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Rompkovski, Cintia Stadtlober; Lourenço, Mariane Lemos; Balbi, María
Eugenia; Fedalto, Mayra Bruna; Carvalho, Denise Maria Woranovicz
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Reasons that Lead Women to Weight Loss: A Study in Southern Brazil**Motivos que Levam Mulheres ao Emagrecimento: Um Estudo no Sul do Brasil****Razones que Llevan las Mujeres a Perder Peso: Un Estudio en el Sur de Brasil***Cintia Stadtlober Rompkovski¹**Mariane Lemos Lourenço**María Eugenia Balbi**Mayra Bruna Fedalto**Denise Maria Woranovicz Carvalho**Universidade Federal do Paraná (UFPR)***Abstract**

The objective of this study was to understand why adult women in Brazil desire and attempt to lose weight. In a qualitative approach using semi-structured interviews, participants were 25 adult women in southern Brazil aged 19-59 who have tried to lose weight or modify their bodies. Thematic categories emerged: motivations and influences to lose weight, external and internal pressure to lose weight, and influences from the media and the ideal of beauty which point to factors like the media, family, and society step in nutritional education of Brazilian women. These factors influence decisions related to weight loss and pursuit of a beautiful body; this cult of thinness influences women to lose weight and makes physical appearance an essential dimension of the female identity. Programs are also needed that regulate the media in its use of models involving standards of beauty which are followed and copied by the general population.

Keywords: weight loss, motivation, media, women, Brazil

Resumo

O objetivo deste estudo foi entender por que as mulheres adultas no Brasil desejam e tentam perder peso. Em uma abordagem qualitativa, usando entrevistas semiestruturadas, as participantes foram 25 mulheres adultas no sul do Brasil, com idade entre 19 e 59 anos, que tentaram perder peso ou modificar seus corpos. Emergiram categorias: motivações e influências para perder peso, pressão interna e externa para perder peso e influências da mídia e do ideal de beleza, que apontam para fatores como mídia, família e sociedade influenciando na educação nutricional das mulheres brasileiras. Esses fatores interferem nas decisões relacionadas à perda de peso e à busca de um corpo bonito. Este culto à magreza influencia as mulheres a perder peso e faz da aparência física uma dimensão essencial da identidade feminina. São necessários programas que regulem a mídia no uso de modelos envolvendo padrões de beleza seguidos e copiados pela população em geral.

Palavras-chave: : perda de peso, motivação, mídia, mulheres, Brasil

Resumen

El propósito de este estudio fue comprender por qué mujeres adultas brasileñas desean y tratan de perder peso. En enfoque cualitativo utilizando entrevistas semiestructuradas, las participantes fueron 25 mujeres adultas del sur de Brasil, de 19 a 59 años, que intentaron adelgazar o modificar sus cuerpos. Surgieron categorías: motivaciones e influencias, presión interna y externa e influencias de los medios y el ideal de belleza. Los resultados apuntan a factores como los medios de comunicación, la familia y la sociedad, en la decisión de las mujeres entrevistadas relacionadas con la pérdida de peso y la búsqueda de un cuerpo hermoso. Este culto a la delgadez influye en las mujeres para perder peso y hace de la apariencia física una dimensión esencial de la identidad femenina. Se requieren programas para regular los medios en el uso de modelos que involucran estándares de belleza seguidos y copiados por la población en general.

Palabras clave: pérdida de peso, motivación, medios de comunicación, mujer, Brasil

¹ Endereço de contato: Rua dos Cedros, 262, Residencial das Araucárias, Alphaville Graciosa, Pinhais, PR. CEP 83327-117. Telefone: (41) 984066419. E-mail: cintia.s.rk@gmail.com

Introdução

The desire to lose weight has been investigated by a number of studies around the world. Researches in the United States explored characteristics that may affect motivation to lose weight (Befort et al., 2006), and “the act of comparing one’s body shape to others – whether peers or media figures – appears important to notions about body image and attitudes toward one’s own body” (Van Vonderen & Kinnally, 2012, p. 52). Twelve personal trainers in Australia reported that weight loss among their clients was motivated by aesthetic and social concerns (Donaghue & Allen, 2016). Canadian studies indicated that attention to body size led to unhealthy behavior and could result in psychological distress (Dionne & Yeudall, 2005), while work in Portugal analyzed the levels and types of motivation in weight management (Teixeira, Silva, Mata, Palmeira & Markland, 2012).

The 2016 Census of the Brazilian Society of Plastic Surgery (SBCP) found that demand for non-surgical aesthetic procedures increased 390% over the previous two years (Vidale, 2017). In Brazil, 60% to 87% of adults are dissatisfied with their bodies, but researchers agree that women are more dissatisfied (Laus, 2012). Women are more encouraged to alter their bodies to conform to the ideal image than men (Boas, Camargo & Rosa, 2017), and Brazil ranks second in the number of plastic surgeries worldwide. A survey of 3,200 women from ten countries found that in Brazil, only 1% of women described themselves as beautiful and 6% as pretty, and that 39% of Brazilian women were dissatisfied with their physical appearance (Strehlau, Claro, & Laban Neto, 2015). Brazil has the third-largest consumer market for beauty and aesthetics products and equipment, behind only the United States and China; the passion for aesthetics and personal care, especially among women, helped expand this sector in the country (Exame, 2018).

Physical ideals are transmitted not only by family and peers, but also by the media, which prizes a lean female body: “There exists a weight prejudice in our society that is reinforced not only by media, but also by social interactions with peers and parents” (Van Vonderen & Kinnally, 2012, p. 42). This was found in studies in western countries proving that women were more dissatisfied with their appearance and body size after seeing photographs of thin women (Laus, 2012). “Thin models and actresses appear to be the standard in today’s media, ever-present on television, and in magazines, movies, and Internet sites” (Van Vonderen & Kinnally, 2012, p. 42).

While nutrition is an ongoing and essential process for human survival (Kessler & Poll, 2018), many people follow diets in an attempt to achieve their ideal body. This is especially true for women (Marangoni & Maniglia 2017), who may be more strongly affected by advertising campaigns related to nutrition than men (Hickman, Gates & Dowdy, 1993).

