### FOOD AND NUTRITION IN **COLLECTIVE HEALTH**

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Giane Moliari Amaral Serra

Thais Salema Nogueira de Souza1

<sup>1</sup> Universidade Federal do Estado do Rio de Janeiro ROR, Escola de Nutrição, Departamento de Nutrição em Saúde Pública. Rio de Janeiro, RJ, Brasil.

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# Correspondence

Lucia Maria Latini Sacom psinutri.luciasacom@gmail.com

### Assistant Editor:



🔟 Érika Cardoso dos Reis

# Perceptions of undergraduate Nutrition students about attitudes and characteristics attributed to overweight people and associated stigmas

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### Abstract

Introduction: Overweight is a complex social and public health problem. Living in the paradox between the obesogenic environment and social lipophobia, people stay away from health services due to weight stigma. Objective: This study aimed to analyze the perceptions of Nutrition students about overweight, attitudes and characteristics attributed to overweight people and the stigmas associated with them. Method: Participants were 20 public university students between 18 and 30 years old, mostly single women. Antifat Attitudes Test and semi-structured group interviews were applied. Data were analyzed using Excel, and the interviews were subjected to thematic analysis according to Bardin. Result: Negative attitudes toward overweight people were associated with the belief that weight can be controlled by the individual, with perceptions focused on biological and clinical nutritional aspects. Nutritional approaches and strategies focused on behavioral changes, without considering the individuals' living conditions and economic, social, and cultural contexts. Anti-obesity attitudes were refuted when related to character judgment and social depreciation, but went unnoticed when motivated by individual accountability and guilt. Such attitudes, reinforced by social fatphobia and market pressures, accentuate prejudice and become an obstacle to humanized nutritional care. Conclusion: Training nutritionists should broaden the debate on social stigma towards overweight people.

Keywords: Overweight. Weight stigma. Nutrition. Nutritionist.

### Resumo

Introdução: O excesso de peso é um problema social e de saúde pública complexo. Vivendo o paradoxo entre um ambiente obesogênico e a lipofobia social, pessoas se afastam dos serviços de saúde devido ao estigma de peso. Objetivo: O objetivo deste estudo foi analisar as percepções de estudantes de Nutrição sobre excesso de peso, atitudes e características atribuídas às pessoas com excesso de peso e os estigmas associados a elas. Método: Participaram 20 estudantes de universidade pública, com idade entre 18 e 30

anos, a maioria mulheres solteiras. Foram aplicadas as Escalas de Atitudes Antiobesidade e entrevistas coletivas semiestruturadas. Os dados foram analisados com auxílio do Excel e as entrevistas submetidas à análise temática segundo Bardin. *Resultado:* Atitudes negativas em relação às pessoas com excesso de peso foram associadas à crença de que o peso pode ser controlado pelo próprio indivíduo, com percepções focadas em aspectos biológicos e da clínica nutricional. As abordagens e estratégias nutricionais foram focadas em mudanças comportamentais, sem considerar as condições de vida e os contextos econômico, social e cultural das pessoas. As atitudes antiobesidade foram refutadas quando relacionadas ao julgamento do caráter e da depreciação social, mas passaram despercebidas quando motivadas na responsabilização e culpabilização do indivíduo. Tais atitudes, reforçada pela gordofobia social e por pressões mercadológicas, acentuam o preconceito e tornam-se um obstáculo ao cuidado nutricional humanizado. Conclusão: A formação de nutricionistas deve ampliar o debate sobre o estigma social em relação às pessoas com excesso de peso.

Palavras-chave: Excesso de peso. Estigma de peso. Nutrição. Nutricionista.



# **INTRODUÇÃO**

Overweight is considered one of the biggest public health problems worldwide, encompassing people who are overweight and have varying degrees of obesity. Control and prevention strategies based exclusively on medical sciences have often been counterproductive, as they do not address socioeconomic and cultural issues, as well as a multitude of factors involved in the process of weight gain. They disregard the stigma arising from the "burden of the social gaze" that falls on people, as if they were unable to follow socially imposed practices for "weight control".

