($W = 0.98484$; $p = 0.05481$) and the male group ($W = 0.97504$; $p = 0.1059$) did not present statistically significant violations of normality ($p > 0.05$). In view of these findings and the evidence that small violations of normality do not compromise the robustness of parametric tests in moderate to large samples **[15,16]**, it was decided to maintain the parametric tests in subsequent analyses **[17,18]**.

To compare the mean scores of the Score_EEQ between the biological sex groups, Welch's t-test for independent samples was used, which is suitable for situations with different variances between the groups. Statistical significance was set at $p < 0.05$. Confidence intervals (95% CI) for the difference between means were also calculated, both using the traditional parametric method and the bootstrap method with BCa (bias-corrected and accelerated) correction, with 1000 replications. The use of the bootstrap CI aimed to increase inferential robustness even in the presence of possible deviations from normality. There were no missing data in the final dataset, and no imputations were necessary. Statistical analysis was performed using RStudio software (version 4.3.1).

Results

The sample consisted of 258 participants, with a mean score on the Emotional Eating Questionnaire (EEQ) of 13.42 (SD = 6.09; SE = 0.38). The median score was 13.0, with values ranging from 0 to 30 (range = 30). The distribution showed slight positive skewness (Sk = 0.12) and negative kurtosis (Ku = -0.44), suggesting an approximately symmetrical and mesokurtic distribution (Table 1).

In order to investigate possible differences in the mean emotional eating scores between biological sexes, a Welch t-test was conducted for comparisons between two groups **[19,20]**. The results demonstrated that the mean scores on the EEQ were significantly higher in the female group (M = 14.91; SD = 5.37) compared to the male group (M = 10.28; SD = 5.86) ($t(174,5) = 6.29$; $p < 0.001$), according to Figure 1. The effect size of the difference was large (Cohen's $d = 0.81$) **[21]**. The 95% confidence interval for the difference in means, estimated via the classical method, was 4.28 to 8.33, suggesting a consistent and clinically relevant difference in emotional eating behavior between biological sexes **[17,22]** (Table 2).

Table 1. Results of the test of differences in emotional eating levels between men and women.

Variables		Scores		t-test (Bootstrapping sample)					
		Mean	SD	T	Gl	pvalue	Mean difference	CI 95%	
								Lower limit	Upper limit
Score_EEQ	Female	14.91	5.86						
	Male	10.28	5.37	6.29	174.5	<0.001	4.63	4.28	8.33

*t (Welch): Welch's t-test statistic; df: adjusted degrees of freedom; p-value: significance level; CI of Mean Difference (95%): confidence interval corrected for bias and acceleration based on 1000 bootstrap replications. Source: Own Authorship.

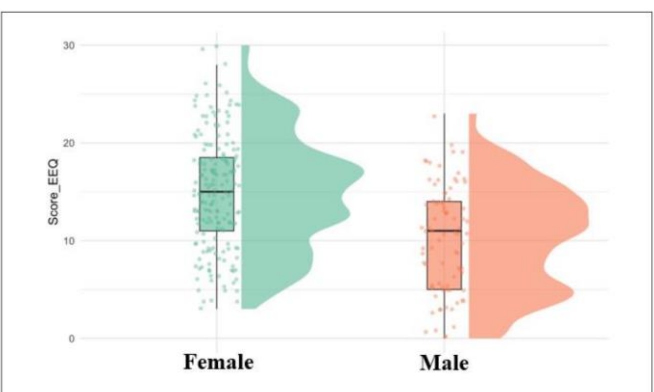

Figure 1. Distribution of Score_EEQ by Biological Sex (Raincloud Plot). Source: Own Authorship.
Legend: Integrated visualization of multiple layers — mean, density (ridgeline), boxplot, and individual data — of the Emotional Eating Score (Score_EEQ), segmented by biological sex. This representation highlights the trend of higher scores in the female group, with a greater concentration of participants above the median compared to the male group.

Table 2. Mean Score_EEQ by Biological Sex and EEQ Classification.

Biological Sex	EEQ Classification	Mean Score_EEQ	N
Female	Non-emotional eater	4.38	8
	Unemotional eater	7.97	35
	Emotional eater	15.40	100
	Highly emotional eater	23.70	32
		Total	**175**
Male	Non-emotional eater	3.36	22
	Unemotional eater	8.06	16
	Emotional eater	14.20	44
	Highly emotional eater	23.00	1
		Total	**83**

Source: Own Authorship.

