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Risk of eating disorders and social desirability among higher education students. Comparison of nutrition students with other courses

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Risco de perturbações do comportamento alimentar e desejabilidade social em estudantes do ensino superior. Comparação de estudantes de nutrição com outros cursos

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Abstract

Introduction The transition to college is a period of higher risk for the development of eating disorders, with nutrition science students representing a group with particular vulnerability. When assessing the occurrence of eating disorders, we should consider potential sources of bias, including social desirability.

Objectives To compare the risk of eating disorders between students of nutrition/dietetics and other courses and to analyze the effect of social desirability.

Methodology Data from 475 higher education students (79.8% female) with ages between 18 and 27 years were analyzed. All participants completed a questionnaire assessing the risk of eating disorders (EAT-26) and social desirability.

Results Of the respondents, 11.2% (n = 53) had a high risk for eating disorders, being that proportion higher among females (12,7% *vs.* 5,2%, p = 0.045). No differences were found in the EAT-26 scores between nutrition/dietetics students and students from other areas nor in the risk of eating disorders. Social desirability correlated negatively with the Diet (r = -0,144; p = 0,003) and Bulimia and food preoccupation subscales (r = -0,275; p < 0,001) and showed a positive correlation with Oral self-control (r = 0,151; p = 0,002). The overall EAT-26 score was negatively associated with social desirability (r = -0,115; p = 0,016).

Conclusion In this sample nutrition/dietetics students did not differ from those attending other courses regarding the risk of eating disorders. Social desirability should be considered when analyzing the EAT-26 subscales in assessing risk for eating disorders.

Keywords

risk of eating disorders, EAT-26, social desirability, nutrition students, higher education students

Resumo

Introdução A transição para o ensino superior é um período de risco para o desenvolvimento de perturbações do comportamento alimentar, representando os estudantes de ciências da nutrição um grupo com particular vulnerabilidade. Na avaliação da ocorrência de perturbações alimentares, devemos considerar potenciais fontes de viés, incluindo a desejabilidade social.

Objetivos Comparar o risco de perturbações do comportamento alimentar em estudantes de nutrição/dietética e de outras áreas e analisar o efeito da desejabilidade social.

Metodologia Foram analisados dados de 475 estudantes do ensino superior (79,8% mulheres) com idade entre os 18 e 27 anos. Todos os participantes preencheram um questionário que avaliava o risco de perturbações do comportamento alimentar (EAT-26) e a desejabilidade social.

Resultados Dos inqueridos, 11,2% (n = 53) apresentavam um risco elevado de perturbações do comportamento alimentar, maioritariamente mulheres (12,7% *vs.* 5,2%; $p = 0.045$). Não foram encontradas diferenças na pontuação do EAT-26 entre estudantes de nutrição/dietética e estudantes de outras áreas, nem no risco de distúrbios alimentares. A desejabilidade social correlacionou-se negativamente com as subescalas Dieta ($r = -0,144$; $p = 0,003$) e Bulimia e preocupação com os alimentos ($r = -0,275$; $p < 0,001$) e apresentou uma correlação positiva com o autocontrolo ($r = 0,151$; $p = 0,002$). A pontuação global do EAT-26 foi associada negativamente à desejabilidade social ($r = -0,115$; $p = 0,016$).

Conclusão Nesta amostra, os estudantes de nutrição/dietética não diferiram dos que frequentam outros cursos no que diz respeito ao risco de distúrbios alimentares. A desejabilidade social deve ser considerada quando analisadas as subescalas do EAT-26 na avaliação do risco de perturbações do comportamento alimentar.

Palavras-Chave

risco de perturbação do comportamento alimentar, EAT-26, desejabilidade social, estudantes de nutrição, estudantes do ensino superior

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Introduction

Eating behavior involves quantitative and qualitative aspects associated with the selection and decision of which foods to eat. It can be influenced by several factors, including psychological and sociocultural factors[1]. Eating behavior can be analyzed in two ways[2]: by studying the dimensions of eating behavior, where emotional eating, external eating, binge eating, dietary restriction (flexible control and strict control), and eating self-efficacy have shown clinical relevance[1]; and by the occurrence of eating disorders[3]. Eating disorders are characterized by changes in eating-related behavior that are meant to achieve and maintain a socially accepted body shape[4]. They present a multifactorial etiology, including a diversity of interacting factors[5] that significantly compromise physical health or psychosocial functioning[4].