Scientific production, correlating concepts of food, nutrition, health and disease, is not immune to the conflicts and strategies of social institutions and political issues, which involve the right to adequate, healthy and sustainable food and the interests of the food and pharmaceutical industries. Thus, considering "only the nutritional aspects of nutrition is to impoverish and weaken it".<sup>3</sup>

Overweight is a multicausal condition; It is not something that can be controlled only by the individual, as it also results from the impacts of the global food system, demands of socioeconomic life, increased production of ultra-processed foods and lifestyle habits of modern society, which have made fast food, ready-to-eat food, from restaurants and delivery, the easiest and quickest answer.<sup>4</sup>

In contrast to a food environment that promotes and favors healthy eating practices, there is the obesogenic environment, which, according to Swinburn et al.,<sup>4</sup> can be understood as a set of physical, economic, political and sociocultural means that can contribute to overweight and obesity. Furthermore, the food industry exerts great economic and political power in maintaining this obesogenic environment, favoring ultra-processed products over natural or minimally processed foods.<sup>5</sup>

Health professionals must recognize the importance of the environment and lifestyle as determinants of nutritional status and health conditions, seeking to implement actions that consider these aspects, aiming to improve the quality of life and longevity of the population.<sup>6</sup>

Programs and actions aimed at food and nutrition education are still greatly influenced by professional training based on the biomedical model, which does not usually incorporate a historical-critical perspective or dialogue with other rationalities, as in the case of inter and transdisciplinary experiences with the social and human sciences.<sup>7,8</sup>

Proposing changes in eating practices and behaviors, so that they are beneficial and sustainable, requires understanding how the obesogenic environment is experienced and what influence it exerts on those who suffer due to overweight; and how weight bias can reinforce social stigma. Weight bias is understood as "different actions, thoughts and feelings for some people depending on their weight or physical shape".<sup>6</sup>

In this scenario, social transformations related to body image standards stand out. The concept of a "fat body" changed according to the sociopolitical and historical moment. In Brazil, at the beginning of the 20th century, corpulence was desired and considered synonymous with wealth and power; being overweight or underweight reproduced the distinction between social classes. Over the century, the idealized body image, especially for women, became thin. The coveted standard of beauty required plastic surgery, liposuction, and adherence to the countless diets promoted by the media. The food and pharmaceutical industries, anchored in the concept of obesity as a disease, focused on diet and light foods and weight-loss medications. The increase in anorexic and bulimic bodies, including among young people, is also a result of this process.

According to Wolf,<sup>11</sup> the promotion of the plastic surgery industry, weight-control diets, and pornography is a control mechanism. The cult of beauty and the preservation of youth at any price is encouraged to prevent the feminist ideals of intellectual, sexual, and economic emancipation, achieved by women since the 1970s, from being realized. The "thin body" has become, on the one hand, an object of desire and, on the other, an inexhaustible source of income. The fear of body fat, of being fat and stigmatized as "obese" has become part of social history.

The exacerbated social prejudice against obesity, called fatphobia, expresses the "stigmatization and aversion encompassed by a structural oppression in society that affects fat people", 12 in which there is a negative moral judgment of people with obesity, which may come from health professionals themselves. They do not perceive excess body weight as a result of multifactorial aspects and do not recognize fatphobia as oppression, since such a situation is seen only as a health issue, legitimized bythe biomedical discourse. 212

The Report of the IV National Training Meeting, promoted by the Federal Council of Nutritionists (CFN), highlighted the importance of the science of Nutrition going beyond the biological, broadening its view to social, political and human sciences. Good quality training should aim to produce more critical, reflective, political, and socially involved professionals, always alert to threats to the guarantee of constitutional rights to access to health and food.<sup>13</sup>

Nutritionist training requires commitment to health practices based on humanized care and an understanding of the individual as a whole, as part of a complex and unequal society that is distinguished and differentiated according to its sociocultural traditions and economic conditions, in specific time and place.