Brazilian researchers have studied motivations for losing weight because of the widespread concern with image and aesthetics and the slender, slim body which is so prized (Melo & Oliveira, 2011). Even when women refer to health, the overarching idea is that a healthy body is lean and free of fat; it gives rise to the discourse of healthy weight, indicating that fatter bodies have more health problems, leading to weight loss and control (Lübeck, Sampaio & Vieira, 2016). Various studies have also analyzed the relationship between nutritional status and body image (Gerber, Forte, & Schneider, 2018), historical and current standards of beauty (Novaes & Iannelli, 2015), the prevalence of dissatisfaction with body image (Ainett,

Costa, & Sá, 2017), healthy and unhealthy weight control behaviors (Christoph et al., 2018), and the influence that fitness bloggers wield over eating habits in the Brazilian population (Magalhães, Bernardes & Tiengo, 2017). The “study of body dissatisfaction in women is important because body dissatisfaction may lead to harmful disordered-eating behaviors such as anorexia or nervous bulimia” (Van Vonderen & Kinnally 2012, p. 51).

While many people wish to lose weight, few studies have described the reasons why people undertake these efforts, or the impact initial motivation has on final results (Teixeira et al., 2012), and little is known about the influence of the media on body image with respect to how the Brazilian population eats (Laus, 2012). In this way, the objective of the current study is to understand why adult women in Brazil desire and attempt to lose weight.

Method

To evaluate why adult women in Brazil desire to lose weight, we considered appropriate to conduct a qualitative research, and to collect data through face-to-face interviews and content analysis, as detailed in the following discussion.

This study utilized a qualitative approach to understand human experiences within a given context (Stake, 1995; Creswell, 2010; Godoi, Melo, & Silva, 2010). This descriptive study (Cooper & Schindler, 2016) investigated the complexity of why women wish to lose weight, and examined the behavior of Brazilian women in a real-life environment (Eisenhardt, 1989; Richardson, 1989; Yin, 2010) at a time when these women face pressure from the media, family, and peers who reinforce the need to be thin.

Semi-structured guided interviews (using a script) were conducted with adult women aged 19-59, who live in the city of Curitiba (southern Brazil). These women had already tried to lose weight or modify their bodies through diet, physical exercise or by surgical or non-surgical aesthetic interventions. The height of the respondents ranged from 1.52 m to 1.75 m. The current weight was between 51 kg and 106 kg, and the maximum weight that the respondents already reached at the time of the interview was between 58 kg and 112 kg.

Snowball-type sampling was used to select the interviewees. In this type of sampling, participants already in contact with the researcher referred other women with the potential profile to participate in the study (Sharafizad, 2018). In this present study, the starting seeds were women at academies, universities, and churches, in a city in the south of Brazil; these women told the researchers that they wanted to lose weight and that they had all been on a diet to lose weight when they were invited by researchers to participate. It seeks to take advantage of the social networks of the interviewees to provide the researcher with a growing set of potential contacts; it finalizes by reaching the saturation point (Vinuto, 2014).

A research corpus was constructed and the number of interviewees was determined to be 25. The interviews were halted when the saturation point was reached: when the inclusion of new interviewees did not add anything new to the corpus (Bauer & Gaskell, 2015).

In order to verify the necessary adjustments and the time required to complete the survey, an initial draft of the semi-structured guided interview (script) was constructed for use in this research. The authors utilized the existing literature to formulate draft questions that were adapted and revised with input from the second author, who has extensive experience in qualitative research, and from each of the co-authors. This whole theoretical and practical

framework allowed the thematic categories to be delineated. For purposes of validation of thematic issues and categories, these preliminary questions were pre-tested with two expert respondents: a PhD in Education, and a PhD in Pharmaceutical Sciences. This procedure was adopted because “interpretation of interview data is a highly subjective process; in order to validate the analysis of the data, ideally, someone other than the author should be categorizing the responses” (Frieze, 2013, p. 1). The final version of the interview (script) was composed of demographic and socioeconomic factors, weight loss methods used by the interviewees (adapted from Pillitteri et al., 2008 and from Lübeck et al., 2016), and seven questions divided into three sections. The first section investigated motivations for losing weight, and pressure to lose weight (Van Vonderen & Kinnally, 2012). Media influences to want to lose weight, feelings of exclusion, and ideal of beauty were explored in the second section, adapted from Van Vonderen & Kinnally (2012), and from Alvarenga & Dunker (2014). The third section, risks to health and healthy eating while attempting to lose weight, and dietary restrictions was adapted from Van Vonderen & Kinnally (2012), from Pillitteri et al. (2008), and from Sarge & Knobloch-Westerwick (2017).

Each author conducted five interviews, in a total of 25 interviews. Each respondent had the opportunity to choose the place where he wanted to be interviewed; then each interviewer went to the place chosen by the respondent to conduct the interview. The standard procedures to be used to conduct such interviews were outlined in meetings. The interviews were recorded with the permission of each interviewee, and three guidelines were observed to protect the participants: (1) the benefits of the study were clarified, (2) the rights and protections of subjects were explained, and (3) informed consent was obtained (Cooper & Schindler, 2016). All interviewees signed a free and informed consent agreement.

The data were analyzed using content analysis (Bardin, 2011). This analysis goes beyond capturing the frequency of the characteristics of the message; involves understanding the respondents, their history, thoughts, art, and institutions (Richardson, 1989).

The authors manually coded the printed copies of the complete data set, deriving codes that described many characteristics of the data. The co-authors, always guided by the second author – who is a PhD in Social Psychology and a researcher in the area of Organizational Analysis and Strategy with many years of experience in conducting and supervising qualitative research – met twice a month (a total of six meetings) to discuss the codes and the themes. Such discussions were important “in order to ensure the analysis remained grounded in, and justified by, the data and was therefore credible, meaning that it was trustworthy, verisimilar, and plausible” (Sharatt, Jenkinson, Moss, Clarke, & Rumsey, 2018, p. 35).

Results

A total of 25 Brazilian women completed the survey. They had all been on some sort of diet to lose weight. All had also taken at least one other measure demonstrating concern with body image: 84% exercised, 52% took herbal remedies, 48% used medications and herbal remedies, and 40% underwent aesthetic treatments. Regarding marital status: 56% were single, 40% were married, and 4% widows; 30% had had completed or were in the process of completing graduate-level education, 60% had completed or were in college, and 10% had completed or were in high school.

Three categories emerged in the responses: 1) motivation and demands to lose weight (sub-themes: pressure to lose weight, coming from: yourself, your family, your friends, society), 2) media (sub-themes: feelings of exclusion, and the ideal of beauty), and 3) risks to health and nutrition (sub-theme: dietary restrictions)- already addressed in the theoretical framework of this research.