The transition to higher degree education is a period susceptible to the development of eating disorders since individuals experience psychological, physiological and sociocultural changes that may result in a reorientation of eating behavior[6]. Nutrition science or dietetics students may represent a group with distinct vulnerability to eating disorders[7]. Studies have demonstrated that the risk of eating disorders is higher in nutrition or dietetics students when compared to students from other courses[8, 9]. Some authors have found similar results, but without statistical significance[10, 11]. However, other studies have not found such differences[7, 12-15].

When analyzing the risk factors for the development of eating disorders, studies have found that constant contact with food[10, 16], as well as food-related knowledge, weight control, body composition[7], and the imposition of strict aesthetic standards by students, with the belief that a good appearance can be important for professional success[10, 16], can result in an increased prevalence of eating disorders in these individuals. Also, when analyzing the motivation to follow a course in nutrition or dietetics, some authors suggest there is an influence of personal experiences regarding food and weight control[17-19]. The controversy of results found in the literature may be caused by the number of participants or the use of different methodology and/or instruments. However, assessing the risk of eating disorders in students with frequent contact with

issues related to food and body image, particularly in nutrition science and dietetics students, is important because it may have implications for the professional practice of these future health professionals.

Authors have defended that in psychological research involving self-administered questionnaires, social desirability may compromise their validity as a potential source of bias in the results[3, 20-22]. Social desirability is defined as the individual's tendency to convey a culturally accepted image, according to social norms, to avoid negative opinions towards socially undesirable behaviors[23, 24]. Freitas *et al.* (2017)[3] mention that when assessing the eating behavior of students or professionals in the area of nutrition or dietetics, they may be a group susceptible to the effects of social desirability, since, in addition to being concerned with current aesthetic standards, they may consider that knowledge in the area should be reflected in what is normative eating behavior. Understanding the effect of social desirability on eating behavior may contribute to better accuracy in assessing it[25]. Therefore, this construct should not be neglected in scientific research[3, 20-22].

There are no known studies that have considered social desirability when assessing the risk of eating disorders in nutrition or dietetics students/professionals. However, studies evaluating the relationship of this construct, using the Marlowe-Crowne scale, with the dimensions of eating behavior in higher education students found a negative association between social desirability and emotional, compulsive[3, 22, 25] and external eating[3, 22] and a positive association with food self-efficacy[3, 22]. However, other studies have not found an association between social desirability and emotional[26] and compulsive eating[27].

The aims of this study were to assess the risk of eating disorders in students of nutrition and dietetics and other courses and to analyze the effect of social desirability on the assessment of eating disorders in these students. Another goal is to simultaneously study the effect of sex, BMI, age, and the course's year of attendance on the results.

Methodology

Sample

The study was carried out on a sample of higher education students attending undergraduate or integrated master's degrees at university and polytechnic, public and private higher education institutions with a degree in Nutrition Science, Dietetics or Nutrition and Dietetics, and who agreed to participate in the research.

The inclusion criteria were age between 18 and 27 years and that the student could exercise a free and informed decision to participate in the study. To reduce sociodemographic heterogeneity, students older than 27 years were excluded from the study. Students attending Higher Technical and Professional Courses were also excluded.

A total of 500 students answered the questionnaire, of which 41 (8.2%) were nutrition or dietetics students. Data from 22 participants were not analyzed due to incomplete questionnaire completion, considering as a criterion the lack of response to more than one question per scale of the Eating Attitude Test - 26 (EAT-26)[28] or on the Social Desirability Scale. Two multivariate outliers were also excluded. Therefore, data from 475 students were analyzed.

For comparison purposes, students were divided into three groups according to their areas of study: nutrition and dietetics (n = 38), other human health areas (n = 82) (which include degrees or master's in psychology, medicine, dentistry, nursing, speech therapy, physiotherapy, pharmaceutical sciences, and sports), and other non-health areas (n = 355).

In terms of academic year, responses were obtained from the different academic years with the most responses from first year students (36.0%), followed by second (23.8%) and third (20.8%). The fourth, fifth- and sixth-year students had the fewest responses (10.3%, 6.3% and 2.7% respectively).