Therefore, this study aimed to analyze the perceptions of Nutrition students, future nutritionists, about overweight, attitudes and characteristics attributed to overweight people, and the stigmas associated with them, given the complex context presented.

Such an understanding may be useful in assessing the need for professional training that addresses overweight in a multidimensional and systemic way, aiming at promoting health and healthy and fair lifestyles, instead of focusing on disease and weight loss.

### **METHOD**

This is a qualitative-quantitative study with undergraduate students from the School of Nutrition at the Federal University of the State of Rio de Janeiro (UNIRIO). The research was approved by the institution's Research Ethics Committee, under Resolutions 466/2012 and 510/2016, approved under number 5,464,218.

The invitation to participate in the research was made in two ways: by digital means (social media and email), and in person, with students at the School of Nutrition on the days of the group interviews. At that time, the objectives and procedures of the research and the inclusion criteria were presented, which were: being enrolled in one of the last three periods of the course, being at least 18 years old, reading and agreeing to participate in the research, and signing the Free and Informed Consent Form (FICF).

Twenty students selected by convenience sampling participated in the study and attended one of the four interviews held on July 4 and 5, 2022.

Before starting the interview, the meeting dynamics were explained to the participants, who completed a questionnaire with socioeconomic data and the "Antifat Attitudes Test" (AFAT), which lasted an average of five minutes. Once the unidentified forms were collected, the interview began, which lasted an average of 30 minutes. The interviews were audio-recorded and transcribed for analysis.

It is worth noting that the AFAT scale was used with a dual purpose: 1. To capture objective data on perception, using a validated instrument; 2. To provide a warm-up for reflection and dialogue on the topic, for the interviewed students, valuing intersubjectivities.

The AFAT was developed to assess negative attitudes related to obesity and people with obesity and adapted for the Brazilian population by Obara & Alvarenga.<sup>14</sup>

The scale consists of 34 items, which address three dimensions of attitudes, distributed in three subscales: a) social and character depreciation: with statements that describe undesirable personal characteristics related to the personality

and social contempt of the person with obesity; b) physical and romantic unattractiveness: statements that reflect the perception that people with obesity are dumsy, unattractive and unacceptable as romantic partners; and c) weight control and guilt: statements alluding to beliefs regarding the responsibility of obese individuals for their overweight.<sup>14</sup>

The responses in the AFAT are given on a Likert scale with five options, ranging from "I do not agree with anything" to "I completely agree" (with scores from 1 to 5, respectively), and analyzed by section and frequency of agreement and disagreement, in which higher scores indicate more negative attitudes towards obesity and overweight individuals. Six positive statements present inverse scores on this scale, thus, "higher means reflect greater negative attitudes towards obesity and obese individuals". The calculation was made according to the original authors and their adaptation to Portuguese, 14 with the help of Excel software.

Participants were encouraged to give their opinions through semi-structured questions, allowing them to freely discuss the topics covered, 15 since the aim was to understand their words without influencing their speech. 16,17

The opinions and perceptions collected through the interviews were subjected to Content Analysis, in the thematic modality according to Bardin, <sup>18</sup> following the phases of pre-analysis, exploration of the material and treatment of the results (interference and interpretation). <sup>18-20</sup>

The collected material was divided into comparable categorization units (recording units and context units), resulting in the final categories, which allowed inferences. The context units (transcribed sentences and paragraphs) were identified with alphanumeric indication from P1 to P20. The categories were defined later, in light of the analysis process, <sup>18</sup> that is, they emerged within the scope of the responses given by the participants.

Five thematic units emerged: a) factors that lead to overweight; b) characteristics attributed to overweight; c) dietary practices; d) nutritional approaches and strategies; and e) anti-obesity attitudes.