Category 1: Motivation and pressure to lose weight. When asked about their motivation and pressure to lose weight, 15 women reported concern with aesthetics and standards of beauty, 8 women (4 of whom were among the previous 15) replied that they were motivated by health issues. Two interviewees stated that aesthetics came before health: "That's a difficult question. . . To fit into clothes. . . firstly aesthetics, we all say no, but aesthetics comes first and health second". "To look pretty, in shape, healthy. But especially, aesthetics". The word "aesthetics" was mentioned directly by five interviewees, and one added "purely and merely physical beauty, vanity". Three women responded that they wanted to lose weight they gained during pregnancy, and 17 women (7 of whom were among the 15 mentioned above) responded that they were pressured to lose weight by family, parents, companion, friends, or classmates. One interviewee reported pressure from inside and outside her family: ". . . External demands, people telling me I was fat, I was ugly, I was enormous, it really weighed heavily on me. . . I started dating really late, nobody found me attractive, many people, even at school, didn't talk to me. . .". Another interviewee mentioned the need to be accepted: "I think it was acceptance, I think that sums it up; I would say bullying. . . I've been fighting the scale for years, I was always a fat kid and in school they called me a whale, it was no small thing". One interviewee reported that after she married, her husband used to call her "chubby", but that even as an adolescent she was pressured by her parents: "After I got married, sometimes [it came from] my husband: 'wow. . . You're chubby'". Another reported being bullied at school for being overweight, and was pressured by a boyfriend, while another mentioned criticism from her husband. Another three respondents cited pressure to lose weight from their mother, husband, and friends, as shown by the following three statements: "Why did he want to go out with me if he thought I was ugly? I also was bullied at school for being fat. When I was 9 and 10 years old I really loved chocolate". "Pressure from my husband, he wants my body to be like a film star". "Yes, from my mother, my husband, my friends, like 'You're fat, huh?'. Friends added me to a weight loss group on WhatsApp".

All the women interviewed stated that they also pressured themselves to lose weight and that they were dissatisfied with their body image.

Category 2: Media, feelings of exclusion, and the ideal of beauty. Twenty of the 25 women reported being influenced by some type of media. Four (3 of whom were among these 20) also mentioned that fashion and clothing influenced their behavior. Some examples: "I believe that [the media] affects the whole world, to tell the truth. . . In the past, in my grandfather's time, they liked fatter women, then the style started to emerge that the figure had to be extremely thin. . .". "We are certainly influenced by the media's standards of beauty. A beautiful woman is a thin woman". "The media inevitably has an influence". "For me, social networks. I realize it is not real, I know that these are people who get fat, who photoshop the figures of famous people, but I also have friends that photoshop their photos, my cousin photoshops her pictures". Some statements more specifically described the various communication vehicles

that impact decisions on weight loss and the search for a beautiful body: “[The influence is] one hundred per cent. What kind of media? Instagram, social networks, television”. “It has an impact, one hundred percent, mainly Instagram and television”. “Yes, very much. Internet, magazines, TV advertising”. “I think television is the media that has the most impact. It shapes characters: you equate yourself to a character and you want to be like them”. As for the clothes women would like to wear, other responses highlighted the media’s influence not only on self-esteem, self-perception, and the desire to wear certain clothes, but also on being successful: “I am more concerned with the aesthetics. The standard of beauty that is represented is thin, so yes, in a certain way it is. Fashions from soap operas, you want to wear the same thing and you see that it doesn’t look the same”. “. . . I couldn’t wear jeans, couldn’t wear certain clothes, so I started going on diets. . .” “For me tight clothing is uncomfortable. I like to feel like I’m thin so I can wear clothes that make me feel good”. “[It has an impact] mostly when I buy clothes, want to wear something form-fitting. Wearing something and not feeling good. . . It’s more in the summer, a dress, a bikini. . .” This last respondent added that she faced problems from the owner of the company where she worked, who thought that fat people were less capable and slower: “In the interview, the owner of the store didn’t want to hire me because she thought the uniform wouldn’t fit. The manager wanted to hire me, and I got the job. Later I learned that the owner didn’t like fat people. Since I met my sales targets, one day the owner came to apologize. . .” The feeling of exclusion was mentioned by 14 of the women interviewed, in various situations, especially at parties and in school. This can be seen in the following statements that show how the thin standard of beauty generates suffering in these women: “[I felt excluded] throughout school. They made a list of the ugliest girls in school and I was always on the list”. “Yes. A lot”. “[I felt excluded] at dances, at school. I danced with a classmate at a square dance event in school, because the teacher decided who danced with whom, if she hadn’t I never would have been chosen by the boys”. “I felt excluded by the other girls in my class”. Three more responses notably described exclusion: “During my school days, very much so [excluded]. There was a lot of bullying. This was the time to meet boys and they called you fat”. “Yes, [excluded] by my ex-boyfriend. He was a body worshiper and was even aggressive with me”. “Yes, I felt excluded, and I always will be different”. When asked about the ideal of beauty, 8 respondents mentioned Shakira, Jennifer Lopez, Gisele Bündchen, Charlize Theron, and Catherine Zeta Jones. Even the 13 women who did not mention celebrities said that their ideal of beauty was to be thin: “Unknown women on Instagram I follow, I want to have the same body”. “[My ideal of beauty] is a thin person!” “It changes from time to time. Always that woman you see everywhere. The new sensation. She’s the one”. Four of the 25 interviewees reported not having any ideal of beauty.

Category 3: Risks to health and nutrition. Thirteen of the 25 women said they believed they had risked their health in the quest to lose weight; some statements illustrate these efforts clearly. “Sometimes I didn’t eat, and restricted myself to only a few foods”. “I went 2 days without eating, only drinking water. I had hypoglycemia”. “. . . My immunity even dropped, I caught a cold, got sick, my immune system was really weakened”. “Yes, especially mental [health]. I’m already kind of agitated, it got worse”. “I used laxatives, diuretics, and only drank juice and water. I reached a point where I took 6 to 8 at a time, and thought I wouldn’t have any health problems. . . I thought that anorexia and bulimia were a good thing. I was bulimic for a while”. When asked about risks to health, eight interviewees mentioned food

restriction as a way to change their bodies and be accepted, as seen in the three responses below: “I went on a diet that made my hair fall out because of lack of nutrients. I am really vain, and I thought there was no point losing so much weight and being bald”. “I risked my health. A little while ago my cholesterol was really high from mixing too much. . . My diet was crazy!” “Yes. . . I didn’t have a menu. I just ate what I wanted to eat. If I wanted to eat pizza, I chewed gum all day and ate pizza”. Two additional statements indicate risks that are only a click away: “I go on diets without any monitoring, just the internet”. “I look on the internet: how to lose weight fast! And the links come up”. In addition to all these statements, one response mentioned eating behavior: “One thing I like to do is follow things on Instagram and Facebook, to look at healthy food. . .”.