Studies have demonstrated differences in eating behavior between the sexes[3, 29], so the analysis was performed separately for the female and male subsamples.

Procedures

This study is part of the project "Eating behavior and risk of eating disorders in higher education students: a national longitudinal study. Comparison of nutrition/dietetics students with other courses" approved by the Ethics Committee of the Faculty of Nutrition Sciences of the University of Porto.

Since this was a nationwide study, the Universities (n = 10) and Polytechnics (n = 7), public and private, that had a degree in Nutrition Science, Dietetics or Nutrition and Dietetics were contacted. In a second phase, the faculties (n = 36), schools (n = 37) and institutes (n = 20) of the respective Universities and Polytechnics were also contacted. Nine faculties, eleven schools, three institutes, four Universities and two Polytechnics agreed to participate in the research.

Data were collected between March and June 2022, through an online questionnaire sent by the institutions to the institutional contact of the students. At the beginning of the questionnaire, the scope and purpose of the research were mentioned, and the informed consent of potential participants was requested.

The questionnaire consisted of a first part that included sociodemographic questions - sex, age, higher education institution, course attended, academic year - and anthropometric questions - self-reported weight and height and desired weight. Prior diagnosis of eating disorders was also questioned. The second part of the questionnaire integrated the instruments for assessing the risk of eating disorders and social desirability.

Measures

The risk of eating disorders was assessed through the Portuguese version of the Eating Attitude Test - 26[30, 31]. It consists of 26 items, organized in three subscales: diet (*e.g.* "I eat diet food") that shows a pathological refusal of high-energy foods and an intense concern with physical shape (13 items; total score range: 0 to 39 points); Bulimia and food preoccupation (*e.g.* "I have eaten uncontrollably and felt like I couldn't stop") that evidence episodes of compulsive food intake followed by vomiting and/or other behaviors to avoid weight gain (6 items; total score range: 0 to 18 points); and Oral self-control

(*e.g.* "I avoid eating when I am hungry") that reflects self-control about food and possible social pressures that stimulate food intake (7 items; total score range: 0 to 21 points). Each item can be answered on a 6-point Likert scale (from "Always" to "Never"), with each response coded with values between 0 and 3. The total score results from the sum of the answers to each item of the questionnaire, which may range between 0 and 78 points, and a total score higher than 20 points indicates a high risk of eating disorders[31].

To assess social desirability, the composit Portuguese version of the Marlowe-Crowne Social Desirability Scale (MC-SDS) [32] validated by Pechorro *et al*. (2012) [33] was used. This scale includes 13 items which should be rated as true or false by the respondent. Some items correspond to sentences that describe socially desirable but uncommon behaviors (scored if answered "true"), while others describe highly common but socially undesirable behaviors (scored when answered "false")[22]. Higher scores reflect a tendency to give more socially desirable responses[32, 33].

BMI was calculated from weight (kg) divided by square height (m^2). The current BMI was calculated from self-reported values, being subsequently corrected by the equation developed by Pinhão, which predicts the actual BMI from the reported BMI, age and sex[34] ("adjusted BMI") and classified according to the criteria of the World Health Organization for adult individuals (> 18 years)[35]. The BMI for desired weight ("desired BMI") was also calculated. The differences between the desired and the current BMI were calculated, being called "wishes to change BMI" ("wishes to change BMI" = current BMI - desired BMI).

Statistical Analysis

Multivariate outliers from the original data were detected after computing the Mahalanobis distance and checking if the p-value for the chi-square distribution with 11 degrees of freedom was $p < 0.001$. The 11 degrees of freedom correspond to the 11 independent variables in the MANOVA and uniANOVA procedure.

For the descriptive analysis, absolute (n) and relative (%) frequencies were calculated to summarize the qualitative variables. The results relative to the

EAT-26 scale and subscales and social desirability are expressed as mean ($\overline{x}$) and standard deviation (sd), as well as age and BMI.

The normality of the distributions of the cardinal variables was assessed using skewness and kurtosis. When the variables had a non-normal distribution, a 2-parameter Box-Cox transformation was applied together with a linear transformation so that the median was not altered. The variables current, adjusted, desired BMI and the wishes to change BMI were transformed with the exponent parameter $\lambda = -1$, for the 4 EAT variables the exponent $\lambda = 0$ was used.

