Social representations of anorexia among university students and risk factors: possible relations

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Abstract

Anorexia is a serious disease, characterized by a distorted body image that leads to extreme behavior. It mainly affects young women. This study sought to identify the social representations of anorexia and the presence of risk factors for its development among female students from different university courses. It sought to establish relationships between anorexia risk factors, body mass index, study area, body satisfaction and social representations. A questionnaire composed by the EAT-26, scale of body silhouettes and open questions about what students knew about anorexia was applied. The data were subjected to statistical and lexicographic analysis. 29% of the students presented risk factors for anorexia. Increased BMI and body dissatisfaction are related to the presence of risk factors. Social representations of anorexia demonstrate the characterization of the disease, very close to scientific knowledge.

Keywords: Social representations; Anorexia nervosa; BMI; Body satisfaction.

Representações sociais da anorexia entre estudantes universitárias e fatores de risco: possíveis relações

Resumo

A anorexia é uma doença grave, caracterizada por uma imagem corporal distorcida que leva a comportamentos extremos. Acomete principalmente jovens mulheres. Este estudo procurou identificar as representações sociais da anorexia e a presença de fator de risco para seu desenvolvimento entre 100 estudantes do sexo feminino de diferentes cursos superiores. Buscou estabelecer relações e entre fator de risco para anorexia, índice de massa corporal, curso superior e satisfação corporal e representações sociais. Foi aplicado um questionário composto pelo EAT-26, escala de silhuetas corporais e questões abertas sobre o que as estudantes sabiam sobre a anorexia. Os dados foram alvo de análises estatísticas e lexicográficas. 29% das estudantes apresentaram fator de risco para anorexia. IMC aumentado e insatisfação corporal estão relacionados à presença de fator de risco. As representações sociais da anorexia demonstram a caracterização da doença, muito próxima do conhecimento científico.

Palavras-chave: Representações sociais; Anorexia nervosa; IMC; Satisfação corporal.

Representaciones sociales de la anorexia entre estudiantes universitarios y factores de riesgo posibles relaciones

Resumen

Anorexia es una enfermedad grave, caracterizada por una imagen distorsionada del cuerpo que conduce a un comportamiento extremo. Afecta principalmente las mujeres jóvenes. Este estudio busco identificar las representaciones sociales de la anorexia y la presencia de factores de riesgo para su desarrollo entre 100 mujeres estudiantes de diferentes carreras universitarias. Y buscado establecer relaciones entre los factores de riesgo para la anorexia, el índice de masa corporal, área de estudio, la satisfacción del cuerpo y las representaciones sociales. Se aplicó el cuestionario compuesto de la escala EAT-26, de siluetas corporales y preguntas abiertas sobre lo que los estudiantes sabían sobre la anorexia. los datos fueron sometidos a análisis estadística y lexicográfica. 29% de los estudiantes presenta factores de riesgo para la anorexia. El aumento de IMC y la insatisfacción corporal se relaciona con la presencia de factores de riesgo. Representaciones sociales de la anorexia demuestra la caracterización de la enfermedad, muy cerca de los conocimientos científicos.

Palabras clave: Representaciones sociales; Anorexia nerviosa; IMC; Satisfacción corporal.

The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (APA, 2014) describes Anorexia Nervosa (AN) as an eating disorder. It is a disease characterized by low caloric intake that leads to a substantial weight loss, and a distorted body perception. It produces excessive physical and psychological stress that affects mostly adolescents and young adult female (Leonidas & Santos, 2012).

This situation seems to be worsening by social order issues, due to a today's very striking cult of the body and produces the beauty standards elects thinness as a cultural pattern. The incidence of disease, in the past, was restricted to a small portion of society, for example the models. However, nowadays, many women suffer the social pressure to conform to the beauty standard, often this pressure is found inside the schools and universities, and strongly exacerbated by the media. The great problem of this situation is due to the standard imposed as an ideal, that does not respect the different female biotypes, because the body pattern becomes a standard impossible or inappropriate for most women, which can lead to physical and psychological distress and may result in the development of body dysmorphic disorders (Goetz & Camargo, 2014).

