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Under the 'weight' of norms: Social representations of overweight and obesity among Brazilian, French and Spanish dietitians and laywomen

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ABSTRACT

Most contemporary Western cultures are characterized by fatphobia. The fat body is seen as morally incorrect, a sign of disease, loss of control and weakness. People with obesity and overweight, especially women, are discriminated against and stigmatized for their body size, including by health professionals like dietitians. This study sought to understand and compare social representations of obesity and overweight among dietitians and laywomen from three nationalities: Brazilian, French and Spanish, A qualitative and comparative methodology was established based on 131 semi-structured individual interviews. The analysis revealed that the categories of overweight and obesity were negatively perceived by laywomen and dietitians from all three nationalities. Moral discourses linking these conditions with lack of discipline and a lack of emotional control were frequently used. Fatness was associated with irrationality, putting individuals who were overweight and obese in a position of social and moral inferiority. In the case of obesity, these ideas were more discriminatory and stigmatizing. Although environmental, genetic, hereditary or metabolic causes were mentioned as factors causing obesity, behavioural aspects occupied a central place in the discourses. Differences were also observed among the three nationalities. Cultural factors related to the relationship with body and food seemed to influence the interviewees' social representations. Brazilian laywomen and dietitians put more emphasis on moral and individual aspects. Spanish, French and informants who were overweight were more likely to cite physiological and environmental determinants. French informants also mentioned the role of food education given by parents. In conclusion, the discourses of professionals and laywomen had more similarities than differences, were based on moral and normative judgements and influenced by sociocultural norms. Fatphobic attitudes may impact dietitians' perception of patients with obesity and the eating education process.

1. Introduction

The body is shaped by society and for society. Each social group determines the representations of an ideal, beautiful, healthy body, and the values associated with these representations (Saint Pol, 2010). In most contemporary Western cultures, the body has been subject to lip-ophobia (Fischler, 1990), which is systematic rejection of fat and fear of getting fat (Gracia-Arnaiz, 2010); and fatphobia, which is discrimination and stigmatization against fat individuals (Silva and Cantisani, 2018).

Obesity has been gradually medicalized and institutionalized as a medical problem (Lupton, 2013). Its epistemological status has been modified from a risk factor to a disease (Poulain, 2009). Obesity is now considered a global epidemic (WHO, 2000), following the increase in mortality rates linked to this condition and its association with chronic noncommunicable diseases (WHO, 2016). Additionally, the establishment of Body Mass Index (BMI) values for the definition of weight classifications, without considering biosocial heterogeneity, has contributed to the medicalization of fatness and to promoting an ideal

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body size, labelling those who do not have this ideal body size as overweight/obese (Gracia-Arnaiz, 2010). The diagnosis of the BMI is confused with the socially idealized "healthy weight". Thus, obesity becomes a great example of a socially constructed disease, since the status of "sick" does not come only from the BMI, but from the importance and moral value attributed to weight, body image and health in our society (Gutin, 2018). This process determines the existence of an altered norm not only as biological deviance, but also as social deviance, which affects how society observes individuals and how these individuals see themselves (Poulain, 2009; Nicholls, 2013). As contemporary lifestyles have been blamed for obesity, individuals are often made responsible for their deviance in body size (Germov and Williams, 1996; Saint Pol, 2010).

The process of medicalization of fatness has evolved along with sociocultural factors related to aesthetic norms (Jutel, 2006). Until the beginning of the twentieth century, the model of female beauty valued round shapes as a sign of fertility, health, wealth and emotional stability. The slim body was considered a sign of hunger, illness and poverty. These representations have gradually changed, as a consequence of sociocultural and economic changes linked to women's role, the grip of religion and the transformations of cities, among other factors (Fischler, 1990; Germov and Williams, 1996). Body size became both a cultural and a medical concern and health is now treated as an aesthetic state, which can be assessed through the shape and the measurement of the body (Jutel, 2006).

Currently, moral attributes of self-control and social distinction are associated with thinness, making it a symbol of good health, discipline and beauty, and turning it into an instrument of social mobility. Fatness has become a sign of illness, gluttony, loss of control and weakness. The reasoning has shifted from a physical characteristic to a moral judgment: the fat body is morally incorrect and stigmatized (Gracia-Arnaiz, 2010; Puhl and King, 2013; Flint, 2019; Ulian et al., 2020). Indeed, people that accord with causal narratives that blame the individual with obesity, considering it a sin or an addiction, tend to support punitive policy interventions towards those with obesity (Thibodeau et al., 2015). According to a sociological approach, stigma arises in social interactions in which the label "abnormal" is assigned to an individual by other individuals considered "normal". In this process, other characteristics are forgotten and the individual is reduced to his/her stigma (Goffman, 1963). Such a process is observed is the case of obesity, especially for women (Saint Pol, 2010), and helps to create or reinforce social inequalities between those perceived as "normal" and those perceived as deviant (Poulain, 2009). The medicalization of obesity is thus normative and this condition, as well as overweight, should be conceived as socially constructed categories that have social implications (Lupton, 2013).

Health professionals are influenced by social norms and representations concerning fatness (Schwartz et al., 2003; Budd et al., 2011; Gracia-Arnaiz, 2013; Carof, 2017; Flint, 2019). Many perceive individuals who are overweight or obese as sick and lazy people, without control and motivation. Dietetics students (Puhl et al., 2009; Obara et al., 2018) and dietitians (McArthur and Ross, 1997; Harvey et al., 2002; Cori et al., 2015) also have fatphobic attitudes. However, there is still a lack of studies on weight stigma among dietitians, especially outside Anglo-Saxon countries (Silva and Cantisani, 2018). Furthermore, although corporality is shaped differently by each sociocultural group (Saint Pol, 2010), few comparative studies have attempted to capture the influence of sociocultural contexts on these attitudes (SturtzSreetharan et al., 2021; Puhl et al., 2015, 2021). Since dietitians' attitudes towards body size can influence their professional activity, which has consequences for patients' health and psychological state (Budd et al., 2011; Carof, 2017), it is essential to gain a deeper understanding of it. This knowledge is essential to grasp the difficulties and weaknesses of the dietitians' weight management activity and to improve their training. Silva and Cantisani (2018) highlighted the importance of changing the hegemonically stigmatizing approach to

obesity in the field of nutrition, and the need for more studies on this issue.

According to Lewis et al. (2011), two approaches to understanding weight stigma coexist in the literature. The first, which is mainly derived from health social sciences, focuses on the impact of weight bias and the importance of reducing weight stigma to improve engagement in health-promoting activities. The second, which is rooted in sociology, medical anthropology and cultural studies, uses sociocultural theories to critique the dominant obesity discourse and institutional responses to weight issues, to reveal their implication in the stigmatizing process. The present study combines these perspectives by (a) using a critical analysis to compare social representations of obesity and overweight among dietitians and laywomen (without dietetics training) from three nationalities: Brazilian, French and Spanish, and (b) reaching socio-anthropological perspectives to identify the influence of sociocultural representations and norms on health professionals' and lay discourses.