In the theme "factors that lead to overweight", we distinguished those inherent to the individual, such as biological factors (genetics, body structure, metabolism, physiology, etc.) and social factors, such as the environment (physical or community), social relationships (family, work, friendship) and public and social policy strategies.<sup>21</sup>

Two categories were therefore formed: 1) individual-centered factors (IC), based on four subcategories found in the registration units: biological, lifestyle, eating pattern, sedentary lifestyle; and 2) social-centered factors (SC), arising from the subcategories environment, public and social policies, and social relations.

Regarding the theme "characteristics attributed to excess weight", two categories stood out: 1) the biomedical standard (BS), which encompasses perceptions based on nutritional assessments (BMI classification, anthropometric values, medical exams, excess body fat, and designation of lack of health),<sup>22</sup> and 2) the social standard (SS), related to the visual perception of the physical shape of the body, determined by the historical-social scenario in which it is inserted or determined by the media.<sup>29</sup>

Concerning the theme "eating practices", only the eating pattern stood out, always linked to excessive food intake, based either on excess ultra-processed foods ("junk food and fast food"), or on the consumption of foods considered healthy. The categories that stood out were quality (QL) and quantity (QT) of food.

In "nutritional approaches and strategies", a topic related to the nutritionist's role in the treatment and prevention of obesity, the context units revealed four categories: multidisciplinary care (MC); diet for weight loss (DL); behavioral change (BC); and no specific approach (SA).

MC was used as a category in contexts in which the assistance of other health professionals, such as psychologists and endocrinologists, was considered essential for nutritional treatment. DL refers to diet therapy as a central strategy to reduce body weight. BC encompasses all approaches that aim to change behavior, attitude, eating patterns and/or habits, and lifestyle, using, for example, food and nutrition education strategies or behavioral nutrition. <sup>6,23</sup> Finally, the SA category

encompassed contexts in which "humanized" and/or "individualized" care was the focus of nutritional care, or when there was a lack of knowledge about specific approaches and/or strategies for this population.

The theme "anti-obesity attitudes" was based on the statements of the AFAT, which presents phrases with negative attitudes toward obese individuals. <sup>14</sup> In the present study, in light of such statements, expressions of: a) disbelief and doubt alluding to the social externalization of these negative attitudes emerged; b) recognition of such attitudes as a social reality; and c) critical manifestations regarding the existence of such attitudes. Three categories were revealed: skepticism (SK); condescending observation (CD) and critical observation (CR).

### **RESULTS AND DISCUSSION**

Socioeconomic data were collected to characterize the population. Of the 20 students, 85% were women; 85% were single; all were over 18 years old (75% under 30); with incomplete higher education; and with a monthly per capita family income between 3-6 minimum wages (40%).

In the total score on the AFAT scales, the "Weight control and guilt" subscale had the highest score (1.75), followed by the "Physical and romantic unattractiveness" subscale (1.57). Both exceeded the result for the total mean in the scale score (1.42). Table 1 presents the scores obtained on the total scale and subscales.

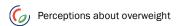
**Table 1**. Mean total score and by AFAT subscales. Rio de Janeiro-RJ, 2022.

Variables	Mean	Standard deviation
Total AFAT	1.42	0.33
Social and Character Depreciation Subscale	1.12	0.16
Physical and Romantic Unattractiveness Subscale	1.57	0.35
Weight Control and GuiltSubscale	1.75	0.68

Source: the authors.

Table 2 presents the results of the mean, standard deviation and frequency for each participant's choices in the AFAT. Of the statements on the "Weight control and guilt" subscale, four exceeded the total mean of the subscale: "most fat people buy a lot of junk food"; "fat people don't necessarily eat more than other people", "if fat people really wanted to lose weight, they could" and "most fat people will cling to any excuse to be fat". In the "Physical and romantic unattractiveness" subscale, the statement "if I were single I would date someone fat" had the highest anti-obesity bias of the entire scale (average of 3.05). In the same subscale, the following exceeded the total subscale average: "fat people have as much motor coordination as anyone else", "fat people should be encouraged to accept themselves the way they are" and "fat people are unattractive". It is noteworthy that the responses to all these statements have a considerable standard deviation.