The clinical condition of AN is characterized by a distortion in the way the person sees his own body image, because the individual is underweight and believes he is overweight. This distortion establishes relationship with various causes of biological, sociocultural and psychological nature, and young people start a diet to lose weight and gradually develop an excessive preoccupation with weight loss. The mortality rate of patients with AN is around 6 e 15%, its one of the largest among psychiatric disorders, being medical complications and suicide the leading causes (Almeida, 2012; Corrêa, Pimentel, & Cortez, 2012; Santiago, Oliveira, Bulhões, & Simões, 2012).

Several factors seem to be related to the emergence of the disease. In addition to the social pressure that forces young people to adopt strict diets in seeking a perfect body some other factors have been related to it. Some studies have sought to relate profession or area of activity, body mass index (BMI) and body satisfaction with the presence of risk factors for the development of AN. However, no data were found in the literature to confirm the existence of a statistically significant relationship between variables. (Alvarenga, Scagliusi, & Philippi, 2011; Guimarães, Machado, França, & Calado, 2014; Souza, Souza, Hirai, Luciano, & Souza, 2011).

In a survey conducted with 352 students of Psychology, Nutrition, Nursing and Occupational Therapy, Souza et al. (2011) identified a greater presence of a risk factor for eating disorders among nutrition students compared to students from other identified courses. The same authors did not identify any association between the BMI of the participants and the presence or absence of risk factors. On the other hand, Fiates and Salles (2001), comparing the results of the Eating Attitudes Test (EAT-26) 114 academic nutrition with 107 academics from other courses, identified the lack of statistical association, although the risk factor for AN development among students of nutrition was higher than students from other courses (nutrition 25.43%, 18.69% other courses). Similar results were found by Gonçalves, Barbosa, Rosa, and Rodrigues (2008) conducting a study about the presence of risk factors for AN among 78 students of Physical Education and 149 students of Nutrition. The authors identified the presence of risk factors for AN in 14.1% of nutrition students and 10.3% for physical education students. The results of these studies raise doubts about a possible increase in the risk factors for AN among students of Nutrition compared to other university students.

Alvarenga et al. (2011) conducted a study in five regions of Brazil with 2,483 university female students and they found out that the risk for eating disorders ranged between 23.7% and 30.1%. The authors did not identify any association between the risk for eating disorders (ED) and other variables such as age, academic course or BMI. Also Guimarães et al. (2014), conducted a study with 30 ballet dancers, and identified no statistically significant relationship between the presence of risk factors for ED and body dissatisfaction. Among 189 medical students, statistically significant relationship between body satisfaction and risk for AN was not also found by Bosi, Nogueira, Uchimura, Luiz, and Godoy (2014) which, in turn, identified statistical relationship between BMI and score of EAT.

Hulsmeyer, Marcon, Santana, and Kállas (2011) sought to identify associations between the presence of risk factors for AN and BMI and body satisfaction among 407 adolescents between 14 and 19 years. The authors found out that BMI and body size are not associated with the presence of symptoms of anorexia nervosa, despite the fact that low weight adolescents present more chances of developing such symptoms. The fact that dissatisfaction with body image is a risk factor for the presence of anorexia symptoms was another point noted, because the one does not show satisfaction with his body image is more likely to develop symptoms of TA compared to those who are satisfied with their body image.

In addition to the factors mentioned above, the information that is disseminated by both, the scientific

community and through the wide range of media, may be related to the presence of risk factors for the development of anorexia among young women. Polli and Camargo (2015) emphasized the role of the media in the conception of social representations.

Social Representations (SR) are knowledge built and shared through social discourse. They make up a knowledge that guide behavior, form identities and establish social standards, also serve to justify practices (Abric, 2011; Jodelet, 2001). Their theoretical development comes from the work of Moscovici in 1961, in France, on the shared thinking among Parisians about psychoanalysis. It is a theory of social thought, which seeks to understand and explain how people create and share knowledge in society (Moscovici, 2012).

Based on the Theory of Social Representations (TSR), knowing the SR that young students of university courses related to body theme and courses not related to the body have on the AN and identify possible relationships between these representations and the presence of risk factors for AN, may help in the comprehension of etiology of this disease. In addition to, it can open a horizon for preventive strategies.