2. Methods

2.1. Study design

This study aimed to grasp a complex social phenomenon through the critical approach of the socio-anthropology of dietetic norms (Grignon, 2015), critical nutritional/dietetics studies (Coveney and Booth, 2019) and critical weight studies/fat studies (Lupton, 2013). These perspectives analyse dietetic discourses on body and eating and the professionals involved in the creation and dissemination of these discourses. These approaches consider that dietetic discourses do not represent a set of objective practical rules and knowledge disconnected from their sociocultural contexts of production and dissemination. They are the result of a social construction, a moral system inseparable from these contexts that has social, moral and symbolic consequences. Considering this perspective, this research sought to understand how biomedical concepts, essentially, "obesity" and "overweight", were meaning under the influence of moral and social values among dietitians and laywomen from different cultural backgrounds.

Despite qualitative studies' potential to obtain information on body issues (Germov and Williams, 1996), a review of health professionals' attitudes to fatness noted that all the studies that have been undertaken were quantitative (Budd et al., 2011). Therefore, a qualitative methodology was followed in this study using semi-structured individual interviews (Blanchet and Gotman, 2005). The study also used a comparative cross-cultural synchronic approach. This methodology seeks to verify the regularities between two or more sociocultural contexts and the singularities of each case analysed in a given period of time (Vigor, 2005; Sobal, 1998). This approach, useful to compare the representations and norms of lay individuals and health professionals in Western industrialized societies (Gaspar et al., 2020), was considered in all stages of the research: in the choice of comparison units (setting and sample) and in the collection, analysis and presentation of data.

2.2. Settings

No previous comparative studies were found on the social representations of overweight and obesity in France, Spain and Brazil, where the prevalence of obesity among female adults in 2016 was 21.1%, 22.8% and 25.4%, respectively (WHO, 2016). France and Spain are neighbouring countries in the same economic and geopolitical area: the European Union. This anchor has led these two highly human developed countries (UNDP, 2020) to be subjected to similar nutritional guidelines, despite their differences in body norms.

As an aesthetic norm, slimming emerged under the influence of modern fashion (Fischler, 1990), with Haute Couture as its most significant institution and its heart in Paris (Lipovetsky, 1987). The first fashion shows, and the appearance of models, marked the French

fashion scene. This scene imposed itself throughout the world, dictating body standards for women. In France, the slimming thresholds that are considered acceptable are lower than in other countries (Saint Pol, 2010). In addition, previous studies showed that French women conceive corporeal beauty by highlighting the "natural" aspect (criticizing body transformation such as plastic surgery, for example) and elements linked to the psychosocial dimension, like happiness (Malysse, 2002; Gaspar, 2010).

The fieldwork in France was carried out in central and peripheral neighbourhoods of Toulouse. Its area is 118.30 km^2 and in 2017 its population was about 479,553 inhabitants, making it the fourth most populous municipality in France (INSEE, 2017). Toulouse is one of the main economic hubs of France, as the European capital of the aeronautics and space industry. Moreover, with over 100,000 students, many of them foreign, it is a university town.

In Spain, the pressure to be thin is lower than in France (Saint Pol, 2010). A previous study indicated that Spanish women had less bodily dissatisfaction than French women, were less likely to consider the existence of an ideal weight for health, more often relativized weight gain, and presented a higher threshold of acceptable body size. Furthermore, a healthy and beautiful body was more closely associated with aspects such as proportionality, the idea of "being strong", "having energy" and "having a body not too thin or fat" (Gaspar, 2010).

In Spain, the fieldwork was carried out in central and peripheral neighbourhoods of Barcelona, the administrative capital of Catalonia. Located on the Mediterranean coast, its area covers 102.15 km². It is the second largest city in Spain in terms of population (estimated at 1,620,809 inhabitants in 2017) and economy (Ajuntament de Barcelona, 2020).

Brazil, a country that presents a lower level of human development than France and Spain (UNDP, 2020), is world-renowned for revering body aesthetics (Edmonds, 2010). Voluntary body transformations are more common in this country, to the point that Malysse (2002) observed the existence of a paradigm of an "autoplastic body". In 2016, Brazil was the second country in number of cosmetic surgeries performed, representing 13.9% of the total cosmetic surgeries in the world (France: 2.5%; Spain: 2.2%) (ISAPS, 2016).

In Brazil, the fieldwork was carried out in central and peripheral neighbourhoods of São Paulo. Its metropolitan area houses the largest urban population in the country, with an area of 1.521,110 km² and an estimated population of around 12 million (IBGE, 2020). São Paulo is the economic capital and most cosmopolitan Brazilian city, as well as the main financial, corporate and commercial center of Latin America.

2.3. Sampling

The study was conducted with French, Brazilian and Spanish women, divided into two groups: dietitians and laywomen.

Despite differences in the dietetic profession's history (Lepiller and Poulain, 2015; Vasconcelos and Calado, 2011; Bernabeu-Mestre et al., 2016) and the duration of dietetic education, the profession of dietitian is legally recognized in France, Spain and Brazil. The study was limited to private practice dietitians to obtain a group that performed an equivalent activity. We did not establish an exclusion criterion regarding their ages and years of professional experience.

The group of laywomen was composed of university students. An exclusion criterion was being enrolled in nutrition and dietetics courses. We did not establish other limitations concerning the disciplines studied and the type of institution (private and public), although we sought to form a heterogeneous sample regarding these aspects. Students aged 18–30 years were interviewed, as young women are more influenced by aesthetic norms (Saint Pol, 2010).

Participants were recruited through: (1) internet searches (only for dietitians) using keywords in Google or searching on professional associations' websites; (2) announcements on the university campuses (only for laywomen); (3) researcher networks, where contacts were

made among the researchers' social circles; and (4) "snowball sampling" in which informants put us in touch with other informants. Participants were contacted before the interviews by email or telephone.

Fifteen dietitians were interviewed in each country, mainly in their offices, which allowed us to observe their work environment. In the case of laywomen, 25 interviews were conducted in Brazil, 32 in Spain and 29 in France. The sample size was determined according to the saturation of the data collected in each country, that is, the point at which the data collected became redundant and no different information was gathered (Grady, 1998).

2.4. Data production

The fieldwork was carried out between 2012 and 2015. A female researcher, with experience in qualitative research and fluent in Spanish, French and Portuguese, conducted the interviews following an interview guide in French, Spanish and Portuguese (approved by native speakers). The guide addressed their personal norms, representations and practices concerning eating and body. For example: "Do you believe that there is an ideal/normal weight for your health? Why? Which one is it?", "In your opinion, what are the causes of obesity?". In the case of dietitians, additional questions were included about their professional activity (supplementary material). Images of women with different body shapes were used to support the interviews. The interviews lasted between 50 min and 2 h. They were recorded and transcribed verbatim. Although the semi-structured interview is an appropriate method, the discourses obtained may present some bias. Often the interviewee could mention some aspects to construct a positive image of herself or because she thinks it may be of interest for the interviewer (Medina, 2004). Also, she does not reveal other aspects perceived as evident. To reduce this bias, the interviewer was attentive to non-verbal reactions and different questions addressed the same topic. Also, observations were undertaken in the three countries, permitting to verify whether the discourses corresponded to each social reality.

In order to compare the informants' body sizes, discourses and selfperceptions, their BMI was assessed (WHO, 2006). In the case of dietitians, their nutritional status or weight and height were requested. For laywomen, their weight was measured at the end of the interview using a digital scale. For practical reasons, their height was requested. Although we agree that the relevance of BMI for assessing nutritional status is problematic (Nicholls, 2013), we used this parameter, adopted by the World Health Organization and other studies, to explore if dietitians and laywomen classified with overweight or obesity would have different social representation of these conditions that they, in fact, also have. Previous evidence from Brazil has shown that although dietitians classified with obesity are stigmatized, they still stigmatize their patients with obesity (Araújo et al., 2015), so this could be an interesting issue for our paper. Finally, in this article, we use the term "normal" or "normality" to refer to situations in which individuals have a BMI defined as "normal" by medicine, but not to judge the individuals and their bodies or to advocate the existence of a "normal" weight that individuals should aspire to.