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**Table 2.** Mean and standard deviation of the response scores per statement and relative frequency of the scale options. Rio de Janeiro-RJ, 2022.

Antifatattitudes	Mean	Standard deviation	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
1. There is no excuse for being fat.	1.50	1.10	80	5	0	15	0
2. If I were single, I would date a fat person.*	3.05	1.15	10	15	50	10	15
3. Most fat people buy a lot of junk food.	2.75	1.16	20	20	25	35	0
4. Fat people are not attractive.	1.80	1,06	55	20	15	10	0
5. Fat people shouldn't wear clothes that show too much of their bodies in public.	1.05	0.22	95	5	0	0	0
6. If fat people don't get hired for a job, it's their own fault.	1.10	0.22	95	5	0	0	0
7. Fat people don't care about anything other than eating.	1.10	0.31	90	10	0	0	0
8. I would lose respect for a friend who started getting fat.	1.00	0.00	100	0	0	0	0
9. Most fat people are boring.	1.00	0.00	100	0	0	0	0
10. I don't believe a normal weight person would marry a fat person	1.15	0.49	90	5	5	0	0
11. Society is very tolerant of fat people.	1.40	0.75	75	10	15	0	0
12. When fat people exercise, they look ridiculous.	1.10	0.22	95	5	0	0	0
13. Most fat people are lazy.	1.30	0.66	80	10	10	0	0
14. Fat people are just as competent at their jobs as anyone else*	1.25	0.91	5	0	0	5	90
15. If fat people really wanted to lose weight, they could.	2.00	1.03	35	45	5	3	0
16. Being fat is sinful.	1.20	0.70	90	5	0	5	0
17. It's disgusting to see fat people eating.	1.00	0.00	100	0	0	0	0

**Table 2.** Mean and standard deviation of the response scores per statement and relative frequency of the scale options. Rio de Janeiro-RJ, 2022.

Antifatattitudes	Mean	Standard deviation	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
16. Being fat is sinful.	1.20	0.70	90	5	0	5	0
17. It's disgusting to see fat people eating.	1.00	0.00	100	0	0	0	0
18. Fat people have no willpower.	1.35	0.59	70	25	5	0	0
19. I prefer not to associate with fat people.	1.25	0.79	90	0	5	5	0
20. Most fat people are moody and difficult to deal with.	1.30	0.66	80	10	10	0	0
21. If bad things happen to fat people, they deserve it.	1.00	0.00	100	0	0	0	0
22. Most fat people can't keep things clean and tidy.	1.00	0.00	100	0	0	0	0
23. Society should respect the rights of fat people*	1.10	0.31	0	5	0	5	90
24. It's hard not to stare at fat people because they are unattractive.	1.00	0.00	100	0	0	0	0
25. The idea that genetics causes obesity is simply an excuse.	1.75	1.21	60	25	0	10	5
26. I wouldn't stay in a relationship if my partner became fat.	1.30	0.66	80	10	10	0	0
27. I don't understand how anyone can be sexually attracted to a fat person.	1.40	0.82	80	0	20	0	0
28. If fat people knew how bad they looked, they would lose weight.	1.30	0.64	85	5	10	0	0
29. Fat people have as much motor coordination as anyone else*	2.10	1.33	45	25	15	5	10
30. Fat people are unclean.	1.00	0.00	100	0	0	0	0
31. Fat people should be encouraged to accept themselves the way they are*	1.85	1.14	5	5	10	30	50
32. Most fat people cling to any excuse for being fat.	1.80	1.06	55	20	15	10	0
33. It's hard to take a fat person seriously.	1.10	0.45	95	0	5	0	0
34. Fat people don't necessarily eat more than other people*	2.05	1.10	10	5	15	25	45

<sup>\*</sup> Attitudes that have inverted scores on the scale.