When studying the social representations of the body of 10 students aged 13 to 17 in Portugal, Santiago et al. (2012) found out that anorexia was presented in the discourse of the students. This may have been influenced by the presence of a student diagnosed with anorexia among participants. The AN was represented by socio-cultural issues and the students do not recognize the student diagnosed with the disease. Negation of the disease has also been identified by Giacomozzi (2010) who investigated the social representations of anorexia spread in an Orkut community about the subject. The author found out that the young women participating in the community had a social representation of anorexia as a lifestyle; they did not consider it as a disease.

Among health professionals, social representation of AN seems to differ. In a study undertaken with 12 nursing professionals about the social representations of eating disorders, Grando and Rolim (2006) identified a technical-scientific discourse, in which the AN is described, not only in technical terms, but also through the everyday experiences of these professionals. There seems to be significant differences between the way health professionals thinking about anorexia and among young people who compose the main risk group for the development of the disease. This finding reinforces the need to identify the information and the social representations that young students have on the AN.

Considering the difficulties involved in the treatment of AN, and the need to draw up preventive strategies, this study aimed to understand the relationship between the presence of risk factors for AN and some factors such as BMI, body satisfaction, course area and SR about AN. By identifying the SR that students from different undergraduate courses have about AN, and the relationship between such representations and the presence of risk factors for AN, prevention strategies can be adopted focusing on information dissemination.

Method

The sample of this study was composed of 100 students of a private university in the city of Curitiba, PR, Brazil, aged between 17 and 49 years old (M=21.48, SD=5.02). The students attending the courses of Nutrition, Aesthetics, History and Physiotherapy. 25 students from each course answered the instrument of collecting data. The sample of students per course was for convenience, it was not representative of the students in each course at the University, and it was not taking into consideration the period that they were taking. We chose the same number of students in each course to facilitate the comparisons.

The choice of courses considered, at first, the inclusion of Nutrition students due to the divergence found in the literature about the relationship between the course and the presence or absence of risk factors for AN (Fiates & Salles, 2001; Gonçalves, Barbosa, Rosa, & Rodrigues, 2008) The other courses were chosen for convenience and also for presenting a significant number of female students. We chose to carry out the research with female students because literature points out the prevalence of eating disorders among women (Souza et al., 2011).

A self-administered questionnaire composed of three parts was used (A, B and C). Part A refers to personal data (including height and weight). Part B was composed of the EAT-26 (Eating Attitudes Test) that evaluates the propensity of developing eating disorder. This instrument consists of 26 questions divided into three subscales: a) Scale of the Diet; b) Scale bulimia and concern, and c) Oral control range. Each question presents 06 response options, scoring from 0 to 3, depending on the choice: "always" (3 points); "Often" (2 points); and "Sometimes" (1 point). The other responses, "few times", "rarely" and "never", receive no score. Individuals with scores higher or equal to 20 are considered high risk for development of AN (EAT+), individuals with a score lower than 20 are considered low risk (EAT-) (Guimarães et al., 2014). The EAT-26

was validated in Brazil by Bighetti, Santos, Santos, and Ribeiro (2004)

Part C was composed by the silhouettes scale, where the participant chooses the figure number that corresponds to her actual appearance (Perception of Body Image Real – PICR) and also the figure number that approaches her ideal body appearance (Perception Body Image Ideal – CIIP). To evaluate body satisfaction, we subtract from actual body appearance the ideal body appearance, the result number can fluctuate from -8 to +8. If this variation is equal to zero, it indicates that she was satisfied with her appearance and if the variation is different from zero she is unsatisfied. If the difference is positive there is overweight dissatisfaction and if the difference is negative there is dissatisfaction with thinness (Côrtes, Meireles, Friche, Caiaffa, & Xavier, 2013). In addition, the participants answered questions about the information they have about the AN.

To perform the data collection was requested authorization from the director of the college and the coordinators of the respective courses. The data collection were carried out in the classroom with the consent of the professor. To complete 25 participants from each course, some students were approached in the corridor and individually answered the questionnaire. Participants were instructed about the questionnaire and about the voluntary participation. Students who did not want to participate in the research were allowed to leave the room during the filling period, if they wanted. All participants signed a free and informed consent (IC) The application time was about 15 minutes. This project was approved by the Ethics Committee in Research of the Paranaense Hospital of Otorhinolaryngology (CAAE process: 49071515.6.0000.5529).