2.5. Data analysis

A thematic analysis was carried out by a researcher with experience in qualitative methodology, following Blanchet and Gotman (2005). This type of analysis is relevant for the development of explanatory models of social representations as it goes beyond individual words to identify social logics. The researcher developed an analysis grid composed of primary categories and its sub-categories (secondary categories). These categories were identified in the interviews based on the study's problems (defined taking into account the existing theoretical literature and our previous research) and according to new elements that emerged from the interviews. Therefore, the researcher coded the relevant categories related to the study's goals and/or those that were frequently repeated and had amplitude in the discourses. The ideas that referred to the same theme from one interview to the next were coded, searching for a systematisation of themes across the interviews. The transcription of each interview was coded according to the analysis grid. Through this codification, we first analysed each theme by country, comparing dietitians and laywomen, followed by the comparison between the three nationalities. This process was carried out under the supervision of a senior sociologist and a senior anthropologist (Blanchet and Gotman, 2005; Vigour, 2005) (coding scheme available in Supplementary material).

The main categories were: "being fat", "overweight", "obesity", "obesity causes", "lipophobic/fatphobic discourses", "fatphobia and dietetic activity", "weight management and dietetic activity" and "dietetic training, body norms and sociocultural perspective". Most categories were present in the discourses of the dietitians and laywomen of all three nationalities. Therefore, the categories were generally addressed, indicating the common elements and the particularities of each nationality/group. This approach remained close to the observed social reality and avoided stereotypes (Vigour, 2005). The analysis of these categories through the comparative approach allows us to understand how biomedical discourses are incorporated in the belief systems of different population groups in Western industrialized countries. Such an approach also makes it possible to know how lay perceptions and socio-cultural norms influence the norms, representations and practices of health professionals (Mennell et al., 1993) and to observe how the medicalization process is maintained by socio-cultural norms among laypeople and health professionals.

The study was approved by the Research Ethics Committee of the University of Toulouse. Informed consent was obtained from all participants and data confidentiality was guaranteed. The names of the informants are fictional.

3. Results

The results are addressed in three parts: the informants' profile, their social representations of overweight and obesity, and the influence of the dietitians' perceptions on their professional activity.

3.1. Informants' profile

Out of the 131 participants, 44 were French, 47 Spanish and 40 Brazilian. Table 1 shows the participants' age, nutritional status, education and years of experience as dietitians.

3.2. Social representations of "overweight" and "obesity"

The categories overweight and obesity were associated with negative ideas by most laywomen and dietitians. However, its definitions frequently seemed confusing, with unclear limits between "overweight", "obesity" and "being fat". Table 2 summarizes the main differences between social representations concerning overweight and obesity. While the interviewees considered that the categories "overweight" and "obesity" referred to a medical diagnosis, the category "being fat" was a subjective concept, subject to a pejorative visual representation. Marina (Spanish laywoman, 22), herself overweight, made this distinction: "Overweight translates into weight, in kilos, while being fat is an image". No dietitians or lavwomen mentioned medical definitions. Instead, they mainly approached these conditions through a normative judgment. Although we could expect that dietitians, as professionals with nutritional training, would be more concerned with the potential health risks associated with these conditions or would present a more technical perspective, this was not observed and the discourses of professionals and laywomen had more similarities than differences.

In the case of overweight, some dietitians and laywomen recounted moments in their lives when they had been "overweight". When they were asked if they had the corresponding BMI or an expert diagnosis, they said that it was not "real overweight", but how they perceived and felt themselves. Thus, although overweight was sometimes associated with a medical and quantitative definition, the referential thresholds given to its definition remained unclear and the informants used this concept subjectively and symbolically to give meaning to a negative bodily feeling. Furthermore, while obesity was perceived as an illness, a condition that always needs medical intervention, ambivalences and contradictions were notable in the extent to which overweight is considered a medical deviance deserving of treatment. Informants, including dietitians, tended to spontaneously say that being overweight "is bad for your health" and therefore needs to be "corrected". However,

Table 1

Sociodemographic characteristics and nutritional status of Brazilian, Spanish and French laywomen and dietitians interviewed.

	Brazilian informants ($n = 40$)		Spanish informants ($n = 47$)		French informants $(n = 44)$	
	Dietitian (n = 15)	Young laywomen (n = 25)	Dietitian (n = 15)	Young laywomen (n = 32)	Dietitian (n = 15)	Young laywomen (n = 29)
Mean Age (years)	28.9	22.8	38.4	22.1	33.7	21.4
Age range (years)	22-38	19–29	23–57	18–27	22-53	18–25
Nutritional Status						
Underweight	0	3 (12%)	0	2 (6.3%)	1 (6.66%)	8 (27.6%)
Normal weight	14 (93.3%)	20 (80%)	13 (86.7%)	28 (87.5%)	13 (86.66%)	14 (48.3%)
Overweight	1 (6.7%)	2 (8%)	1 (6.7%)	2 (6.3%)	1 (6.66%)	7 (24.1%)
Obesity	0	0	1 (6.7%)	0	0	0
Education						
Public	4 (26.7%)	11 (44%)	10 (66.7%)	27 (84.4%)	3 (20%)	24 (82.8%)
Private	11 (73.3%)	14 (56%)	5 (33.3%)	5 (15.6%)	12 (80%)	5 (17.2%)
Study field (in the case	of laywomen) ^a					
Humanities		2 (8%)		12 (37.5%)		14 (48.3%)
Applied social science		15 (60%)		12 (37.5%)		8 (27.6%)
Linguistic		5 (20%)		2 (6.3%)		6 (20.7%)
Agrarian sciences		0		0		1 (3.5%)
Biological sciences		1 (4%)		2 (6.3%)		0
Exact sciences		0		2 (6.3%)		0
Engineering		2 (8%)		1 (3.1%)		0
Health sciences		0		1 (3.1%)		0
Years of professional ex-	perience as dietitian					
0 - 5	7		3		8	
6 - 10	5		6		3	
11 - 15	3		1		2	
>16	0		5		2	

^a Based on Brazilian Coordination for the Improvement of Higher Education Personnel (CAPES).

Table 2

Social representations of overweight and obesity among French, Spanish and Brazilian dietitians and laywomen.

	Overweight	Obesity		
Meaning	Bad condition	Extremely bad condition		
	Ambiguous, contradictory discourse about the condition being a problem			
Definition	Subjective definition related to a bodily feeling accompanied by concerns	Illness, "serious illness"		
Consensus about	Doubts concerning its definition and effects	More consensus concerning its definition and effects		
definition and effects	Associated with psychological ill-being, suffering	Associated with several health outcomes, psychological ill-being, suffering and aesthetic		
	and aesthetic deviance	deviance		
Treatment	Ambiguity and doubts concerning the need for medical treatment and intervention	Needs medical treatment and intervention		
Stigma	Moral and normative judgment	Moral and normative judgment		
0	Individual problem (lack of discipline, effort and	Individual problem (lack of discipline, effort and emotional control)		
	emotional control)	More discriminatory and stigmatizing discourses		
		 Psychically weak and deviant person: sedentary, slow, lazy, lacking in agility, depressed, 		
		complex, lonely, anxious, self-centered person who has social deficiencies		
		 Gluttony, excessive pleasure, irrationality 		

when asked if they thought that an overweight person should always lose weight, participants put this physical condition into perspective and there was less consensus on the need for weight change. Mathilde (French dietitian, 27) said that being overweight corresponds to a weight incompatible with good health, but after she was asked if overweight patients should lose weight, her previous affirmation was contradicted: "No, no, we can be overweight and be in good health".