Discussion

This study identified a statistically significant difference between the sexes in the total score of the Emotional Eating Questionnaire (EEQ), with female averages being significantly higher. Other articles point to this discrepancy between the sexes, which is visually confirmed in Graph 1 (Raincloud Plot), where a shift of the female curve to the right is observed, in addition to a greater dispersion of scores, suggesting greater variability in emotional eating behavior among women. In a study conducted by Saccaro et al. (2023) **[23]**, it was observed that 75.9% of the women evaluated presented emotional eating behavior, compared to 44% of the men, with a statistically significant difference ($\chi^2 = 9.07$; $p = 0.003$). These findings reinforce what was observed in our sample, in which, in addition to the higher averages, the female group was mostly concentrated in the categories of "emotional eater" and "very emotional eater," as detailed in Table 2.

Another relevant point for understanding this gender difference is related to emotional regulation, both positive and negative, which can evolve into future eating disorders and even eating disorders **[24]**. Vuillier et al. (2022) **[25]**, when analyzing clinical profiles of patients with these disorders, found that men and women have distinct difficulties in dealing with emotions. While men tend to show more impulsivity and emotional avoidance, women showed a greater association between difficulties in dealing with emotionally challenging situations and compulsive or emotional eating behaviors. In this way, the individual seeks in food a way to alleviate these symptoms and have a momentary feeling of peace, since the goal is to feel good and escape these undesirable feelings, food becomes an escape valve. This suggests that food can play an emotional compensation role in the face of affective states, a mechanism that can be further activated in contexts of high emotional demand, such as that experienced during medical school **[26]**.

In addition, from a sociocultural point of view, women are historically more encouraged to meet expectations related to the body, the ideal of imposed standardization, and to express their feelings more, which may also make them more vulnerable to responding emotionally through food. At the other sociocultural extreme, men are expected not to worry about such demands, diets, or eating disorders. This belief corroborates the inadequate diagnosis and treatment of men **[27]**. This hypothesis is exemplified by analyzing the structure of Graph 1, in which there are multiple peaks of density in the female group, suggesting the existence of distinct behavioral subgroups. Unlike the male group, which presents fewer plural behaviors, something that could be better explored in future qualitative or stratified analyses.

When analyzing the data from our sample, it

becomes clear that the environment and demands of medical training play a central role in explaining the high scores of emotional eating observed. A 2023 Brazilian study compared the quality of life and mental health between medical students and those in other courses. The results indicated that medical students showed a significant decline in the physical and psychological domains as they progressed through the course, with a high prevalence of feelings of anxiety, depression, and use of substances such as antidepressants and "smart drugs" (21.4% and 11.2%, respectively) **[28]**. This context of weakened mental health occurs in parallel with what we observed: a higher incidence of emotional eating, probably as an escape to cope with the intense stress experienced.

A study in Brazil identified that, even at the beginning of the course, more than 55% of medical students showed signs of Minor Mental Disorders (MMD), with a generalized decline in quality of life, including the psychological, physical, social, and environmental spheres **[29]**. This scenario reinforces the idea that vulnerability to emotional regulation, and consequently to emotional eating, is already present from the early stages of undergraduate studies, and can be accentuated by cumulative pressures in the following years, signaling the need for more in-depth studies on the subject.

Conclusion

It was concluded that the prevalence of emotional eating is higher in women than in men at the Northwest Paulista Medical School, also because women showed greater variability in emotional eating behavior. This difference largely stems from the sociocultural context in which women are subjected to greater aesthetic pressure, expression of feelings, performance, and vulnerability, which places them in more behavioral subgroups than men. Furthermore, the impact of the academic environment on students' mental health is evident, making them more prone to emotional eating as a way to cope with the pressures, stress, and intense demands imposed by university life. Therefore, a thorough understanding of the factors influencing emotional eating in the studied populations is crucial for the development of prevention strategies and early recognition of dysfunctional eating patterns. These strategies may include psychological support programs, encouragement of healthy lifestyle habits, and promotion of emotional education to minimize negative impacts. It is important that higher education institutions recognize these challenges and develop policies that promote the overall well-being of students throughout their education, fostering a harmonious and beneficial environment. Finally, future studies are needed to better understand the different profiles of emotional eating behavior and to guide more effective interventions.