Data analysis was conducted using SPSS (Statistical Package for Social Sciences) version 16.0. Initially carried out as a descriptive analysis in terms of absolute and relative frequency, average and standard deviation. A relational statistical analysis was performed with data from respondents of different courses to verify possible relations between the presence of risk factors for AN, the college course they attend, BMI and body satisfaction of the participants, obtained through the silhouettes scale. The chi square test and Student t test were used, which intended to compare the statistical differences among the observed frequencies.

Data from the open question about the information that the students had about AN were analyzed with the assistance of software IRaMuTeQ (Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires) (Camargo & Justo, 2013). The software performs a Descending Hierarchical Classification (DHC) that provides a lexical analysis of the text. Lexical classes are generated, characterized by specific vocabulary and segments of text that have common vocabulary. The segments are classified considering their vocabularies (Castro, Koelzer, Camargo, & Bousfield, 2014).

The corpus analysis consisted of 100 responses. Each response is considered segments of text (ST). The responses were between two and three rows on average, so that each Text was considered a Segments of Text (ST). After sorting the contents, an inferential analysis was performed to identify possible relationships between the knowledge and the presence of risk factors for AN.

Results and discussion

From the information we received from the participants about their weight and height we calculated their body mass index (BMI). This review found that 15 (15.3%) of the students were underweight, 59 (60.2%) had average weight, 22 (22.4%) were overweight, and 2 (2%) were considered obese, 2 students did not respond the question. According to the World Health Organization (WHO, 2000) BMI below 18.5 indicates underweight; between 18.5 and 24.9 indicates average weight, above 25 may be considered overweight and over 30 indicates obesity.

Risk factors for anorexia nervosa were analyzed in relation to all the participants and the presence of risk factors were identified in 29% of students. The course with the highest number of students with the presence of risk factor was nutrition (n=11). To investigate the relationship between the presence of risk factors for anorexia nervosa and the university course of the participants was conducted the test Chi Square and the obtained results showed no statistical significance [χ^2=4.31 (3); p=0.25]. The data are shown in **Table 1**.

TABLE 1
Risk factors for course

Course		Risk factor for anorexia		Total
		Yes	No	
Physiotherapy	Occurrence	6	19	25
	%	24	76	100
Esthetic	Occurrence	5	20	25
	%	20	80	100
Nutrition	Occurrence	11	14	25
	%	44	56	100
History	Occurrence	7	18	25
	%	28	72	100
Total	Occurrence	29	71	100
	%	29	71	100

Absence of a statistically significant relationship between higher courses and the presence of a risk factor for AN development were also found in studies by Alvarenga et al. (2011), Fiates and Salles (2001) and Gonçalves et al. (2008). These data suggest that regardless of the option for higher education, women are exposed in a similar manner to contemporary models of thinness that are widespread in society and are equally prone to the presence of risk factors for AN development.

We sought to identify if there were statistically significant differences between the average age of the participants from the different courses, and for this verification a one-way analysis of variance (ANOVA) was performed. From this test it was possible to identify that there are relations between the variables, $[(F (3.96)=3.99, p=0.01]$. Among the participants of the Physiotherapy course, the average age was 21.9 (SD=3.89), participants in the Aesthetics course with average age of 22.75 (SD=3.24), participants in the Nutrition course had an average age of 22.64 (SD=3.34), in the History course the average age was 22.66 (SD=3.45).

Considering that the literature points to a higher probability of AN development in younger women (Bosi et al., 2004; Fiates & Salles, 2001) and that significant differences were identified between the average ages of the participants of different courses in this study, it was possible to identify relationships between the age of the participants and the presence or absence of a risk factor for AN. Student's t-test $[t (98)=1.68; P=0.87]$, which indicated that the average age of respondents who presented risk factors for anorexia (M=21.66, SD=3.07) was similar to those with no risk factors (M=21, 45, SD=5.64). This indicates that there is no statistically significant relationship between the age of the respondents in this study and the presence and absence of risk factors.