Source: the authors.

The AFAT results reveal the group's view on the individual's responsibility for his/her overweight. The "weight control and guilt" subscale had the highest score. These data are worrying, since the belief that a person is not healthy or does not have a healthy life, based solely on his/her weight, can lead to prejudiced attitudes and influence professional conduct. The same situation was found in another study with Nutrition students who, faced with hypothetical cases of people with obesity, evaluated their health status, self-care and discipline more negatively, and were more rigid and restrictive, allowing themselves to be influenced basically by their body weight.<sup>24</sup>

The results also indicate that the group presented more negative attitudes due to issues related to "weight control and guilt", associated with the belief that overweight can be controlled by the person, failing to consider the various factors that determine this situation.<sup>25</sup>

Research with students and professionals in the health area and Nutrition students and the lay public<sup>26-28</sup> present similar data, in which the statements with the highest AFAT scores are "most fat people buy a lot of junk food", "most fat people cling to any excuse to be fat" and "if fat people really wanted to lose weight, they could".

The group analyzed in this study did not show very high values, if we analyze in terms of relative frequency, since less than half agreed with these statements. The fact that most participants were women may be relevant to the lower negative attitudes related to obesity, since men have more anti-obesity attitudes compared to women, <sup>2629</sup> even among Nutrition students. <sup>25</sup> Therefore, this situation is expected in undergraduate Nutrition courses, since data from the Federal Council of Nutritionists indicate that 94.1% of nutritionists are women. <sup>30</sup> Studies with Nutrition students and from other health areas had a similar population: predominantly female and aged between 20 and 30 years. <sup>242631</sup>

The fact that Nutrition students share the belief that excess weight is correlated with individual choices can lead to negative attitudes towards obesity. The stigma of obesity keeps overweight people away from health care, as they feel discriminated against by health professionals, interfering with the care, monitoring and health of these people. 32.33

Table 3 presents the frequencies related to the thematic units and their categories. In the thematic data inference, the frequency of the categories concerning the factors that lead to overweight, inherent to the individual (IC) most contributed to overweight. Sedentary lifestyle, lifestyle and eating patterns are included in this category as something that can be changed through the individual's own efforts.

**Table 3.** Frequencies related to thematic units and their categories. Rio de Janeiro-RJ, 2022.

Themes	Categories	Frequency
Factors that lead to overweight	Individual-centered factors – IC: biological,lifestyle, eating pattern, sedentary lifestyle	23
	Social-centered – SC: enviroment, public and social policies, social relations	11
Characteristics attributed to	Biomedicalpattern – BP	13
overweight	Social standard –SS	09
Eatingpractices	Qualitative – QL	09
	Quantitative – QT	09
	Multidisciplinary care – MC	03
Nutritional approaches andstrategies	Diet for weight loss – DL	05
	Behavioral change – BC.	07
	No specific approach – SA	05
Antifatattitudes	Skepticism- SK	07
	Condescending observation – CD	14
	Critical observation - CR	04

Source: the authors.

The biomedical standard category had the highest frequency regarding the characteristics attributed to overweight. The PS revealed through the socially established standard, often supported by the media (P10: "a larger number in clothes... like, 44 and above... 46, in this case"), had a less expressive frequency.

As for eating habits, there was equality between the categories represented by the excess consumption of ultraprocessed foods (QL) and by the excess calories or portion sizes (QT), whether they are considered healthy or not.

In the theme "nutritional approaches and strategies", the context units reveal a higher frequency in the behavioral change category. The categories "diet for weight loss" and "without specific approach" had the same frequency; and "multidisciplinary care", the lowest.