We assessed using independence chi-square the degree of association between having elevated risk of eating disorders with sexes and prior diagnosis of eating disorder. The difference between sexes with regard to mean BMI and mean scores on the EAT-26 scale and subscales and social desirability was performed using the student t-test for independent samples. We assessed the degree of association between the EAT scale and subscales and the variables: academic year, age, adjusted BMI, wishes to change BMI, and social desirability using Pearson's correlation coefficient. In addition, we performed a multivariate analysis (MANOVA and uniANOVA) to study the effects of sex, course, academic year, age, adjusted BMI, wishes to change BMI, and social desirability on the EAT scale and subscales. The effect size was quantified using partial eta squared (η_p^2).

Statistical treatment was performed in IBM SPSS version 27.0 for Windows. P values below 0.05 were considered statistically significant.

Considering a statistical power of 80%, a correlation of 0.143 is likely to be significant among females (n = 379) and a correlation of 0.283 among males (n = 96)[36].

Results

Most of the sample was female (79.8%, n = 379), had a mean age of 21 years (dp = 2.5 years), and 73.7% (n = 350) were classified as having normal weight after BMI adjustment. Of the respondents, 8.4% (n = 40) had a previous diagnosis of eating behavior disorder, with no statistically significant sexes differences observed (9.5% of females *vs.* 4.2% of males; $p = 0.235$). Regarding the risk of eating disorders, 11.2% (n = 53) were at high risk, with this proportion being higher among females (12.7% of females *vs.* 5.2% of males, p = 0.045). Among the respondents with previous diagnosis of eating disorders, 50.0% are at high risk for eating behavior disorders, while among those without previous diagnosis, only 7.0% are at risk ($p < 0.001$).

Table 1 describes and compares BMI, EAT-26 scale and subscales, and social desirability between sexes. With statistical significance, men have higher current, adjusted, desired BMI and lower wishes to change BMI. Women have higher mean scores on the global scale and on the three subscales of the EAT-26 and social desirability when compared to men, although no statistically significant differences were found.

Table 1

BMI, EAT-26 scale and subscales, and social desirability: participants' characteristics and sexes comparison

	Total		Female		Male		*p**
	n	Mean (sd)	n	Mean (sd)	n	Mean (sd)	
Current BMI (kg/m^2)	475	22.5 (4.0)	379	22.3 (4.1)	96	23.2 (4.2)	0.025
Adjusted BMI (kg/m^2)	475	22.8 (4.2)	379	22.6 (4.1)	96	23.6 (4.2)	0.015
Desired BMI (kg/m^2)	474	21.4 (2.3)	378	21.0 (2.0)	96	22.9 (2.7)	< 0.001
Wishes to change BMI (kg/m^2)	474	1.1 (2.8)	378	1.3 (2.8)	96	0.3 (2.7)	< 0.001
EAT-26	475		379		96		
Total Score (score range 0 - 78)		9.3 (9.4)		9.8 (9.9)		7.4 (6.8)	0.084
Diet (score range 0 - 39)		4.6 (6.3)		4.9 (6.6)		3.3 (4.5)	0.089
Bulimia and food preoccupation (score range 0 - 18)		1.9 (2.7)		2.0 (2.8)		1.7 (2.3)	0.730
Oral Self-Control (score range 0 - 21)		2.8 (3.0)		3.0 (3.1)		2.4 (2.4)	0.137
Social Desirability (score range 0 - 13)	438	6.8 (2.5)	356	6.8 (2.4)	82	6.7 (3.0)	0.698

*Comparison between sexes (t-test for independent samples) with the transformed variables of current, adjusted, desired and wishes to change BMI and the four variables of the EAT are used for the analysis.

The means and standard deviation of the untransformed variables are presented.

The correlations between the scale and three subscales of the Eating Attitudes Test - 26 with other variables are presented in table 2. The Diet and Bulimia and food preoccupation subscales were positively correlated with each other and with adjusted and wishes to change BMI. Both subscales showed a negative association with social desirability. In Oral self-control, there was a positive correlation of this subscale with social desirability and a negative correlation with age, adjusted and wishes to change BMI. Regarding the total scale, the EAT-26 was negatively associated with age and social desirability, and positively associated with its subscales and with adjusted and wishes to change BMI.