Overweight and obesity were both associated with psychological illbeing, suffering and aesthetic deviance. Besides, moral discourses were frequently used, especially by Brazilian interviewees, that associated these conditions with a lack of discipline and effort, and a lack of stability and emotional control (especially anxiety). Diana (Brazilian dietitian, 22) worked in a clinic specializing in bariatric surgery. According to her, being overweight was equivalent to being "*apathetic*". Laurianne (French dietitian, 28) affirmed that:

"Someone who is overweight will immediately make us think of ... carelessness, a failure ... someone who does not take control to lose weight. She will necessarily appear to be someone who is weaker than someone who is thinner and who has the strength not to gain too much weight."

In the case of obesity, these ideas were more common and derogatory, even discriminatory and stigmatizing: "Weakness, disease, indiscipline, lack of willpower and ... Lack of self-criticism" (Jana, Brazilian laywomen, 25). Individuals with obesity were perceived by the majority of informants as sedentary, slow, lazy and lacking in agility, and their eating practices were linked to gluttony and excessive pleasure:

"It's a behaviour problem, that's what I see with obese patients. They do not take responsibility and do not reach their goals, they always look for a culprit, they always find a culprit, who is not themselves. It's very much related to behaviour and gluttony, I really think that subconsciously it is about gluttony" (Vivian, Brazilian dietitian, 35).

Dietitians and laywomen frequently approached obesity from aspects related to the individual's character, and associated it with a specific deviant personality: a depressed, complex, lonely, anxious, selfcentered person who has social deficiencies, is irrational, and has no confidence or self-criticism:

"Self-centeredness, because I think that these people need to draw attention to themselves, to compensate with food and to gain visible size by gaining weight, and it's true that obese people or those who are significantly overweight that I encountered, I find it a bit difficult to speak with them, to have constructive exchanges, because they constantly bring everything back to them" (Justine, French laywoman, 23).

They judged the personality of the individual based on a previously

incorporated image and stereotypes, as if the body were a reflection and concrete evidence of internal and intellectual aspects. Their way of judging was so harsh that they sometimes apologized for their discriminatory discourse. When Mireia (Spanish dietitian, 30) was asked to discuss an image of a woman with obesity in terms of her beauty, attractiveness, body size and healthiness, she said:

"Wow ... pretty? More or less agree, no, she is not pretty, I do not agree at all that she is attractive, she is not at all healthy, does not have an ideal body, doesn't have an adequate weight. She is sick, it's surely a pathology, it's significant overweight. Anxious, greedy. Without a doubt, for me a person who reaches this weight lacks care, is slow, lazy, unruly ... Look at all the adjectives that I have used for the fat woman, I feel bad" (Mireia, Spanish dietitian, 30).

Among all the informants of the three nationalities, only 14 were overweight and one obese. Except for the case of a Brazilian dietitian who was overweight, the interviewees with overweight and obesity made rather neutral comments about these conditions, did not put the responsibility on the individual and mentioned the suffering caused by such corpulence. Furthermore, the only informant with obesity, a Spanish dietitian, viewed her body size as the result of hormone dysregulation and perceived herself to be in good health. It should also be noted that while discriminatory discourses were frequent, some informants (not only those with overweight and obesity), especially in France, associated obesity and overweight with discrimination. Informants who had experienced obesity also reported experiencing discrimination and having empathy towards individuals with obesity.

3.3. Social representations of causes of obesity

The analysis of discourses on the causes of obesity revealed four dimensions: (i) physiological, metabolic and genetic issues (pathologies, hormone dysregulation, etc.), (ii) social environment, (iii) eating/ nutritional education and (iv) individual behaviours. These dimensions were present in all three nationalities' discourses and were frequently interwoven in their social representations.

Physiological, metabolic and genetic causes were most cited by Spanish and especially French dietitians and laywomen: "not necessarily food, there is a genetic, hereditary side, there is a sedentary lifestyle and food, but it is not only food, it can have a disease side, there are diseases that can lead to overweight or obesity" (Matilde, French dietitian, 27). About half of French dietitians and laywomen mentioned genetics as a cause of obesity. In contrast, Brazilian dietitians and laywomen rarely considered genetic factors, which revealed a less multifactorial view of this problem.

Aspects linked to today's society that would prevent the pursuit of an

adequate lifestyle were also considered, such as industrialization, sedentary jobs, high prices of foods perceived as healthy, and the stress of daily life. This cause was mainly mentioned by dietitians in the three countries and by French informants in general (about half of dietitians and laywomen). Informants with overweight or obesity also tended to cite these aspects. This view partly removes individual responsibility, since the individual is the victim of a system and it is the latter that must be transformed:

"The current civilization, our current lifestyle is not at all in agreement with our body, in fact, that's because we need to take more time to eat, we are stressed, the issue is what is eaten now, and the food industry that focuses more on profit than the health impact of the products they supply us" (Emanuelle, French dietitian, 26).

Another cause mentioned almost exclusively by French dietitians and laywomen was the eating education given to children by their parents: "education in the sense that if your parents have been feeding you badly since you were little, even if you have no psychological problem, you will be fat and that's how it is" (Laurianne, French Dietitian, 28). In these discourses, obesity was seen as a construction that begins in early childhood and is maintained throughout life. Responsibility was transferred from the obese individual to the parents. In some cases, the informants directly imagined these parents as overweight and obese individuals: if the caregivers are overweight/obese they will not provide adequate nutritional education.

In all three countries, obesity was seen as the consequence of individual behaviour by more than three quarters of informants: a lack of control, effort, willpower and discipline, often associated with a psychological problem. However, seeing obesity as the result of a psychological problem did not prevent a discriminatory, stigmatizing view, because the person was labelled as psychically weak and deviant:

"I think there is laziness to do physical activity or even eat better. There is also a psychological factor, most obese people get into a cycle of 'oh I'm sad, I'm fat, I'm going to eat, I have few friends ... '. Not all fat people are necessarily like that, but most of them end up compensating for their food. There's even sadness, because all fat people want to be thin, everyone. They want to be thin, but they don't want to do anything to lose weight (...) I think that all of this is due to a lack of willpower" (Júlia, Brazilian dietitian, 27).

Insufficient physical activity and a sedentary lifestyle were mainly mentioned by dietitians, while poor eating behaviour was the most common idea among the majority dietitians and laywomen. This association was linked to the idea that it would be enough to stop eating in order to lose weight, an idea that is implied in two dietitians' remarks about "there were no obese people in the concentration camps":

"It's simple, it's lamentable but there is the reflection that a person would never come out obese from a concentration camp and the people had different genes, there was no food, that is to say ... your body may be different (...) it has a genetic distribution, but the excess weight is completely controllable. (...) I don't believe in genetics" (Graciela, Spanish dietitian, 56).

In the case of Brazilian dietitians and laywomen, discourses of individual responsibility occupied a central position. During the interviews, they were more comfortable than the French and Spanish informants in criticizing bodily deviance, almost as if it were "normal" and inevitable to point fingers at this physical condition.