CRediT

Author contributions: **Conceptualization-** Lara Gonçalves dos Santos, Ana Elena Souza Cânovas Bottazzo, Luana Cardoso Laluce, Bruno Francez Ernesto, Julia de Campos Preto, Rodrigo Caritá de Castro e Silva, Ana Beatriz Fontes Dalkirane, Mariah Castro Torres, Ana Luísa Matsumoto Rodrigues, Durval Ribas Filho; **Data curation-** Lara Gonçalves dos Santos, Ana Elena Souza Cânovas Bottazzo, Durval Ribas Filho; **Formal Analysis-** Lara Gonçalves dos Santos, Durval Ribas Filho; **Investigation-** Lara Gonçalves dos Santos, Ana Elena Souza Cânovas Bottazzo, Luana Cardoso Laluce, Bruno Francez Ernesto, Julia de Campos Preto, Rodrigo Caritá de Castro e Silva, Ana Beatriz Fontes Dalkirane, Mariah Castro Torres, Ana Luísa Matsumoto Rodrigues; **Methodology-** Ana Elena Souza Cânovas Bottazzo, Luana Cardoso Laluce, Bruno Francez Ernesto, Julia de Campos Preto, Rodrigo Caritá de Castro e Silva, Ana Beatriz Fontes Dalkirane, Mariah Castro Torres, Ana Luísa Matsumoto Rodrigues; **Project administration-** Lara Gonçalves dos Santos; **Supervision -** Durval Ribas Filho; **Writing - original draft -** Lara Gonçalves dos Santos, Ana Elena Souza Cânovas Bottazzo, Luana Cardoso Laluce, Bruno Francez Ernesto, Julia de Campos Preto, Rodrigo Caritá de Castro e Silva, Ana Beatriz Fontes Dalkirane, Mariah Castro Torres, Ana Luísa Matsumoto Rodrigues, Durval Ribas Filho; **Writing-review & editing-** Lara Gonçalves dos Santos, Ana Elena Souza Cânovas Bottazzo, Luana Cardoso Laluce, Bruno Francez Ernesto, Julia de Campos Preto, Rodrigo Caritá de Castro e Silva, Ana Beatriz Fontes Dalkirane, Mariah Castro Torres, Ana Luísa Matsumoto Rodrigues, Durval Ribas Filho.

Acknowledgment

Not applicable.

Ethical Approval

This study was analyzed and approved by the Research Ethics Committee from UNIFIPA- Padre Albino University Center, Medicine Course, Catanduva, Sao Paulo, Brazil, according to a substantiated opinion number 6.310.617. The Informed Consent Form was not applied, as this study was observational.

Informed Consent

Not applicable.

Funding

Not applicable.

Data Sharing Statement

No additional data are available.

Conflict of Interest

The authors declare no conflict of interest.

Similarity Check

It was applied by Ithenticate@.

Application of Artificial Intelligence (AI)

Not applicable.

Peer Review Process

It was performed.

About The License©

The author(s) 2025. The text of this article is open access and licensed under a Creative Commons Attribution 4.0 International License.