Discussion

Three categories emerged from the content analysis (motivation/pressure to lose weight, media/exclusion/ideal of beauty, and risks to health/nutrition).

With regard to motivation and pressure to lose weight, interviewees reported that aesthetics and standards of beauty motivated them to lose weight, that “fitting in clothes” is very important, and that even despite statements otherwise, aesthetics comes before health. They also expressed pressure from other people as well as themselves and dissatisfaction with their body image, showing that the search for the ideal weight is motivated by aesthetic standards and social pressures from family and friends. Feelings of sadness, depression, and anxiety were reported, as well as strong personal demands, as well as personal dissatisfaction stemming from comparing one’s own body with others, findings which are corroborated by several Brazilian studies (Vargas, 2005; Altenburg, 2007; Saueressig & Berleze, 2010; Melo & Oliveira, 2011; Souza, Oliveira, Nascimento, & Carvalho, 2013; Ainett et al., 2017, Guimarães 2018; Taglietti, Riepe, Maronezi, & Teo, 2018).

Pressure from family and partners was very significant in how Brazilian perceive themselves as needing to be thin. It seems to be associated with family expectations related to the roles and attributes historically associated with women, and the pursuit of aesthetic standards has transformed from an optional social duty to an obligatory moral duty for women (Melo, Oliveira, 2011; Van Vonderen & Kinnally, 2012; Souza et al., 2013).

Previous studies have suggested that dissatisfaction with body image arises from comparison with other people; this concern is detrimental to personal life, professional performance, and interpersonal relationships. As women are exposed to moralized, mass-market beauty, they are motivated to try to escape the suffering associated with believing that their body size differs from the standard prized by society (Dionne & Yeudall, 2005; Novaes & Iannelli, 2015; Ainett et al., 2017; Magalhães et al., 2017; Gerber et al., 2018).

Pressure to lose weight comes not only from parents, relatives, and partners, but also from themselves. The reasons involve emotional issues such as sadness and depression, aesthetics, greater choice of clothing, and difficulty moving about, which have also been mentioned in previous studies (Saueressig & Berleze 2010; Taglietti et al., 2018) women also do not accept themselves being overweight, and report fears related to existing diseases in the family. Pressure to conform to aesthetic standards is also understood to be imposed by the society and the woman’s responsibility (Souza et al., 2013).

Women have revealed feelings of sadness, low self-esteem, and even anger when reporting how they felt when someone hinted that they needed to lose weight (Gerber et al., 2018), and symptoms of depression and anxiety have also been observed in overweight women (Altenburg, 2007; Saueressig & Berleze, 2010). “Self-esteem is a significant internal factor to consider when examining body dissatisfaction” (Van Vonderen & Kinnally, 2012, p. 45). These findings support the relevance of this topic, since these same sentiments and symptoms were found in this present study.

The media has an undeniable influence in Brazil. This is seen not only in the slim body ideal (influential models, for instance), but also in the need for women to pursue the demands imposed by society and consequent feelings of exclusion for being or feeling outside the standard and current notions of beauty. These findings are corroborated by previous studies on how marketing, advertising and models affect beliefs, attitudes, and behaviors related to body image and weight control (O’Dea & Abraham, 2001; Hill, 2006; Novaes & Iannelli, 2015; Benau, Plumkoff, & Timko, 2018; Gerber et al., 2018). “Thinness is often presented positively in the media, while being overweight is negative” (Van Vonderen & Kinnally, 2012, p. 45). Furthermore, the respondents expressed a desire to “feel good in clothing”, as fashion is closely related to the standard of beauty and media influence in this area; this also is corroborated by previous work (Exame, 2018).

The media’s impacts on self-esteem and self-image, namely the imposed standard of the slender, elegant, and successful ideal woman (Murari & Dorneles, 2018), were clearly seen in the reported discrimination against one of the respondents by her employer, who considered fat people less capable and slower. Indeed, beauty and body weight are often associated with success; this is apparent in thin-ideal media, which refers to media that contain noticeably thin female main characters (Van Vonderen & Kinnally, 2012).

Many of the interviewees reported that they were bullied for not complying with the Brazilian conception that thin women are beautiful, which is corroborated by other studies (Farhat, Iannotti, & Simons-Morton, 2010; Janssen, Craig, Boyce, & Pickett, 2004). There was some degree of competition among the women who compared their own bodies with other women and felt dissatisfied and thereby excluded. This exclusion and consequent labeling as failed or incapable is in line with previous findings. Even when they are not visible to others (for example, in interactions in social networks), women feel ashamed; they try to improve and compare themselves to people who perform better than they do. This seems to exacerbate the situation, because even women at healthy weights can be dissatisfied with their bodies: they believe that they would feel more beautiful and physically attractive if they were thinner (Souza et al., 2013; Westermann, Rief, Euteneuer, & Kolhmann, 2015; Lübeck et al., 2016; Murari & Dorneles, 2018). Even though the standards of beauty change continuously over time, they are established within society, modifying the biological behavior and psyche of the population, generating anxiety and the feeling that these goals can never be achieved (Alves, Pinto, Alves, Mota, & Leirós, 2009; Alvarenga, Philippi, Lourenço, Sato, & Scagliusi, 2010).

Television icons are often transformed into beauty myths that convey the imperative message to be thin, beautiful, and successful, and television broadcasts images of women that are examples of success (Murari & Dorneles, 2018); messages in health and fitness magazines also instill false confidence that impossible results can be obtained (Sarge &

Knobloch-Westerwick, 2017). This combines with the internet, which allows the individual to select what interests them at any time. Considering the results of recent studies demonstrating that time spent watching television and on the internet is associated with higher rates of dissatisfaction with one's own appearance (Laus, 2012), these facts are even more pertinent. The responses in this present study are in line with previous research addressing various assertions about the influence of the media on female behavior, namely linking the cult of thinness and the status of power and beauty (Gerber et al., 2018). The media plays an important role in encouraging weight loss, influencing the desire for a slim body (Bernardes, Paiva, & Borges, 2015) and making physical appearance an essential dimension of female identity (Souza et al., 2013; Dutra, Souza, & Peixoto, 2015; Novaes & Iannelli, 2015; Marangoni & Maniglia, 2017). "A sociocultural theoretical model propose that societal standards for an unreal beauty stress the importance of thinness as well as other standards of prettiness, which are difficult to reach" (Alvarenga & Dunker, 2014, p. 20).