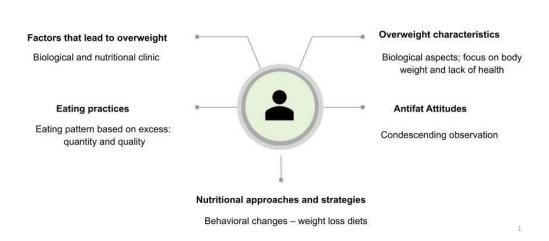
Concerning "anti-obesity attitudes", the condescending observation (recognition of the existence of negative attitudes, but justified in their social context) was the most frequent. Critical observation, expressed in arguments that recognize the existence of negative attitudes and analyze their effect in the social context, was less frequent. In this sense, P12 said:

[...] there is a lot of stigma against fat people, right? It is important to talk about this, especially within the nutrition field... because I believe that nutrition professionals make obese people even sicker, because they do not believe in the reminder, for example, of what they eat... they do not believe that they generally do physical activities [...].

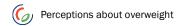
The following figure summarizes the group's perceptions about overweight. Factors such as the environment in which the individual is inserted, public and social policies and social relationships were considered much less relevant.

Figure 1. Group perceptions of overweight

Thematic Analysis



Source: the authors From the thematic analysis, the major view of students, that factors attributed to excess weight are based more on the biomedical issue and nutritional clinic, stands out. The characteristics attributed to overweight are focused on clinical and anthropometric analyses, often attributed to the health-disease binomial, as shown in the statements of P1 and P15, respectively: "...when I see a fat person, I think: well, 'they must not be healthy"; and, "...it is obvious that you have to do the calculations to know, [...] because that is where it will really characterize...it would be the BMI".



Overweight, however, does not result exclusively from energy balance, physiological and metabolic factors associated with genetic predisposition. Environmental and social factors lead to inadequate food consumption and a sedentary lifestyle, and the lack of adequate public policies for the care of people with obesity contributes to its increase worldwide.<sup>4</sup>

Therefore, it is important not to associate overweight with exclusively biological factors and individual behaviors. However, the students interviewed associated obese people with the fact that they are unable to maintain an adequate eating pattern and follow balanced diets and are sedentary, because they do not consider food and physical activity as a priority, despite identifying social determinants that hinder healthy practices. Such ideas are expressed in the following voices:

P3: [...] they see food as a secondary concern. They think: "- Ah... I have to work, I have to earn money to support my family", and they leave food in the background [...] they don't pay attention to what they are consuming, and this also contributes to obesity.

P8: "Even exercise, I leave physical exercise for last, if I have time, I'll go, if I don't have time, if I can't go... I don't see it as priority..."

This perception of the group is also revealed concerning eating behavior: it is focused on the eating pattern based on excess, without distinguishing between the consumption of ultra-processed or more natural foods, as expressed by P7:

[...] the portioning, too... they immediately think they are eating ultra-processed [....], the person's diet is the same... rice, beans, salad, but they eat in excess... excess of everything, not just excess of ultra-processed foods [...] the person can eat rice and beans all the time day, but he doesn't eat a single dish: there are five plates of rice; two plates of beans...

An association of dietary patterns with "excess of everything" can lead to attitudes of depreciation and individual blame for overweight, as it disregards the "social, cultural, environmental and political impact of individual and collective dietary choices".<sup>23</sup>

Biological and nutritional aspects are essential for the professional practice of Nutrition, but the pathologization of the fat body, the vision focused on a biological nutritional perspective<sup>34</sup> and on individual behavioral actions lead health professionals to morally judge individuals as responsible for their health, that is, considering those who become ill irresponsible.<sup>12</sup>

The authors argue that the scientific discourse (that obesity is a serious disease, a risk factor for several other diseases, with a high economic cost to society, which must be addressed as a medical and public health issue) underpins the version based on fat and high body weight and fosters social fatphobia.<sup>2,6,12,23</sup>

Although the students believe that behavioral change is a priority in the treatment of obesity, the lack of indication of professional approaches and strategies is noteworthy care, except for a mention of Food and Nutrition Education and Behavioral Nutrition as the basis for nutritional care, according to P12:

[...] in the food and nutrition education discipline, I think we learn more about educating people, talking about food and not nutrients... focusing on the present, what we can change, talking to the patient... talking about what is ultra-processed or not... what changes could be made that would help their health [...] nutrition... is an approach to eating behavior.