Fig. 1 summarizes the dimensions mentioned by dietitians and laywomen to explain the causes of obesity. In each box, we indicated the group of informants who mentioned each cause most frequently.

3.4. Fatphobia in the dietitian's office

Dietitians often perceived patients with obesity to be "bad patients": "the obese patient, for example, after a month you almost lose the patient" (Rosana, Brazilian dietitian, 33). Dietitians described them as "more difficult to treat" because they "are out of control", "are irrational", "do not think" and "do not have self-awareness". Most of them blamed patients for the difficulties and failure of their treatments, without questioning the principles behind their treatment, the contents approached, and the way they give advice or bond with the patient. The prejudices of Helena (Brazilian dietitian, 27), for instance, impact the relationship with her patients:



Fig. 1. Social representations of the causes of obesity among French, Spanish and Brazilian dietitians and laywomen.

Helena: "Treating the obese is very difficult, it is tiring, it is much easier with a person who wants to be slim, athletic, than with an obese person with very low self-esteem, who eats very badly, who does not know why she eats, who does not know why she puts on so much weight, it is difficult to change her image. The obese person who is very obese does not see her true size, she has no idea of her size."

Interviewer: "You said she doesn't know what she eats, do you think she's less informed?"

Helena: "No. She is not ashamed: 'Since I am fat I can eat'. They have the same information as everyone else. They eat with an awareness of what they are eating, no one eats a 'pão de queijo' [cheese bread] because she does not know whether she can or not. She eats it because it's delicious and she wants it, but it's pure fat".

They also reported that the process of changing these patients' eating practices can be more difficult, either because they are people who do not want to change, or because they are already tired of their long history of diets or because their bodies are already resistant to treatment:

"Sometimes I feel like it's a lack of will on their part ... either they have followed diets badly so far or they have done nothing, but there are many obese patients who have done a lot of diets, or the diet didn't work because it was too restrictive and it's not their fault, but sometimes there are ... they don't want to change at all, they like how they live now, so it is a little lack of will" (Corine, French dietitian, 28).

"Obesity in adults, as a dietitian of adults, I see that it is impossible to lose weight. We are not talking about overweight, but obesity. Overweight is one thing and obesity another, because there comes a point where you weigh 120 [kg], pfff, it's impossible, my cases here, what I see, it's impossible, an obese person is predestined to be obese for life, for psychological reasons" (Alba, Spanish dietitian, 33).

Although the dietitians were frequently employed to treat weight issues, they also found themselves powerless to treat obesity without the technical capacity and expertise needed to deal with these clinical cases. The follow-up of patients with obesity became a tiring process that could trigger a feeling of dissatisfaction in the professional. It is important to note that all dietitians of the three nationalities reported not having received sufficient training in their academic education on how to deal with fat bodies, as well as on the management of the less "biological" aspects of the relationship with the body, such as social and psychological aspects.

"We had six hours of what they called humanities. Training is approached only from a medical, chemical, biological, caloric point of view and after that they say 'we must take into account the person as a whole'. We have not addressed the issues related to everything in a person who has a problem in relation to that [social and emotional aspects]. So, this was discovered during professional practice" (Angélique, French dietitian, 34).

Therefore, if the professionals have internalized fatphobic values and have not received the appropriate training, they risk failing in treating these patients and they may even participate in discrimination. For Juliette (French laywoman, 25), who has been overweight since her adolescence, her experiences with five dietitians were disappointing, because she felt despised and a "*lost cause*". Thus, these situations of stigmatization can have a counterproductive effect.

4. Discussion

Comparative studies on weight stigma are still rare (SturtzSreetharan et al., 2021; Puhl et al., 2015, 2021) and this study was the first to compare social representations of overweight and obesity among dietitians and laywomen in three countries that are not usually analysed in research on weight stigma: Brazil, France and Spain. Our comparative approach helps to reach a more global view of the weight stigma phenomenon and contributes to bring two original analytical perspectives: a cross-cultural comparison, especially considering a group of health professionals, and a comparison between lay and professional discourses. These topics will be further discussed below.

The results highlighted similarities among all three nationalities, particularly concerning fatphobic attitudes. The findings confirmed several studies (Harvey et al., 2002; Schwartz et al., 2003; Budd et al., 2011; Cori et al., 2015; Ulian et al., 2020; Puhl et al., 2021) and showed that, despite recognition of different causes of overweight and obesity, these conditions are mainly perceived as an individual problem, the result of a lack of self-control, not only literally, but also symbolically (Lupton, 2013). Most informants from all nationalities perceived individuals with obesity as irrational people who do not think properly. Rationality and rationalization are attributes valued in the contemporary era, especially biomedical scientific rationality, which has greater legitimacy in thought about the body and food, and defines the paradigms of modern nutrition (Coveney, 2006; Poulain, 2009). The lean and controlled body has become a sign of modernity (Le Breton, 2013) and rationality (Lupton, 2013).

In the interviewees' social representations, people with obesity seemed to be deviants, not only in terms of medical and aesthetic norms, but also in relation to what is considered the model of a modern productive citizen: a civilized, rational, reflective individual (Giddens, 1991; Lupton, 2013). This perspective places people with obesity in a position of social, moral and intellectual inferiority. It reveals a dehumanizing discourse, bringing them closer to the imaginary of animality: irrational beings who do not control their instincts. According to Forth (2015), since ancient times, "eating too much" has raised the spectre of "savage", producing analogies between gluttony/fatness and animal bodies and behaviours. These ideas have been reinforced since the early modern era as Westerners began to claim their status of clean and self-contained, outside of the cycles of organic life.

These perceptions ignore the fact that the social context influences dietary and bodily practices (Germov and Williams, 1996). They are associated with the idea that these conditions are controllable, which increases negative attitudes towards people with excess weight (Joslyn and Haider-Markel, 2019) and moral condemnation (Ringel and Ditto, 2019). The majority of dietitians and laywomen thus reduced the complexity of these conditions by adopting a simplified perspective that presents a moral character based on internalized stereotypes. Studies analysing how the exposure to different cultural frames related to obesity in news shapes attitudes towards obesity indicated that, compared to individuals who read articles reporting Health at Every Size® (HAES®) or Fat Rights, those who read articles focusing on Public Health Crisis and Personal Responsibility expressed more negative attitudes (Frederick et al., 2016). Therefore, to reduce weight bias, it could be important to not promote for society and for health professionals messages based on these two last frames.

Although fatphobic attitudes are internalized by all three nationalities, the cross-cultural comparative approach suggests that globalized body norms and representations are incorporated in each context through a set of values, norms and representations from each sociocultural reality. This process produces different perceptions of illnesses and of the ideal body (Saint Pol, 2010). The construction of fatphobic discourses is thus complex and modelled by cultural aspects.