When asked about the ideal of beauty, respondents named current celebrities, reinforcing earlier studies by showing that women are sensitive to media messages glorifying television figures as beauty icons (Murari & Dorneles, 2018). Even the respondents who did not mention a celebrity referred to unknown persons as beauty ideals, showing that the cult of the body modifies itself according to messages from the media and the beauty industry (Novaes & Iannelli, 2015).

With regard to risks to health and nutrition, previous studies have shown that women aged 25-50 are most strongly impacted by media-imposed beauty standards (Dutra et al., 2015); these women made sacrifices to achieve a standard of physical beauty conveyed by the media as fundamental for social acceptance, but risked inappropriate eating behaviors in this pursuit (Barbosa & Silva, 2016; Ainett et al., 2017; Murari & Dorneles, 2018).

In the present study, women who did not consider themselves aesthetically appealing created food restriction strategies to lose weight, as shown in previous studies (Vale & Elias, 2011); risks stemming from these practices include prolonged fasting and imbalanced diets limited to only a few foods (Brandão, Nascimento Filho, & Ogawa, 2014), in addition to eating disorders, depression, and dependent behaviors caused by concerns with the appearance. In trying to get thin, women place their health at risk (Lübeck et al., 2016).

There is a need for approval and to please other individuals, which is reported in the literature as behavior related to eating disorders and body dissatisfaction (Pedlow & Niemeier 2013), bulimia, which principally pursues a thin body (Vale & Elias, 2011), and negative psychological effects from diet which outweigh aesthetic benefits (French & Jeffery, 1994).

To achieve the supposedly ideal body, some people unsuccessfully try to lose weight and end up worsening their body image, increasing the distance between the "ideal" and the feasible (Alvarenga et al., 2010); one respondent mentioned losing her hair because of nutrient loss stemming from diets, and previous studies warned of negative outcomes associated with exposure to idealized body images, especially for people at a high risk of eating disorders and related issues (Simpson & Mazzeo, 2017).

Because the quest for the aesthetic ideal of the perfect body conveyed by the media is growing, people do not respect their limits and try to achieve the thin body prized as the standard of beauty (Dutra et al., 2015), which can create anxiety and guilt related to eating and lead to serious eating disorders (anorexia, bulimia, binge eating, overweight, and

obesity) (Floriano, Mazur, Schwarz, Benincá, & Machado, 2016). This represents a risk to those who do not consider biological individuality and reinforces the importance of individualized diets (Floriano et al., 2016; Marangoni, & Maniglia, 2017).

Some of the responses in this study illustrate the need for nutrition education, such as the report of high cholesterol, in addition to dangers that lie only a click away; this is in line with previous research asserting the importance of nutrition education to change habits and improve diet quality (Brandão et al., 2014) and even examining the potential impact of label use on food choices (Christoph et al., 2018). Women are confronted with new prototypes of beauty that determine eating patterns; they seek to obtain it quickly and easily (Bernardes et al., 2015; Magalhães et al., 2017; Schnettler et al., 2017).

This behavior demonstrates body dissatisfaction, often associated with low quality of life, and may be a precursor of negative consequences associated with body image; underweight women report high self-esteem, and overweight women report low self-esteem and personal rejection (O'Driscoll & Jarry, 2015) not to mention the positive correlation between body image and happiness in women (Stokes & Frederick-Recascino, 2003). The reports of the media's influence on eating behavior that emerged in the interviews was corroborated by the previous literature asserting that mass media, especially the internet, has brought with the pursuit of the "ideal" body (Benau et al., 2018).

Conclusions

The images transmitted by the media are illusory and often computer-altered (Laus, 2012). In order to reverse the damage caused by these images, programs and policies should be developed to reduce glorification of lean bodies by the media, eliminate the presence of digital retouching, and promote images of healthy individuals at normal weights. The main contribution of this study can be highlighted: food choices are cause for concern, and the population should be educated about the importance of a healthy diet and damage caused by inadequate diets. Furthermore, health and communication professionals play an important role as educators, promoters, and instigators to boost quality of life and raise awareness of the dangers caused by idealized images and "miracle" foods. The media, family, and social pressures had the most prominent negative effects on Brazilian women's decisions related to weight loss and the pursuit of a beautiful body. The discrimination against the women who did not fit this ideal ranged from looks of disapproval and physical and psychological aggression to various manifestations of bullying. This generated depression, anxiety, and the feeling that a thin body is impossible to achieve, and nutritional behavior focused on miracle diets obtained from friends, media and social networks. These diets require hours of fasting or poor nutrition, and pose major health risks.

The results point to the following: the motivation to lose weight is based on aesthetics, not health or quality of life. This behavior originates in the messages conveyed in various types of media, and pressure from the family and partners of the women interviewed in this study (which led to pressure from themselves), and leads to improper diet and a search for quick and easy results to achieve an unreal body that is also presented in various forms of media. It generates feelings of dissatisfaction, sadness, and unhappiness, not to mention risks to physical and mental health.

This research has some limitations related to geographical restrictions: to generalize the results, is necessary to replicate this study in more cities of Brazil. In addition, interviewing more women in each age group could yield results that show how each age group behaves on the subject.