Table 3 shows the effects of sex, age, course, academic year, BMI and social desirability on the EAT-26 scale and subscales. Only the wishes to change BMI significantly explained the EAT-26 and its three subscales, with a greater effect of this variable on the Diet subscale. The Bulimia and food preoccupation subscale was also explained by social desirability and the Oral self-control subscale by social desirability and age.

Table 2
Correlations between the EAT-26 scale and subscales and academic year, age, adjusted and wishes to change BMI and social desirability

	Bulimia and food preoccupation r*(*p*)	Oral self-control r*(*p*)	EAT-26 r*(*p*)	Academic year r*(*p*)	Age r*(*p*)	Adjusted BMI r*(*p*)	Wishes to change BMI r*(*p*)	Social Desirability r*(*p*)
Diet	0.568 (< 0.001)	0.054 (0.239)	0.809 (< 0.001)	-0.036 (0.432)	-0.004 (0.936)	0.330 (< 0.001)	0.421 (< 0.001)	-0.144 (0.003)
Bulimia and food preoccupation		0.024 (0.599)	0.680 (< 0.001)	-0.024 (0.596)	-0.046 (0.321)	0.216 (< 0.001)	0.272 (< 0.001)	-0.275 (< 0.001)
Oral Self-Control			0.482 (< 0.001)	-0.018 (0.700)	-0.147 (0.001)	-0.301 (< 0.001)	-0.273 (< 0.001)	0.151 (0.002)
EAT-26				-0.043 (0.353)	-0.092 (0.045)	0.135 (0.003)	0.217 (< 0.001)	-0.115 (0.016)
Academic year					0.471(< 0.001)	0.053 (0.249)	0.071 (0.124)	-0.016 (0.739)
Age						0.152 (0.001)	0.128 (0.005)	-0.025 (0.606)
Adjusted BMI							0.732 (< 0.001)	-0.151 (0.002)
Wishes to change BMI								-0.167 (< 0.001)

*r = Pearson correlation coefficient.
Correlation sample size n = 475, except with the variables wishes to change BMI (n = 474) and social desirability (n = 438) and both (n = 437).
The transformed variables of adjusted and wishes to change BMI and the four variables of the EAT are used for the analysis.

Table 3
Effect of the studied sex, age, course, academic year, BMI and social desirability on the scale and subscales of the EAT-26

		n	Diet*	*p***	*ηp²***	Bulimia and food preoccupation*	*p***	*ηp²***	Oral Self-Control*	*p***	*ηp²***	EAT-26*	*p***	*ηp²***
Sex	Female	379	2.290	0.912	< 0.001	1.167	0.301	0.002	1.983	0.189	0.004	6.483	0.857	< 0.001
	Male	96	1.730			1.109			1.598			5.432		
Age		475	-0.004	0.225	0.003	-0.046	0.081	0.007	-0.147	0.022	0.012	-0.092	0.200	0.013
Course		475	2.177	0.498	0.006	1.156	0.498	0.006	1.906	0.498	0.006	6.270	0.369	0.005
	Nutrition and Dietetics	38	2.583	0.432	0.001	1.074	0.974	< 0.001	1.719	0.250	0.003	6.312	0.833	< 0.001
	Other areas of human health	82	1.573	0.154	0.005	0.942	0.218	0.004	1.824	0.442	0.001	5.256	0.158	0.005
	Other non-health related areas ***	355	2.273			1.214			1.944			6.500		
Academic Year		475	-0.036	0.754	< 0.001	-0.024	0.912	< 0.001	-0.018	0.225	0.003	-0.043	0.774	< 0.001
Adjusted BMI		475	0.330	0.138	0.005	0.216	0.682	< 0.001	-0.301	0.087	0.007	0.135	0.912	< 0.001
Wishes to change BMI		474	0.421	< 0.001	0.051	0.272	0.002	0.023	-0.273	0.016	0.013	0.217	0.007	0.017
Social Desirability		438	-0.144	0.089	0.007	-0.275	< 0.001	0.055	0.151	0.032	0.008	-0.115	0.089	0.007

* The values expressed correspond to the mean values for sex and course, and the r value (Pearson correlation) is used for the other variables.
**Multivariate ANalysis Of VAriance (MANOVA, except for the variable EAT-26 where uniANOVA is used).
***Reference group
The transformed variables of adjusted and wishes to change BMI and the four variables of the EAT are used for the analysis.