Despite a significant appreciation in thinness in the three countries, especially in France (Saint Pol, 2010), Brazilian laywomen and dietitians put more emphasis on moral and individual aspects. Previous studies have shown that Brazil is a sociocultural context characterized by the presence of extreme anti-fat attitudes in the media (Vasconcelos et al., 2004) and in the general population's discourses (Araújo et al., 2018). This deeply affects Brazilian laywomen and dietitians with obesity (Araújo et al., 2015; Scagliusi et al., 2020). Therefore, the perceptions of Brazilian interviewees could be linked to the relationship with the body in this country. The body and aesthetic concerns are systematically

present in the social imaginary of Brazilians (Edmonds, 2010). In this study, Brazilian women were more likely to admit that they were concerned with aesthetic norms than other nationalities and to declare that they receive comments about their bodies from other people. Additionally, in Brazil, body changes are well considered and socially accepted. The Brazilian media exhibits "constructed" bodies and invites people to (re)think the body as a "work of art" to sculpt, trivializing voluntary bodily transformations so much that a paradigm of an autoplastic body predominates in most social classes (Malysse, 2002). Under the influence of US culture, which impacts several aspects of Brazilian life, this body culture is part of a form of instrumentalization to modernization (Edmonds, 2010). The body conception is associated with a medicalized perception of food, which is prominent among Brazilian women (Gaspar et al., 2020) and based on scientific rationality. It fosters a prescriptive, privatized and individualized relationship with food (Fischler and Masson, 2008; Poulain, 2009). This perspective increases guilt about eating and body practices, a feeling that has been detected more frequently among Brazilians than among French and Spanish. This situation favours the opinion that Brazilian informants hold: if the individual must control his body and food, s/he is also responsible for her/his deviances, such as overweight and obesity.

French and Spanish informants, who were more likely to mention causes related to physiological and environmental aspects, had a relationship with the body that was less marked by valuing individual transformations, and a relationship with food characterized by a more multidimensional approach (Gaspar et al., 2020). Moreover, it is notable that French informants were more likely to mention the role of food education given by parents. The comparison of the discourses of all three nationalities showed specific characteristics of the French relationship with food. They gave more importance to the social dimension of the eating act and its collective rituals, they mentioned more frequently the importance of food culture and the family food model. Comparing French and North American discourses, Fischler and Masson (2008) stated that, for French people, food was about sociability and commensality, with the family occupying a central position. For North Americans it was a matter of individual responsibility. In a broader comparison (France, United States, England, Italy, Switzerland and Germany), the authors revealed that for the French, more than for other nationalities, it was important to follow socially defined table manners and that the best way to have a good diet was based on tradition. Therefore, food choice in France is an issue that is related to the group, the community and the family. This characteristic of the French food model could positively contribute to the relationship to food (Fischler and Masson, 2008). However, it could also influence the perception of causes of obesity, reinforcing a conception of food education that is more restrictive and discriminatory, particularly in the case of people with obesity. This analysis could be further investigated.

The comparison between the laypeople's and the dietitians' discourses revealed that, although dietitians had a clearer view of overweight and obesity as medical categories, they usually re-signified them using social and moral values. Dietitians were also more likely than laywomen to mention the social environment as a factor leading to obesity, but they put the responsibility on the individual as much as the laywomen. Ambiguities were also evident in the dietitians' discourses, especially concerning overweight, when they referred to their own bodies and their patients' situations, and when they were talking about this condition in general. These results are similar to those of Carof (2017) for a sample of French caregivers and those of McArthur and Ross (1997) for American dietitians.

Therefore, like lay individuals, health professionals have internalized fatphobic attitudes and do not have an "objective" evaluation of fatness. Gracia-Arnaiz (2013) has also observed this situation among Spanish health professionals, with treatment failure being attributed to the patient's inability to follow recommendations and maintain self-control. Most dietitians showed a rigid, restrictive approach to the nutritional education process: their patients with obesity are incapable of changing to achieve the treatment goals and, in the case of parents with obesity, they will not be able to follow nutritional norms. Lupton (2012) noted that while medicine should be based on the scientific principles of objectivity and ethics, in healthcare professionals' interactions with their patients, value judgments are made based on gender, social class, ethnic origin, age, physical appearance and illness. These professionals have models that distinguish between "good" and "bad" patients (Lupton, 2012). As we observed, these models are used in the case of overweight and obesity and influenced by moral and social discourses. It is noteworthy that few dietitians mentioned the discrimination that people with obesity suffer. Some dietitians seemed to ignore this situation and its impacts, for example when they said that their patients with obesity were unaware of their body size and do nothing to change their situation, as if a discriminating social gaze and space structure (for example, airplane seats) does not exist that constantly reflects their appearance in their daily lives, like an invisible mirror.

More than revealing the dietitians' fatphobic attitudes, the analysis showed that these perceptions have an impact on dietitians' relationships with their patients, bringing to dietetic consultations moral and social values. The controversies and the lack of medical/scientific consensus about fatness (Poulain, 2009) may be a factor that contributes to ambiguities and the permeability of dietitians in relation to fatphobic social values. The fatphobic attitudes of dietitians can affect their empathy, their desire to help patients, their optimism about treatment and reinforce the guilt attributed to patients (Cori et al., 2015). Dietitians can thus participate in the legitimization of discrimination and stigmatization of people with overweight and obesity, and the dietetic treatment can have negative effects on the social, mental and physical health of patients.

Dietitians, who are mainly women, are themselves the target of these moral prejudices when they are overweight/obese. According to the interviewees, having a "normal" or thin body is linked to the dietitian's professional identity. Any deviation from this norm is judged negatively, which can imply marginalization and failure vis-à-vis society and their peers (Araújo et al., 2015). Therefore, dietitians with overweight and obesity carry a double burden: as women, because embodiment is gendered (Saint Pol, 2010), and as professionals.

The training of dietitians in Brazil, France and Spain is based on a technical and biological approach (Krempf, 2002; Fonseca and Frozi, 2019), without considering the complexity of health and body issues, especially the role of sociocultural factors, and without incorporate more critical approaches in their curriculums, such as the HAES® and Fat Studies (Silva and Cantisani, 2018). This perspective may limit the perception of weight issues in a critical manner. Silva and Cantisani (2018), who discussed fatphobia in the dietetic profession, identified the need to establish a dialogue between nutrition and other disciplines, such as Sociology and Anthropology, to eliminate simplistic views of body and health, and to qualify training and professional practice. Furthermore, considering that this profession is gendered, the authors suggested the inclusion of a feminist perspective to improve training, take the focus away from psychopathological approaches, and recognize the role of culture and gender to the detriment of individual. A "critical dietetic education" is necessary to decrease the gap separating conventional positivism in nutrition from studies in humanities and social sciences, bringing a multidisciplinary and transtheoretical approach (Lordly et al., 2019).

4.1. Limitations and future research

This study has limitations. First, countries do not correspond to a uniform set of individuals. Differences and inequalities between social classes, gender and regions cut across the body and health issues (Saint Pol, 2010). The results cannot be generalized to all the national territory and the comparative approach should be amplified by integrating other social groups. Furthermore, the majority of interviewees had a "normal" BMI. The informants with overweight and obesity had fewer negative

attitudes towards these conditions and were more likely to consider environmental causes and to attribute less blame to the individual. These observations, which were found in other studies among lay individuals (Thibodeau et al., 2015; Ringel and Ditto, 2019) and health professionals (Schwartz et al., 2003) including dietitians (Oberrieder et al., 1995), should be analysed further. Finally, as we did not establish an exclusion criterion regarding the dietitian's ages to increase the possibilities of finding participants, they were generally older than the lay group. This fact could differently influence their social perceptions, because younger individuals are more influenced by aesthetic norms (Saint Pol, 2010).