References

- Ainett, W. S. O., Costa, V. V. L., & Sá, N. N. B. (2017). Fatores associados à insatisfação com a imagem corporal em estudantes de nutrição. *Revista Brasileira de Obesidade, Nutrição e Emagrecimento*, 11(62), 75-78. Recuperado de <http://www.rbone.com.br/index.php/rbone/article/view/487>
- Altenburg, H. (2007). Associação do sobrepeso, obesidade I e II e circunferência da cintura com sintomas de ansiedade e depressão (Dissertação de Mestrado, Universidade Metodista de São Paulo, São Bernardo do Campo, SP). Recuperado de <http://tede.metodista.br/jspui/handle/tede/1386>
- Alvarenga M. S., Philippi S. T., Lourenço B. H., Sato P. M., & Scagliusi F. B. (2010). Insatisfação com a imagem corporal em universitárias brasileiras. *Jornal Brasileiro de Psiquiatria*, 59(1), 44-51. doi:<http://dx.doi.org/10.1590/S0047-20852010000100007>
- Alvarenga, M. S., & Dunker, K. L. L. (2014). Media influence and body dissatisfaction in Brazilian female undergraduate students. *Mexican Journal of Eating Disorders*, 5(1): 20-28. doi:[http://dx.doi.org/10.1016/S2007-1523\(14\)70373-8](http://dx.doi.org/10.1016/S2007-1523(14)70373-8)
- Alves, D., Pinto, M., Alves, S., Mota, A., & Leirós, V. (2009). Cultura e imagem corporal. *Fundação Técnica e Científica do Desporto*, 5(1), 1-20. Recuperado de http://www.scielo.mec.pt/scielo.php?script=sci_arttext&pid=S1646-107X2009000100002
- Barbosa, B. R. S. N., & Silva, L. V. (2016). A mídia como instrumento modelador de corpos: Um estudo sobre gênero, padrões de beleza e hábitos alimentares. *Razón y Palabra*, 94, 672-687. Recuperado de www.revistarazonypalabra.org/index.php/ryp/article/view/732/743
- Bardin, L. (2011). *Análise de conteúdo* (Edição revista e ampliada). São Paulo: Edições 70.
- Bauer, M. W., & Gaskell, G. (2015). *Pesquisa qualitativa com texto, imagem e som: Um manual prático* (13a ed.). Petrópolis: Editora Vozes.
- Befort, C. A., Greiner, K. A., Hall, S., Pulvers, K. M., Nollen, M. L., Charbonneau A., . . . Ahluwalia, J. S. (2006). Weight-related perceptions among patients and physicians: How well do physicians judge patients' motivation to lose weight? *Journal of General Internal Medicine*, 21(10), 1086-1090. doi:<http://dx.doi.org/10.1111/j.1525-1497.2006.00567.x>
- Benau, E. M., Plumkoff, J., & Timko, C. A. (2018). Women's dieting goals (weight loss, weight maintenance, or not dieting) predict exercise motivation, goals, and engagement in undergraduate women: a self-determination theory framework. *International Journal of Sport and Exercise Psychology*, 17(6), 553-567. doi:<http://dx.doi.org/10.1080/1612197X.2017.1421683>
- Bernardes, Q. C. B., Paiva, V. A., & Borges, C. C. (2015). O crescente uso de medicamentos e produtos emagrecedores: Bases científicas x dados empíricos. *II Congresso de Ensino, Pesquisa e Extensão da UEG: Interdisciplinaridade e currículo, uma construção coletiva* (20 a 22 de outubro), Campus Pirenópolis, Goiás. <https://www.anais.ueg.br/index.php/cepe/issue/view/190>

- Boas, L. M. S. V., Camargo, B. V., & Rosa, A. S. (2017). O pensamento social de universitários sobre beleza e cirurgia estética. *Arquivos Brasileiros de Psicologia*, 69(2), 187-206. Recuperado de <http://pepsic.bvsalud.org/pdf/arbp/v69n2/13.pdf>
- Brandão, V. L., Nascimento Filho, I. D., & Ogawa, W. N. (2014). Emagrecer: Dietas da moda versus reeducação alimentar. *Revista Cereus*, 6(2). Recuperado de <http://ojs.unirg.edu.br/index.php/1/article/view/551>
- Christoph, M. J., Loth, K. A., Eisenberg, M. E., Haynos, A. F., Larson, N., & Neumark-Sztainer, D. (2018). Nutrition facts use in relation to eating behaviors and healthy and unhealthy weight control behaviors. *Journal of Nutrition Education and Behavior*, 50(3), 267-274. doi:<http://dx.doi.org/10.1016/j.jneb.2017.11.001>
- Cooper, D. R., & Schindler, P. S. (2016). *Métodos de Pesquisa em Administração* (12a ed.). São Paulo: McGraw Hill Education.
- Creswell, J. W. (2010). *Projeto de Pesquisa: Métodos qualitativo, quantitativo e misto*. (2a ed.). Porto Alegre: Artmed.
- Dionne, M. M., & Yeudall, F. (2005). Monitoring of weight in weight loss programs: A double-edged sword? *Journal of Nutrition Education and Behavior*, 37, 315-318. doi:[http://dx.doi.org/10.1016/S1499-4046\(06\)60162-0](http://dx.doi.org/10.1016/S1499-4046(06)60162-0)
- Donaghue, N., & Allen, M. (2016). "People don't care as much about their health as they do about their looks": Personal trainers as intermediaries between aesthetic and health-based discourses of exercise participation and weight management. *International Journal of Sport and Exercise Psychology*, 14(1), 42-56. doi:<http://dx.doi.org/10.1080/1612197X.2015.1016086>
- Dutra, J. R., Souza, S. M. F., & Peixoto, M. C. (2015). A influência dos padrões de beleza veiculados pela mídia, como fator decisório na automedicação com moderadores de apetite por mulheres no Município de Miracema-RJ. *Revista Transformar*, 7, 194-213. Recuperado de <http://www.fsj.edu.br/transformar/index.php/transformar/article/view/40/37>
- Eisenhardt, K. M. (1989). Building theories from case study research. *The Academy of Management Review*, 14(4), 532-550. doi:<http://dx.doi.org/10.2307/258557>
- Dino (2018, 06 de 2018). Segundo informações, mercado de estética segue em expansão. *Exame*. Recuperado de <https://exame.abril.com.br/negocios/dino/segundo-informacoes-mercado-de-estetica-segue-em-expansao/>
- Farhat, T., Iannotti, R. J., & Simons-Morton, B. (2010). Overweight, obesity, youth, and health-risk behaviors. *American Journal of Preventive Medicine*, 38(3), 258-267. doi:<http://dx.doi.org/10.1016/j.amepre.2009.10.038>
- Floriano, R. S., Mazur, C. E., Schwarz, K., Benincá, S. C., & Machado, T. W. M. (2016). Nutritional analysis of weight loss diets published in a women's magazine (Dietas para emagrecimento publicadas em um magazine direcionado ao público feminino: análise do conteúdo nutricional). *Scientia Medica*, 26(2). doi:<http://dx.doi.org/10.15448/1980-6108.2016.2.22663>
- French, A. S., & Jeffery, R. W. (1994). Consequences of dieting to lose weight: Effects on physical and mental health. *Health Psychology*, 13(3), 195-212. doi:<http://dx.doi.org/10.1037/0278-6133.13.3.195>
- Frieze, I. H. (2013). Guidelines for Qualitative Research Being Published in Sex Roles. *Sex Roles: A Research Journal*, 69, 1-2. doi: <http://dx.doi.org/10.1007/s11199-013-0286-z>