Discussion

The main aim of this study was to assess the risk of eating disorders in students of nutrition and dietetics and other areas and to analyze the effect of social desirability on the assessment of eating disorders in these students. Studies show differences in eating behavior between sexes[3, 29], so a first analysis was to study and understand these differences.

Our study found no statistically significant differences between sexes in the mean score of the EAT-26 and its subscalesa result supported by another study[37]. However, in the study by Yu *et al*. (2018)[38] women scored significantly higher than men on two subscales of the EAT-26 (Diet and Bulimia and food preoccupation), and in another work this difference was found in the mean score of the EAT-26[29]. Concerning social desirability, no statistically significant differences between sexes were found in our study, other authors, who used the 33-item Marlowe-Crowne Social Desirability Scale, support this result[22, 25]. However, Freitas *et al*. (2017)[3] found that female students had higher levels of social desirability compared to males (14.8 *vs*. 17.3; $p = 0.028$).

In relation to BMI, women had a lower current and desired BMI than men. Similar results were found in another study[39]. It is also worth mentioning that, as in the study by Poínhos *et al*. (2013)[39], females desire to lose more BMI than males, which according to the author may be explained by sex stereotypes.

Of our participants, 11.2% were at high risk (> 20 points) for eating disorders, and this proportion was higher among females (12.7% *vs*. 5.2%). With a different cut-off point (risk ≥ 20 points), Yu *et al*. (2018)[38] found a higher prevalence of eating disorder symptoms among females. On the other hand, another study did not find these differences (19.4% *vs*. 19.3%, $p > 0.05$)[29]. Yu & Tan (2016)[15] and Meulemans *et al*. (2014)[40] found in their work, a high risk of eating behavior disorders of 10% and 8%, respectively, also considering ≥ 20 as cut-off.

Regarding correlations and multivariate analysis, the results showed that the subscales Diet and Bulimia and food preoccupation are positively correlated with each other, with no significant associations with Oral self-control. Berland et al. (1986)[41] in their study found a positive and statistically significant correlation between the Diet subscale and the subscales Bulimia and food preoccupation and

Oral self-control, while the negative correlation between the subscales Bulimia and food preoccupation and Oral self-control was not statistically significant. According to the author, the questions on the subscales Bulimia and food preoccupation and Oral self-control are orthogonal and seem to be referring to unrelated issues. However, a recent study finds in their results statistically significant correlations between the three subscales of the Eat-26[42]. Relative to the course, no main effect of the course was found for the EAT-26 scale or subscales. Yu & Tan (2016)[15], with a division of students by courses similar to our study, found no significant differences between the three academic major categories on the EAT-26 neither on the three behavior dimensions of the scale, supporting our results. However, a study conducted only with first-year female students in Nutrition, Physical Education, Advertising and Publicity, and Business Administration, between ages 18 and 22, found statistically significant differences, with health area students showing higher scores when compared to students from other areas (16.6 *vs.* 12.5; $p = 0.006$). Additionally, the analysis between the courses studied showed that students from Nutrition had the highest scores on this instrument, and these values were statistically different from the values found for Advertising (18.4 vs. 12.7; $p < 0.05$) and Administration courses (18.4 vs. 12.3; $p < 0.05$), but not for Physical Education (18.4 vs. 15.3; $p > 0.05$)[9]. A study conducted with female students of Nutrition, Nursing and Biological Sciences did not find statistically significant differences among courses. However, the results suggest a higher probability of female nutrition students to develop eating disorders (considering ≥ 21 as cut-off)[11]. Another study supports these results and found statistical significance among the course and the EAT-26 score, showing that students from the Nutrition course are more exposed to the risk of developing eating disorders than those from other health courses[37]. The controversy of results found in the literature may result from the criteria used by the studies, such as age range, courses and academic years included. The grouping of students according to courses, as well as the different course sizes may also contribute to the discrepancy of results. In addition, the literature presents different cut-off points in the EAT-26 to define the risk of eating disorders.