In this study it was found that university students with risk factors for anorexia (EAT+) have a BMI higher (M=24.07, SD=3.40) to the university ones that do not have risk factors (EAT-) (M=21.82, SD=3.27) according the results of Student t test $[t (96)=3.07; p<0.001]$. Distinctive of common sense, that relate people with low BMI with a predisposition for the development of AN, this study found out that this assumption may be wrong, because it was found that participants from this study with higher BMI have more presence of risk factors for development of this disorder. Similar results were found by Bosi et al. (2014).

On the other hand, Hulsmeyer et al. (2011) Alvarenga et al. (2011) and Souza et al. (2011) did not identify relationships between BMI and the presence of risk factors for AN. However, the model of analysis performed by the researchers was not explored, requiring further inquiry The difference in results found in this study and the field of literature opens space for further research to confirm the presence or absence of relationship between BMI and risk factors for AN.

The silhouettes scale indicated that 59 participants are dissatisfied with their body image due to overweight, 16 are dissatisfied with their body image due to thinness, 20 are satisfied with their body image, 5 participants did not respond to the test. We sought to identify the existence of relationship between body satisfaction and the presence of risk factors for anorexia, obtained by the EAT-26, for this reason, we performed the test Chi Square. The test showed statistical significance relation to dissatisfaction with body image and the presence of risk factors for anorexia among students $[\chi^2(2)=6.14; p=0.046]$. However, this relationship can be considered low (Vcramer=0.25).

Other studies have found no relationship between body satisfaction and risk factors for AN (Bosi et al., 2014; Côrtes et al., 2013), or a low relationship (Souza, Souza, Barroso, & Comin, 2013), corroborating the present study data. However, even though such associations are either absent or low, it is important to pay attention to them. In this study the majority of participants (n=75) proved to be dissatisfied with their bodies. Bosi et al. (2014), relating to dissatisfaction with body weight and BMI classification with the presence of abnormal eating behavior or risk, observed that as dissatisfaction and/or classification of BMI increase, the prevalence of abnormal behavior or risk also increase. Xavier and Almeida (2016) also identified relationships between BMI and body dissatisfaction, and they verified that the presence of these two factors – increased BMI and body dissatisfaction – contribute to the formation of a distorted body image. The distortion of body image, besides being one of the symptoms of AN, can be considered a risk factor for the development of the disorder (Lima, Rosa, & Rosa, 2012).

The composition of the corpus to analyze the social representations of anorexia nervosa was made by the transcription of the answers to the following question: What is anorexia for you? The corpus was made up of 100 Texts which gave rise to 100 Segments of Text (STs) containing 446 different words. For analysis, we considered words with a frequency equal or higher than four and a chi-square with statistical significance $(\chi^2 \geq 3,84, df=1)$. The STs rate retained for analysis was 76%. DHC produced 6 classes consisting of segments of texts different from each other. In each one of the classes was presented: the title of the class; the number of ECUs which made it up; the associated variables described, and the words which make them up, with the respective frequencies and Chi-square values, as **Figure 1**.
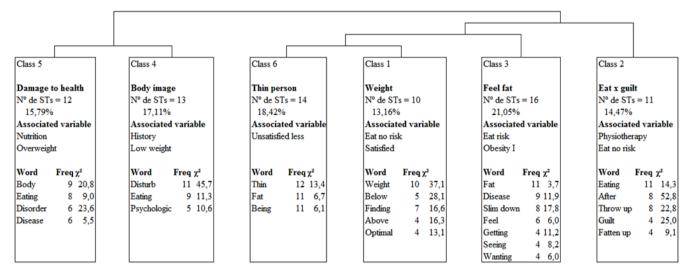
Figure 1. Dendrogram the descending hierarchical analysis of Social representations of anorexia.

The descending hierarchical classification (DHC) of the corpus on the social representations of the anorexia resulted into 6 classes. In **Figure 1**, it is possible to observe that the first partition of the corpus opposes the classes 4 and 5 to the remaining classes. The second partition demonstrates the opposition between class 2 in relation to classes 3, 1 and 6. The third partition opposes class 3 to classes 1 and 6 which oppose each other in the fourth partition. The fourth partition also opposes class 5 to class 4.