- Gerber, K. P., Forte, G. C., & Schneider, A. P. (2018). Estado nutricional e percepção da imagem corporal de trabalhadores de Porto Alegre. *Revista Brasileira de Obesidade, Nutrição e Emagrecimento*, 12(69), 59-65. Recuperado de <http://www.rbone.com.br/index.php/rbone/article/view/652/507>
- Godoi, C. K., Melo, R. B., & Silva, A. B. (2010). *Pesquisa qualitativa em estudos organizacionais: Paradigmas, estratégias e métodos* (2a ed). São Paulo: Saraiva.
- Guimarães, I. C. (2018). Estado nutricional, avaliação de transtornos alimentares e autoimagem corporal em universitárias do Rio de Janeiro. *Revista Brasileira de Obesidade, Nutrição e Emagrecimento*, 12(70), 196-204. Recuperado de <http://www.rbone.com.br/index.php/rbone/article/view/677>
- Hickman, B. W., Gates, G. E., & Dowdy, R. P. (1993). Nutrition claims in advertising: A study of four women's magazines. *Journal of Nutrition Education*, 25(5), 227-235. doi:[http://dx.doi.org/10.1016/S0022-3182\(12\)81000-4](http://dx.doi.org/10.1016/S0022-3182(12)81000-4)
- Hill, A. J. (2006). *Symposium on Nutrition and health in children and adolescents Session 3: Eating behaviour and early indicators of metabolic syndrome. Motivation for eating behaviour in adolescent girls: The body beautiful. Proceedings of the Nutrition Society*, 65(4), 376-384. <https://doi.org/10.1079/PNS2006513>
- Janssen, I., Craig, W. M., Boyce, W. F., & Pickett, W. (2004). Associations between overweight and obesity with bullying behaviors in school-aged children. *Pediatrics*, 113(5), 1187-1194. doi:<http://dx.doi.org/10.1542/peds.113.5.1187>
- Kessler, A. M., & Poll, F. A. (2018). Relação entre imagem corporal, atitudes para transtornos alimentares e estado nutricional em universitárias da área da saúde. *Brazilian Journal of Psychiatry*, 67(2), 118-25. doi:<http://dx.doi.org/10.1590/0047-20850000000194>
- Laus, M. F. (2012). Influência do padrão de beleza veiculado pela mídia na satisfação corporal e escolha alimentar de adultos (Tese da Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, Brasil). Recuperado de <http://www.teses.usp.br/teses/disponiveis/59/59134/tde-26032013-100917/pt-br.php>
- Lübeck, R. M., Sampaio, C. H., & Vieira, M. H. (2016). Antecedentes e consequentes da intenção do uso de emagrecedores. *Revista Organizações em Contexto*, 12(24), 207-325. Recuperado de <http://www.spell.org.br/documentos/ver/43244/antecedentes-e-consequentes-da-intencao-do-uso-de-emagrecedores>
- Magalhães, L. M., Bernardes, A. C., & Tiengo, A. (2017). A influência de blogueiras fitness no consumo alimentar da população. *Revista Brasileira de Obesidade, Nutrição e Emagrecimento*, 11(68), 685-692. Recuperado de <http://www.rbone.com.br/index.php/rbone/article/view/629>
- Marangoni, J. S., & Maniglia, F. P. (2017). Análise da composição nutricional de dietas da moda publicadas em revistas femininas. *Revista da Associação Brasileira de Nutrição*, 8(1), 31-36. Recuperado de <https://www.rasbran.com.br/rasbran/article/view/565>
- Melo, C. M., & Oliveira, D. R. (2011). The use of appetite inhibitors by women: An insight based on the gender perspective (O uso de inibidores de apetite por mulheres: um olhar a partir da perspectiva de gênero). *Ciência & Saúde Coletiva*, 16(5), 2523-2532. doi:<http://dx.doi.org/10.1590/S1413-81232011000500022>
- Murari, K. S., & Dorneles, P. P. (2018). Uma revisão acerca do padrão de autoimagem em adolescentes. *Revista Perspectiva: Ciência e Saúde*, 3(1), 155-168. Recuperado de <http://sys.facos.edu.br/ojs/index.php/perspectiva/article/view/209>