The importance of public policies for health promotion and obesity prevention actions was also not addressed. The Food Guide for the Brazilian Population, which is essential as a reference for food and nutrition education actions, <sup>35</sup> even if in an individualized approach, was not even mentioned. Integrative and Complementary Practices (PICs), authorized for nutritionists as a complementary part of nutritional and diet therapy care and made available by the Unified Health System (SUS), were also not present. <sup>36,37</sup>

These absences may reflect acapitalist society pressured by market economic interests and a nutrition education that still values biological aspects to the detriment of other dimensions of food and nutrition. The following voice reflects this thought:

P15: [...] I didn't see any discipline that taught me to look... to have a care protocol that aimed to not match macro and micronutrients for that person according to the diseases they have, according to their BMI.

Villela & Azevedo<sup>38</sup> emphasize that the science of nutrition, based on the Cartesian medical paradigm, on the biological and interventionist vision, led nutritionists to act in their clinical practice in a prescriptive and punitive way, trying to control the patient.

This group view of overweight as fragmented from society also emerges in the perception of anti-obesity attitudes, which are more skeptical and condescending than critical, as stated by P20:

I don't know if everyone agrees with me, but it also depends a lot... this thing of looking at people, it depends a lot on the degree of overweight. Because most people are overweight these days. But if we're talking about obesity, I think that yes, people suffer... it ends up being inevitable. You see an obese person getting on a bus, for example, and people look at them, and you're not even judging them, but other people might.

In nutritional care, nutritionists must identify and recognize their own stigma related to obesity, which is often unconscious but present in "oral or written guidance, motivational phrases for losing weight, recommendations for websites/magazines/focused on weight, before and after photos", among other attitudes of judgment and blaming the individual for their weight.<sup>6</sup>

The stigma of obesity goes beyond judgments of character and social depreciation. It also involves placing responsibility on the individual for weight control, assuming that weight loss is something they need to do for their health. Failure to perceive anti-obesity attitudes, and viewing obesity as an individual health problem focused on body weight, can end up justifying the stigma of obesity and reinforcing fat phobic discourse.

Nutritionists and nutrition students must reflect and recognize how much the words they use in dialogue affect those who suffer from overweight; It increases discrimination and stigmatization and, finally, it is urgent to consider that weight bias keeps away from treatment those who feel incapable of achieving the socially determined standard of thinness.

The group probably lacks a more critical thinking approach, based on political, social and economic factors, that consider the existence of a food system unfavorable to adequate and healthy eating practices - aspects clearly involved in the growing prevalence of overweight in the population. It is worth highlighting the importance of nutritionists recognizing, whether as professionals or citizens, that food is a human right and that there is a need to strengthen public policies aimed at caring for people who are overweight.



# **CONCLUSION**

The group of students analyzed showed perceptions of overweight focused on individual behaviors and biological causes, fragmented from the social environment, leading to the individual being held responsible for their overweight and health care, inadvertently reproducing anti-obesity attitudes. These perceptions can influence their professional practice, since anti-obesity attitudes, reinforced by social fatphobia and market pressures, accentuate prejudice and become an obstacle to nutritional care.

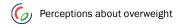
We highlight the importance of new studies aimed at training nutritionists, to point out ways to broaden the debate on the social stigma associated with overweight people, as well as the consideration of these issues in the National Curricular Guidelines for Undergraduate Courses in Nutrition and their inclusion in the curricula.

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#### Contributors

Sacom LML participated in the idealization of the study design, data collection, analysis, and interpretation, study writing, final review, and manuscript approval for submission. Serra GMA and de Souza TSN participated in the idealization of the study design, final review, and manuscript approval.

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