Class 5 – Damage to health

Class 5 was made up of 12 STs, corresponding to 15.79% of the entire corpus. It is associated with the students of nutrition and also to those who are overweight. Its content is represented by STs formed by the words: *Body, Eating, Disorder* and *Disease*. Its content deals with the damage that AN causes to physical health. An excerpt of the answers illustrates their content:

Anorexia, for me, is the excessive worry about having a perfect body doing even inadequate procedures to target what you want, significantly impairing health. (Student 97, 18 years).

Class 4 – Distortion of body image

Class 4 was made up of 13 STs, corresponding to 17.11% of the corpus. It is associated with the students of History and also to those who are underweight. Its content is grouped around the STs with words: *Disturb, Eating* and *Psychological*. Its content deals with the inadequate perception that people with AN have about their own bodies. The response of one of the students is illustrative of the class:

Anorexia is a psychological disorder where a patient has a physical form and sees herself in another completely different form, leading to major food problems. (Student 03, 19 years)

Class 6 – Very thin people

Class 6 was made up of 14 STs, corresponding to 18.42% of the entire corpus. This class has characteristics of students who demonstrated body dissatisfaction because of low weight. Its content is represented by the STs with words: *Thin, Fat* and *Being*. Its content describes the extreme thinness of people suffering with AN, as can be seen in the students' responses:

It is when a person is very thin and does not have the desire to eat, when she eats, she thinks she is fat. (Student 41, 21 years)

When the person is already thin, like a stick, and still stop eating, because she thinks she is fat. (Student 81, 24 years)

Class 1 – Worried about weight

The first class was made up of 10 STs, corresponding to 13.16% of the entire corpus. Mainly students classified as no risk for the development of AN and that demonstrated to be satisfied with their body shape evoked its content. Its content is represented by the STs with words: *Weight, Below, Finding, Above* and *Optimal*. This class indicates the preoccupation with weight people with AN tend to have in excess, as can be seen in the students' responses:

People upset with the weight, and desperate for a solution. (Student 68, 19 years)

People who look in the mirror and find themselves overweight. (Student 73, 23 years)

Class 3 – Person is thin, but feels fat

Class 3 was made up of 16 STs, corresponding to 21.05% of the corpus. Its content was evoked mainly by students classified as a risk for the development of AN and also for students with obesity I. Its content is represented by the STs with words: *Fat, Disease* and *Slim down*, among others. In this class is named the feeling of being fat or overweight, even if in reality the person isn't. Some responses are illustrative of the class:

Disease in which women are obsessed with thinness, they always see themselves fat and do not eat. (Student 19, 20 years)

Anorexia is a disease where the person does everything to stay thin, and the thinner she is the fatter she feels and want to lose more and more weight. (Student 32, 26 years)

Class 2 – Eat, guilt, vomit

The second class was made up of 11 STs, corresponding to 14.47% of the corpus. It is associated with the students of physiotherapy, and also by those who were classified as no risk for the development of AN. Its content is represented by the STs with words: *Eating, Vomit, Guilt* and *Fatten up*, among others. The students indicate that the person with anorexia after eating feels guilty and tries to soften the blame forcing vomiting. Some responses are illustrative of the class:

Anorexia is an eating disorder where the individual feels fat even when thin, has a sense of guilt after eating and often throw up after meals. (Student 66, 19 years)

Anorexia is a psychological disorder that makes the person feel fat even when she isn't, and to control weight the same person eats and then force vomiting because she feels guilty for eating and fear of gaining weight. (Student 96, 28years)

Social representations of anorexia

The analysis undertaken with the help of the IRaMuTeQ program made it possible to identify the social representations of AN among students. The Descending Hierarchical Classification (CHD) generated 6 classes, and the first corpus partition opposed classes 4 and 5 to others. This partition contrasts objective and subjective aspects of the disease. Classes 4 and 5 indicate disease characteristics, describing the losses it causes to health and body image distortion as most striking feature. The other classes describe concerns and feelings that accompany the disease. Its content deals with the suffering experienced subjectively by people suffering with AN.