Our study indicates that fatphobia is widespread and should be further analysed, mainly among dietitians. An important theme for future research is how dietitians' social representations affect the treatment of patients with overweight and obesity. Moreover, it would be relevant to analyse how fatphobia is addressed during dietetic training and if new approaches, like HAES®, are discussed during this professional phase, which could reshape attitudes towards fatness. It would be important to analyse to what extent dietetic training incorporates social and cultural dimensions and to what extent it establishes a dialogue with other fields such as Anthropology, Sociology and Fat Studies, which could help trainees to question such hegemonical discourses regarding the body and people with overweight and obesity.

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Declaration of competing interest

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References

- Ajuntament de Barcelona, 2020. Anuari Estadístic de la Ciutat de Barcelona 2020. Ajuntament de Barcelona, Barcelona.
- Araújo, K.L., Pena, P.G.L., Freitas, M.C.S., Diez-Garcia, R.W., 2015. Stigma of obese dietitians in the work world. Rev. Nutr. 28 (6), 569–579. https://doi.org/10.1590/ 1415-52732015000600001.
- Araújo, L., Coutinho, M.P., Alberto, M.F., Santos, A., Pinto, A., 2018. Discriminacao baseada no peso: representacoes sociais de internautas sobre a gordofobia. Psicol. em Estudo 23 (2), 1–17. https://doi.org/10.4025/psicolestud.v23i0.34502.
- Bernabeu-Mestre, J., Pellicer, J.X.E., Galiana-Sánchez, M.E., López, E.M.T., 2016. Pasado y presente de la nutrición en España. Aliment. Nutr. Salud 23 (2), 27–38.
 Blanchet A. Gotman A. 2005. L'entretien Armand Colin. Paris.
- Blanchet, A., Gotman, A., 2005. L'entretien. Armand Colin, Paris.
 Budd, G.M., Mariotti, M., Graff, D., Falkenstein, K., 2011. Health care professionals' attitudes about obesity: an integrative review. Appl. Nurs. Res. 24 (3), 127–137. https://doi.org/10.1016/j.apnr.2009.05.001.

- Carof, S., 2017. The social representations of "fat" body: a conflictual issue between caregivers and patients. Anthropol. Santé 14 https://doi.org/10.4000/ anthropologiesante.2396.
- Cori, G.C., Petty, M.L.B., Alvarenga, M., 2015. Attitudes of dietitians in relation to obese individuals – an exploratory study. Ciência Saúde Coletiva 20 (2), 565–576. https:// doi.org/10.1590/1413-81232015202.05832014.
- Coveney, J., 2006. Food, Morals and Meaning: the Pleasure and Anxiety of Eating. Routledge, New York.
- Coveney, J., Booth, S., 2019. Critical Dietetics and Critical Nutrition Studies. Springer, Cham.
- Edmonds, A., 2010. Pretty Modern: Beauty, Sex, and Plastic Surgery in Brazil. Duke University Press, London.
- Fischler, C., 1990. L'Homnivore. Odile Jacob, Paris.
- Fischler, C., Masson, E., 2008. Manger: français, européens et américains face à l'alimentation. Odile Jacob, Paris.
- Flint, S.W., 2019. Addressing weight stigma: a timely call. Lancet Public Health 4 (7), E322.
- Fonseca, A.B., Frozi, D.S., 2019. Social and natural sciences in nutrition: studying the opinion of undergraduates from Brazil and Spain. RACA 1 (1), 28–45.
- Forth, C.E., 2015. On fat and fattening: agency, materiality and animality in the history of corpulence. Body Polit. 3, 51–74.
- Frederick, D.A., Saguy, A.C., Gruys, K., 2016. Culture, Health, and bigotry: how exposure to cultural accounts of fatness shape attitudes about health risks, health policies, and weight-based prejudice. Soc. Sci. Med. 165, 271–279. https://doi.org/10.1016/j. socscimed.2015.12.031.
- Gaspar, M.C.M.P., 2010. Normes alimentaires et image corporelle chez les jeunes femmes françaises et espagnoles. In: Master's Degree "Alimentation". Université de Toulouse, France.
- Gaspar, M.C.M.P., Muñoz, A., Larrea-Killinger, C., 2020. How would you define healthy food? Social representations of Brazilian, French and Spanish dietitians and young laywomen. Appetite 153, 104728. https://doi.org/10.1016/j.appet.2020.104728.
- Germov, J., Williams, L., 1996. The epidemic of dieting women: the need for a sociological approach to food and nutrition. Appetite 27 (2), 97–108. https://doi. org/10.1006/appe.1996.0038.
- Giddens, A., 1991. Modernity and Self-Identity: Self and Society in the Late Modern Age. Stanford University Press. Stanford.
- Goffman, E., 1963. Stigma: Notes on the Management of Spoiled Identity (Englewood Cliffs, New Jersey).
- Gracia-Arnaiz, M., 2010. Fat bodies and thin bodies. Cultural, biomedical and market discourses on obesity. Appetite 55 (2), 219–225. https://doi.org/10.1016/j. appet.2010.06.002.
- Gracia-Arnaiz, M., 2013. Thou shalt not get fat: medical representations and self-images of obesity in a Mediterranean society. Health 5 (7), 1180–1189. https://doi.org/ 10.4236/health.2013.57159.
- Grady, M.P., 1998. Qualitative and Action Research: A Practitioner Handbook. Phi Delta Kappa Educational Foundation, Bloomington.
- Grignon, C., 2015. Une sociologie des normes diététiques est-elle possible? Le cas de l'obésité. La vie des idées, pp. 1–9.

Gutin, I., 2018. In BMI we trust: reframing the body Mass Index as a measure of health. Soc. Theor. Health 16 (3), 256–271. https://doi.org/10.1057/s41285-017-0055-0.

- Harvey, E.L., Summerbell, C.D., Kirk, S.F.L., Hill, A.J., 2002. Dictitians' views of overweight and obese people and reported management practices. J. Hum. Nutr. Diet. 15, 331–347. https://doi.org/10.1046/j.1365-277X.2002.00385.x.
- Institut National des Statistiques et des Etudes Economiques, 2017. In: Comparateur de territoire. Commune de Toulouse. https://www.insee.fr/fr/statistiques/1405599?ge o=COM-31555. (Accessed 15 February 2021).
- Instituto Brasileiro de Geografia e Estatística, 2020. In: São Paulo. https://cidades.ibge. gov.br/brasil/sp/sao-paulo/panorama. (Accessed 10 February 2021).
- International Society of Aesthetic Plastic Surgery, 2016. The International Study on Aesthetic/cosmetic Procedures Performed in 2016.
- Joslyn, M.R., Haider-Markel, D.P., 2019. Perceived causes of obesity, emotions, and attitudes about Discrimination Policy. Soc. Sci. Med. 223, 97–103. https://doi.org/ 10.1038/oby.2008.636.
- Jutel, A., 2006. The emergence of overweight as a disease entity: measuring up normality. Soc. Sci. Med. 63 (9), 2268–2276. https://doi.org/10.1016/j. socscimed.2006.05.028.
- Krempf, M., 2002. In: Rapport sur l'évolution du métier de diététicien. http://www.afdn. org/fileadmin/pdf/rapport_krempf.pdf. (Accessed 9 February 2016).
- Le Breton, D., 2013. Obésités: entre stigmate et séduction. In: Le Breton, D., Pomarède, N., Vigarello, G., Andrieu, B., Boëtsch, G. (Eds.), Corps en forme. CNRS Editions, Paris, pp. 75–83.
- Lepiller, O., Poulain, J.-P., 2015. 50 ans de dialogue entre sciences humaines et sociales et sciences de la nutrition. Cah. Nutr. Diet. 50, 6S75–6S84. https://doi.org/10.1016/ S0007-9960(15)30022-5.
- Lewis, S., Thomas, S.T., Blood, R.W., Castle, D.J., Hyde, J., Komesaroff, P.A., 2011. How do obese individuals perceive and respond to the different types of obesity stigma that they encounter in their daily lives? A qualitative study. Soc. Sci. Med. 73, 1349–1356. https://doi.org/10.1016/j.socscimed.2011.08.021.