References

1. Souza D, Vaz S, Bennemann RM. Eating Behavior and Eating Habits: A Review. 2014;20(1):108–12.
2. Wadenphul De Moraes R. Determinants and Construction of Eating Behavior: A Narrative Literature Review. 2014.
3. Carvalho PHB de, Filgueiras JF, Neves CM, Coelho FD, Ferreira MEC. Body checking, inadequate eating attitudes, and body image dissatisfaction among young university students. J Bras Psiquiatr. June 2013;62(2):108–14.
4. Azevedo AP de, Santos CC dos, Fonseca DC da. Binge eating disorder. Archives of Clinical Psychiatry (São Paulo). 2004;31(4):170–2.
5. Dakanalis A, Mentzelou M, Papadopoulou SK, Papandreou D, Spanoudaki M, Vasios GK, et al. The Association of Emotional Eating with Overweight/Obesity, Depression, Anxiety/Stress, and Dietary Patterns: A Review of the Current Clinical Evidence. Nutrients. 26 de fevereiro de 2023;15(5):1173.
6. Macht M. How emotions affect eating: A five-way model. Appetite. janeiro de 2008;50(1):1–11.
7. Fairburn C, Brownell K. Eating Disorders and Obesity: A Comprehensive Handbook. 2002.
8. Amoako M, Amoah-Agyei F, Du C, Fenton JI, Tucker RM. Emotional Eating among Ghanaian University Students: Associations with Physical and Mental Health Measures. Nutrients. 22 de março de 2023;15(6):1526.
9. Wallis DJ, Hetherington MM. Stress and eating: the effects of ego-threat and cognitive demand on food intake in restrained and emotional eaters. Appetite. agosto de 2004;43(1):39–46.
10. de Matos AP, Rodrigues PRM, Fonseca LB, Ferreira MG, Muraro AP. Prevalence of disordered eating behaviors and associated factors in Brazilian university students. Nutr Health. 9 de junho de 2021;27(2):231–41.
11. Alhaj OA, Fekih-Romdhane F, Sweidan DH, Saif Z, Khudhair MF, Ghazzawi H, et al. The prevalence and risk factors of screen-based disordered eating among university students: a global systematic review, meta-analysis, and meta-regression. Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity. 4 de agosto de 2022;27(8):3215–43.
12. Natacci LC, Ferreira Júnior M. The three factor eating questionnaire - R21: tradução para o português e aplicação em mulheres brasileiras. Revista de Nutrição. junho de 2011;24(3):383–94.
13. George D, Mallery P. IBM SPSS Statistics 26 Step by Step: A Simple Guide and Reference. 16th Edition. New York: Routledge; 2019.
14. Hair JF, Black WC, Babin BJ, Anderson RE. MULTIVARIATE DATA ANALYSIS [Internet]. 18th Edition. 2019. Disponível em: www.cengage.com/highered
15. Ghasemi A, Zahediasl S. Normality Tests for Statistical Analysis: A Guide for Non-Statisticians. Int J Endocrinol Metab. 1o de dezembro de 2012;10(2):486–9.
16. Blanca M, Alarcón R, Arnau J, Bono R, Bendayan R. Non-normal data: Is ANOVA still a valid option? Psicothema. 1o de novembro de 2017;4(29):552–7.
17. DiCiccio TJ, Efron B. Bootstrap confidence intervals. Statistical Science. 1o de setembro de 1996;11(3).
18. Chernick MR. Bootstrap Methods: A Guide for Practitioners and Researchers Second Edition. 2008.
19. Ruxton GD. The unequal variance t-test is an underused alternative to Student's t-test and the Mann–Whitney U test. Behavioral Ecology. 1o de julho de 2006;17(4):688–90.
20. Zimmerman DW. A note on preliminary tests of equality of variances. British Journal of Mathematical and Statistical Psychology. 16 de

maio de 2004;57(1):173–81.

21. Cohen J. Statistical Power Analysis for the Behavioral Sciences. 2th Edition. Routledge; 2013.

22. Efron B, Tibshirani RJ. An Introduction to the Bootstrap. Chapman and Hall/CRC; 1994.

23. Saccaro LF, Rutigliano G, Landi P, Spera M, Kraslavski A, Zappa MA, et al. Emotional Regulation Underlies Gender Differences in Pathological Eating Behavior Styles of Bariatric Surgery Candidates. Women. 3 de abril de 2023;3(2):189–99.

24. Costa DG, Carleto CT, Santos VS, Haas VJ, Gonçalves RMD de A, Pedrosa LAK. Quality of life and eating attitudes of health care students. Rev Bras Enferm. 2018;71(suppl 4):1642–9.

25. Vuillier L, Joseph J, Greville-Harris M, May L, Somerville MP, Harrison A, et al. What about males? Exploring sex differences in the relationship between emotion difficulties and eating disorders. J Eat Disord. 13 de dezembro de 2022;10(1):193.

26. Coêlho B. Comer emocional, regulação emocional e eventos stressores: um estudo EMA. Universidade do Minho; 2022.

27. Werneck G de P, De Oliveira DR. Autoestima e Estereótipos do Comer Emocional. Revista Psicologia e Saúde. 17 de novembro de 2021;117–30.

28. Silveira de Resende M, Santos IM, Moura EC de, de Almeida Pedro R, Gobbo M. Impact of medical school on quality of life and mental health in Brazil: a cross-sectional comparative study. BMJ Open. 4 de junho de 2025;15(6):e097917.

29. dos Santos de Brito L, Pereira TN, dos Santos ER, de Barros TG, Martinez WD, dos Santos LL, et al. Impact of students assistance policies on quality of life and mental health. Front Psychol. 14 de novembro de 2023;14.

https://zotarellifilhoscientificworks.com/