- Novaes, J. V., & Iannelli, A. M. (2015). A dimensão simbólica do corpo e o fenômeno social da corpulatria. *Revista Interdisciplinar da UFT*, 2(1), 176-189. doi:<http://dx.doi.org/10.20873/uft.2359-3652.2015v2n1p176>
- O'Dea, J., & Abraham, S. (2001). Knowledge, beliefs, attitudes, and behaviors related to weight control, eating disorders, and body image in Australian trainee home economics and physical education teachers. *Journal of Nutrition Education*, 33(6), 332-340. doi:[http://dx.doi.org/10.1016/S1499-4046\(06\)60355-2](http://dx.doi.org/10.1016/S1499-4046(06)60355-2)
- O'Driscoll, L. M., & Jarry, J. L. (2015). Interpersonal rejection results in increased appearance satisfaction for women who rely on body weight for self-worth. *Body Image*, 12, 36-43. doi:<http://dx.doi.org/10.1016/j.bodyim.2014.09.003>
- Pedlow, C. T., & Niemeier, H. M. (2013). Sociotropic cognition and eating disordered attitudes and behavior in young adults. *Eating Behaviors*, 14(2), 95-101. doi:<http://dx.doi.org/10.1016/j.eatbeh.2012.10.001>
- Pillitteri, J. L., Shiffman, S., Rohay, J. M., Harkins, A. M., Burton, S. L., & Wadden, T. A. (2008). Use of dietary supplements for weight loss in the United States: Results of a national survey. *Obesity*, 16(4), 790-6. doi: <http://dx.doi.org/10.1038/oby.2007.136>
- Richardson R. J. (1989). *Pesquisa Social: Métodos e técnicas*. São Paulo: Atlas.
- Sarge, M. A., & Knobloch-Westerwick, S. (2017). Mechanisms of influence for weight loss in popular women's health media: A content analysis of health and fitness magazines. *Journal of Communication in Healthcare: Strategies, Media and Engagement in Global Health*, 10(4), 260-272. doi:<http://dx.doi.org/10.1080/17538068.2017.1327128>
- Saueressig, M. R., & Berleze, K. J. (2010). Análise de influências em dietas de emagrecimento. *Psico*, 41(2), 231-238. Recuperado de <http://revistaseletronicas.pucrs.br/ojs/index.php/revistapsico/article/viewFile/5538/5319>
- Schnettler, B., Grunert, K. G., Orellana, L., Sepúlveda, J., Miranda, H., Lobos, G., . . . Etchebarne, S. (2017). Dietary restraint, life satisfaction and self-discrepancy by gender in university students. *Suma Psicológica*, 24(1), 25-33. doi:<http://dx.doi.org/10.1016/j.sumpsi.2016.12.001>
- Sharafizad J. (2018). Informal learning of women small business owners. *Education + Training*, 60(1), 82-103. doi:<http://dx.doi.org/10.1108/ET-01-2017-0006>
- Sharratt, N. D., Jenkinson, E., Moss, T., Clarke, A., & Rumsey, N. (2018). Understandings and experiences of visible difference and romantic relationships: A qualitative exploration. *Body Image*, 27, 32-42. doi:<http://dx.doi.org/10.1016/j.bodyim.2018.08.002>
- Simpson, C. C., & Mazzeo, S. E. (2017). Skinny is not enough: A content analysis of fitspiration on Pinterest. *Health Communication*, 32(5). doi:<http://dx.doi.org/10.1080/10410236.2016.1140273>
- Souza, M. R. R., Oliveira, J. R., Nascimento, E. R., & Carvalho, E. S. S. (2013). Droga de corpo! Imagens e representações do corpo feminino em revistas brasileiras. *Revista Gaúcha de Enfermagem*, 34(2); 62-69. doi:<http://dx.doi.org/10.1590/S1983-14472013000200008>
- Stake R. E. (1995). *The Art of Case Study Research*. Thousand Oaks: SAGE Publications.
- Stokes, R., & Frederick-Recascino, C. (2003). Women's perceived body image: Relations with personal happiness. *Journal of Women & Aging*, 15(1), 17-29. doi:http://dx.doi.org/10.1300/J074v15n01_03

- Strehlau, V. I., Claro D. P., & Laban Neto, S. A. (2015). Does vanity boosts the consumption of cosmetics and aesthetic surgical procedures in women? An exploratory investigation (A vaidade impulsiona o consumo de cosméticos e de procedimentos estéticos cirúrgicos nas mulheres? Uma investigação exploratória). *Revista de Administração*, 50(1), 73-88. doi:<http://dx.doi.org/10.5700/rausp1185>
- Taglietti, R. L. Riepe, S. B. Maronezi, T. B., & Teo, C. R. P. A. (2018). **Tratamento nutricional para redução de peso: Aspectos subjetivos do processo.** *Revista Brasileira de Obesidade, Nutrição e Emagrecimento*, 12(69), 101-109. Recuperado de <http://www.rbone.com.br/index.php/rbone/article/view/660>
- Teixeira, P. J., Silva, M. N., Mata, J., Palmeira, A. L., & Markland, D. (2012). Motivation, self-determination, and long-term weight control. *International Journal of Behavioral Nutrition and Physical Activity*, 9(22), 1-13. doi:<http://dx.doi.org/10.1186/1479-5868-9-22>
- Vale, A. M. O., & Elias, L. R. (2011). Transtornos alimentares: Uma perspectiva analítico-comportamental. *Revista Brasileira de Terapia Comportamental e Cognitiva*, 13(1), 52-70. doi:<http://dx.doi.org/10.31505/rbtcc.v13i1.432>
- Van Vonderen, K. E., & Kinnally, W. (2012). Media effects on body image: Examining media exposure in the broader context of internal and other social factors. *American Communication Journal*, 14(2), 41-57.
- Vargas, V. M. (2005). O peso do desejo: Discursos dos obesos mórbidos submetidos à cirurgia bariátrica. (Dissertação de Mestrado, Centro de Filosofia e Humanas, Universidade Federal de Santa Catarina, Florianópolis, Santa Catarina, Brasil). Recuperado de <https://repositorio.ufsc.br/handle/123456789/103087>
- Vidale, G. (2017, 17 de julho). Estética: Procura por procedimentos não cirúrgicos aumenta 390%. *Revista Veja*. Recuperado de <https://veja.abril.com.br/saude/estetica-procura-por-procedimentos-nao-cirurgicos-aumenta-390/>
- Vinuto, J. (2014). A amostragem em bola de neve na pesquisa qualitativa: Um debate em aberto. *Temáticas*, 22(44), 203-220. Recuperado de <https://www.ifch.unicamp.br/ojs/index.php/tematicas/article/view/2144/0>
- Westermann, S., Rief, W., Euteneuer, F., & Kolhmann, S. (2015). Social exclusion and shame in obesity. *Eating Behaviors*, 17, 74-76. doi:<http://dx.doi.org/10.1016/j.eatbeh.2015.01.001>
- Yin, R. K. (2010). *Estudo de Caso: Planejamento e métodos*. Porto Alegre: Bookman.

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About the authors:

Cintia Stadthlober Rompkovski: Master's degree in Pharmaceutical Science from the Universidade Federal do Paraná (UFPR). **E-mail:** cintia.s.rk@gmail.com, **Orcid:** <http://orcid.org/0000-0002-4163-6430>

Mariane Lemos Lourenço: PhD in Psychology from the Universidade de São Paulo (USP). Professor at the Universidade Federal do Paraná (UFPR). **E-mail:** psimari@uol.com.br, **Orcid:** <http://orcid.org/0000-0003-2887-9232>

María Eugenia Balbi: PhD in Pharmaceutical Science from the Universidade Federal do Paraná (UFPR). Professor at the Universidade Federal do Paraná. **E-mail:** bromatologia.ufpr@gmail.com, **Orcid:** <http://orcid.org/0000-0001-8210-9250>

Mayra Bruna Fedalto: Master's degree in Pharmaceutical Science from the Universidade Federal do Paraná (UFPR). **E-mail:** mayrabru@hotmail.com, **Orcid:** <http://orcid.org/0000-0001-7384-1984>

Denise Maria Woranovicz Carvalho: PhD in Production Engineering from the Universidade Federal de Santa Catarina (UFSC). Professor at the Universidade Federal do Paraná (UFPR). **E-mail:** denisemariacarvalho@gmail.com, **Orcid:** <http://orcid.org/0000-0003-3573-2650>