Lipovetsky, G., 1987. L'empire de l'éphémère. Gallimard, Paris.

Lordly, D., Lövestam, E., Ruhl, J., 2019. Awakening the possibilities: an exploration of critical nutrition and dietetic training and education. In: Coveney, J., Booth, S. (Eds.), Critical Dietetics and Critical Nutrition Studies. Springer, Cham, pp. 43–68.

Luton, D., 2012. Medicine as Culture: Illness, Disease and the Body. Sage Publications, London.

Lupton, D., 2013. Fat. Routledge, London/New York.

- Malysse, S., 2002. Em busca dos (H)alteres-ego: olhares franceses nos bastidores da corpolatria carioca. In: Goldenberg, M. (Ed.), Nu e Vestido. Record, Rio de Janeiro, pp. 79–138.
- McArthur, L.H., Ross, J.K., 1997. Attitudes of registered dietitians toward personal overweight and overweight clients. J. Am. Diet Assoc. 97 (1), 63–66.
- Medina, X., 2004. 'Tell me what you eat and you will tell me who you are': methodological Notes on the Interaction between Researcher and Informants in the Anthropology of Food. In: Macbeth, H., MacClancy, J. (Eds.), Researching Food Habits. Methods and Problems. Berghahn, New York/Oxford, pp. 55–62.

Mennell, S., Murcott, A., Otterloo, A.H., 1993. The Sociology of Food: Eating, Diet and Culture. Sage publications, London.

- Nicholls, S.G., 2013. Standards and classification. A perspective on the 'obesity epidemic. Soc. Sci. Med. 87, 9–15. https://doi.org/10.1016/j.socscimed.2013.03.009.
- Obara, A.A., Vivolo, S.R.G.F., Alvarenga, M.S., 2018. Weight bias in nutritional practice: a study with nutrition students. Cad. Saúde Pública 34 (8), e00088017. https://doi. org/10.1590/0102-311x00088017.

Oberrieder, H., Walker, R., Monroe, D., Adeyanju, M., 1995. Attitude of dietetics students and registered dietitians toward obesity. J. Am. Diet Assoc. 95 (8), 914–916. https:// doi.org/10.1016/S0002-8223(95)00252-9.

Poulain, J.-P., 2009. Sociologie de l'obésité. PUF, Paris.

Puhl, R., King, K.M., 2013. Weight discrimination and bullying. Best Pract. Res. Clin. Endocrinol. Metabol. 27 (2), 117–127. https://doi.org/10.1016/j. beem.2012.12.002.

Puhl, R., Wharton, C., Heuer, C., 2009. Weight bias among dietetics students: implications for treatment practices. J. Am. Diet Assoc. 109 (3), 438–444. https:// doi.org/10.1016/j.jada.2008.11.034.

Puhl, R.M., Latner, J.D., O'Brien, K., Luedicke, J., Danielsdottir, S., Forhan, M., 2015. A multinational examination of weight bias: predictors of anti-fat attitudes across four countries. Int. J. Obes. 39, 1166–1173. https://doi.org/10.1038/ijo.2015.32.

Puhl, R.M., Lessard, L.M., Pearl, R.L., Himmelstein, M.S., Foster, G.D., 2021. International comparisons of weight stigma: addressing a void in the field. Int. J. Obes. 45, 1976–1985.

Ringel, M.M., Ditto, P.H., 2019. The moralization of obesity. Soc. Sci. Med. 237, 112399. https://doi.org/10.1016/j.socscimed.2019.112399.

Saint Pol, T., 2010. Le corps désirable: hommes et femmes face à leur poids. PUF, Paris. Scagliusi, F., Ulian, M.D., Gualano, B., Roble, O.J., Unsain, R.F., Carriero, M.R., Sato, P. M., SturtzSreetharan, C., Brewis, A., Wutich, A., 2020. Before I saw a gas canister, now I see a person": post obesity-intervention body acceptance and responses to weight stigma among urban Brazilian gorda women. Hum. Organ. 79 (3), 176–191. https://doi.org/10.17730/1938-3525-79.3.176.

Schwartz, M.B., Chambliss, H.O., Brownell, K.D., Blair, S.N., Billington, C., 2003. Weight bias among health professionals specializing in obesity. Obes. Res. 11 (9), 1033–1039. https://doi.org/10.1038/oby.2003.142.

Silva, B.L., Cantisani, J.L., 2018. Interfaces between fatphobia and the professionalization in nutrition: an essential debate. Demetra 13 (2), 363–380. https://doi.org/10.12957/demetra.2018.33311.

- Sobal, J., 1998. Cultural comparison research designs in food, eating, and nutrition. Food Qual. Prefer. 9 (6), 385–392. https://doi.org/10.1016/S0950-3293(98)00029-9.
- SturtzSreetharan, C., Brewis, A., Hardin, J., Trainer, S., Wutich, A., 2021. Fat in Four Cultures: A Global Ethnography of Weight. Toronto University Press, Toronto.
- Thibodeau, P.H., Perko, V.L., Flusberg, S.J., 2015. The relationship between narrative classification of obesity and support for public policy interventions. Soc. Sci. Med. 141, 27–35. https://doi.org/10.1016/j.socscimed.2015.07.023.
- Ulian, M.D., Sato, P.D.M., Pinto, A.J., Benatti, F.B., Campos-Ferraz, P.L.D., Coelho, D., Roble, O., Sabatini, F., Perez, I., Aburad, L., Vessoni, A., Unsain, R.F., Gualano, B., Scagliusi, F.B., 2020. It is over there, next to that fat lady": a qualitative study of fat women's own body perceptions and weight-related discriminations. Saude Soc 29, e180313. https://doi.org/10.1590/S0104-12902020180313.

United Nations Development Programme, 2020. Human Development Report 2020. Communications Development Incorporated, New York.

- Vasconcelos, F.A.G., Calado, C.L.A., 2011. Profession of dietician: 70 years of history in Brazil. Rev. Nutr. 24 (4), 605–617. https://doi.org/10.1590/S1415-52732011000400009.
- Vasconcelos, N., Sudo, I., Sudo, N., 2004. Um peso na alma: O corpo gordo e a mídia. Rev. Mal-estar E Subjetividade IV (1), 65–93.
- Vigour, C., 2005. La comparaison dans les sciences sociales. La Découverte, Paris. World Health Organization, 2000. Obesity: Preventing and Managing the Global
- Epidemic, Genève.
 World Health Organization, 2006. In: Global Database on Body Mass Index. http://apps.who.int/bmi/index.jsp. (Accessed 8 June 2010).
- World Health Organization, 2016. In: Prevalence of Obesity Among Adults, Ages 18+, 1975-2016 (Age Standardized Estimated): Both Sexes, 2016. http://gamapserver.wh o.int/gho/interactive_charts/ncd/risk_factors/obesity/tablet/atlas.html. (Accessed 11 November 2017).