Another goal of our study was to simultaneously analyze the effect of the year of course attendance on the results. In our study, no significant correlations were found between the academic year and the EAT-26 variables. Our results aren't in line with those from a study conducted with health area students, where the authors found a weak and positive correlation, with statistically significant, between the academic year and the EAT-26, indicating that the higher the academic year, the more inadequate is the eating behavior[37]. As previously mentioned, authors argue that the constant contact with food[10, 16], as well as, the knowledge related to food, weight control and body composition[7] and the belief that a good appearance may be important for professional success[10, 16], may lead to increased prevalence of eating disorders in these individuals. In addition, some authors suggest that there is an influence of personal experiences regarding eating and weight control[17-19] when selecting a nutrition or dietetics course. Therefore, considering these effects there would be a tendency for a higher risk of eating disorders in students in the nutrition course. Santos (2008)[11] to estimate the role of information in maintaining risk eating behaviors in nutrition students, applied the EAT-26 in a nutrition class (n = 42) in the first and last semester of the undergraduate course. With a 26.2% decrease in the study population, the number of individuals at risk for eating behavior disorders (score ≥ 21), was not statistically significant (23.8% *vs*. 19.4%; p = 0.778). The author mentions that increased information does not guarantee change in risky eating behaviors. Thus, longitudinal studies that assess the risk of eating disorders in students of nutrition and dietetic sciences and clarify these issues are important, since this may have implications for the professional practice of these future health professionals.

The adjusted BMI and the wishes to change BMI correlated positively with each other and with the EAT-26 Diet and Bulimia and food preoccupation subscales and subscales, and negatively with Oral self-control. However, only the wishes to change BMI significantly explained the EAT-26 and its three subscales, with a greater effect of this variable on the Diet subscale. A peculiarity in the results is found in the correlation between the variables wishes to change BMI and the Oral self-control subscale, in which they show a negative correlation. This result

shows that the higher the BMI students wish to lose, the lower their Oral self-control related to food and possible social pressures that encourage food intake.
Negative correlations were found between social desirability and the adjusted BMI, wishes to change BMI, the EAT-26, and the Diet and Bulimia and food preoccupation subscales. However, multivariate analysis only confirmed the negative correlations between social desirability and Bulimia and food preoccupation. Regarding the Oral self-control subscale, there was a positive association between social desirability and Oral self-control, confirmed by multivariate analysis. This way, our study shows that the higher the social desirability of higher education students the higher their Oral self-control in food intake. Given the lack of studies in the literature that help us understand these results, we hypothesize an interpretation. The fact that Oral self-control relates positively to social desirability among higher education students may result from the way Oral self-control is perceived. Individuals may exhibit positive thinking of Oral self-control while aspects assessed by the other subscales will tend to be more consistently perceived as negative. In addition, the questions on the oral self-control subscale mainly revolve around the subjects' perception of other people's reactions and the subject's opinion of how they actually eat food[41]. It should be noted that no studies have been found that relate social desirability to the risk of eating disorders which leads to the need for further studies following similar methodology.
This study has some limitations, namely, the sample sizes of the distinct course areas and the small number of male nutrition student participants.
Despite these limitations, the absence of studies evaluating the effect of social desirability on the risk assessment of eating disorders in nutrition and dietetics students and in other areas evidences the important contribution of the present study to the area of knowledge. It is worth noting that the small number of male nutrition students is in line with their proportion in this course.
Future research could address these limitations and study the influence of social desirability on risk assessment for eating behavior disorders to understand the need for its assessment. Furthermore, understanding the impact of increased knowledge, through the analysis of academic year, on the risk of eating disorders is important, as it may have implications for the professional practice of these

future health professionals, and it may be necessary to create interventions among nutrition students aimed at reducing the possible effects.

Conclusion

Our study found no differences in the risk of eating disorders between nutrition and dietetics students and students from other courses, neither between the academic year. Social desirability showed a negative correlation with the Bulimia and food preoccupation subscale and a positive correlation with Oral self-control. Therefore, it should be considered when analyzing the EAT-26 subscales to assess the risk of eating disorders.

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