Classes 1 and 6, in turn, opposed to Class 2 and 3 in a second partition. The two first (1 and 6) dealing with characteristics of people with AN, emphasizing the constant preoccupation with weight (class 1), and the extreme thinness of people who become ill (Class 6). Classes 2 and 3, in turn, deal with the feelings that these people experience. The guilt felt after eating food, often leading to elimination of food through vomiting (class 2); and the feeling of being fat, although she's not (class 3).

Based on the analysis of classes, we can see that the social representation of AN among students is organized around three main axes. The first deals with objective aspects of the disease, the second deals with the characteristics of people who experience the AN, and the third deals with the feelings that accompany the disorder. By linking the SR with the courses students are taken, it was found that the students of the Nutrition and History emphasize the objective aspects, while physiotherapy students emphasize the feelings which accompany people suffering with AN, especially guilt that they feel after eating. The Aesthetic students emphasize all axes. The students of Nutrition focus their remarks primarily on the damage caused to health, which can be related to the information acquired during their formation. However, it is important to consider that students from all periods of the course were interviewed, so that some students were at the beginning their course.

The BMI of the participants is another variable that relates to social representations that they have about AN. The students with average weight were distributed in all classes. The Anorexia representations as disease characterized by changes in body image is characteristic of low weight respondents. The health effects are emphasized by the participants overweight. And the participants classified with obesity I emphasize the feeling of being fat, that AN patients feel.

Regarding to body satisfaction, it can be seen that the students who demonstrated dissatisfaction with their body by being overweight indicate the various features of the AN. The students who are satisfied with their body emphasize the concern with the weight attached to AN, while those who are dissatisfied because they consider themselves too thin emphasize the iconic aspect of SR anorexia, extreme thinness.

When relate to social representation with the presence of risk factors for anorexia development, it can be seen that the idea that anorexia generates feelings of excessive concern with body weight and guilt by eating food is present in the discourse of students who did not have a risk factor for developing the disease. The discourse of the students who have risk factors for developing anorexia centers around the idea that anorexia is characterized by the feeling of being fat, even if she is thin.

The analysis of the representational content, and its association with some variables, indicates that, regardless of the course, all participants presented a representation that approaches the description of disease disseminated by scientific community. Similar data to those found by Grando and Rolim (2006) among health professionals. Even the students from the History course, which is not related to the health sector, pointed descriptive characteristics of the disease.

What became clear was that, independent of the variables investigated, the social representations of anorexia are guided in their characteristics and feelings that accompany it. However, its causes, prevention and consequences are not present in the discourse of the study participants. Still, it should be highlighted the recognition by participants of the pathological character of the situation, to recognize the severity of the disease, sometimes pointing out the physical aspects and sometimes pointing out the psychological ones. Different data found by Santiago et al. (2012) and Giacomozzi (2010) who identified the negation of the disease among young people investigated.

Final considerations

The results indicated the presence of risk factors for AN between the research participants. This study did not find that students from different courses had different propensities for the development AN. It is important to note that this study sample was small, only 100 students selected for convenience, and to claim that there is no relationship between the area of training and the presence of risk factors for AN would be required further study, with students from different courses.

It was further found in the group studied that dissatisfaction with their own bodies is related to the presence of risk factors for the AN development. This information proves to be very important as it reinforces the seriousness of the consequences that the cult of the slim body, as the standard of beauty spread by the media and accepted by society, has on the health of women in general, and especially the university students. On the other hand, common characteristics of participants who had higher risk of developing AN have not been identified, unless the observation that the higher the BMI the more likely the participants to develop risk factor for AN.

Social representations about AN indicate that participants have a good technical knowledge about disease characteristics, and it was not possible to identify representations that promote the existence of risk factors for the disease development. However, data from this study were collected through written responses to an open question. In order to deepen the knowledge about the social representations of anorexia, research could be developed using multi methods, adding interviews or even focal group techniques, which provide important data for the characterization of social representations. It is important to consider that the literature lacks of studies that investigate the social representations of anorexia, and studies that seek to characterize such representations can help to identify beliefs that circulate in society, creating bases for prevention programs.

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