



## Perception of body image among candidates for aesthetic plastic surgery

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*Body image*  
*Plastic surgery*  
*Self-esteem*

### Abstract

**Introduction:** The aim of this study is to investigate the body image perception among women seeking aesthetic plastic surgery. The personality and body image of women seeking esthetic plastic surgery were investigated through the evaluation. **Methods:** The data were collected using their personal medical records and through the application of a questionnaire, the Body Shape Questionnaire (BSQ), which evaluates the level of concern about the body. In addition, the Silhouette Scale was

used, which evaluates the perception that the woman has of her own body. The variables of body mass index and silhouettes as a function of the BSQ scale were compared by analysis of variance ANOVA. **Results:** The results showed that the women used in this study had distortions of their body image perception and that the degree of concern with their body and BMI interfered in such distorted perception ( $p=0.0000$ ), which evidenced the dissatisfaction of the women with their self-image. **Conclusions:** This study demonstrated that distortions of women's perception of real body image occur and that the degree of concern with their body and BMI interferes with this perception. The increasing number of women seeking for plastic surgery evidences the dissatisfaction with their self-image.

## Introduction

Body image is defined as the image that each individual develops in his/her mind about his/her own body. Thus, it is a mental representation of the size, contour and appearance of one's

body, where a dynamic process is involved through their own perception and experiences, which are influenced by a variety of historical, cultural, social, individual, and biological factors. In addition, body image is influenced by emotional responses associated with a certain degree of satisfaction aroused by these perceptions (Ferreira, 2002; Goetz, 2008; Sante & Pasian, 2011).

Body satisfaction is the degree of appreciation that an individual has over his/her physical appearance, which can be the entire body or specific parts of it. On the other hand, body dissatisfaction refers to unfavorable opinions about one's body and has been the subject of research in recent years. Several studies seek to investigate the role of dissatisfaction in the etiology of psychological and eating disorders. However, many other factors such as social internalization, parental attention, friends and the media still need to be investigated in order to establish possible associations between these factors and the people's dissatisfaction with their body image (Amaral & Ferreira, 2017).

Most studies related to body image are focused on clinical variables. In addition, they target the patients with eating disorders and those undergoing bariatric or plastic surgeries. Other studies investigated body image as a secondary aspect involved in the quality of life of patients and their eating behavior (Amaral & Ferreira, 2017; Lofrano-Prado et al., 2009; Munhoz et al., 2011; Timmerman et al., 2010).

The concept of a beautiful body has been modified over the years, in which the media-induced beauty patterns have established an exaggerated cult to an “ideal” body pattern (beautiful, lean, muscular and healthy) being more and more thin for females and stronger for males. For this reason, young people have become overly concerned about their weight and in constant search for the ideal body, whose non-acceptance of their bodies can lead them to feel excluded from social life (Ribeiro & Oliveira, 2011).

The real body or how it is perceived has been strictly related to the individual’s psyche, with conflicting reactions arising in the

individual himself, where plastic surgery has been understood as an outlet for the dissatisfaction and imbalance of the body-mind connection. Aesthetic plastic surgery aims to improve the shape, whereas restorative plastic surgery aims to restore function and restore the shape, thus presenting an aesthetic component with the ultimate goal of achieving a balance between the organic and psychic structure of the human being, which is defined by the World Health Organization (WHO) as the individual’s perception of their position in life, in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (Ferraz, 2007, Tiggemann, 2002).

Disruption of body image can lead to disturbances and dysfunctions related to physical appearance, which is usually associated with adverse psychosocial consequences, including eating disorders, depression, anxiety and compromised social and sexual functioning, leading to a compromise of the overall quality of life (Blakey et al., 2017).

Therefore, cosmetic surgery is the leading strategy in achieving the perfect body followed by physical activity, restrictive diets, vomiting induction and the use of laxatives, diuretics and anabolic steroids (Sarwer & Cash, 2009).

In this regard, some questions are raised: Is the dissatisfaction with the body image a result of a negative self-assessment that is influenced by events experienced by the individual alone or within his group? Do patients who seek plastic surgeries have real knowledge of their body dimensions and expectations of results? Therefore, this current study aims to investigate the perception of body image by women seeking aesthetic plastic surgery.

### **Methods**

A descriptive and quantitative cross-sectional study was conducted, where the personality and body image characteristics of women seeking aesthetic plastic surgery were investigated. 40 female applicants aged between 25 and 55 years old who had not performed cosmetic surgery in the

abdominal area (liposculpture and or lipoabdominoplasty) were individually evaluated. Women who had a diagnosis of mood disorders, who had given birth in less than a year and those who were in the process of marital separation or separated in less than one year were excluded.

This project was submitted to the Research Ethics Committee under the process # 1,108,621. The women were previously informed about the research and an Informed Consent Form was signed. This form was designed according to the National Health Council standards under the protocol 466/12 and it was read in its entirety in order to resolve any doubts about the study. At the end, the patient had the option to accept or refuse participating in the research.

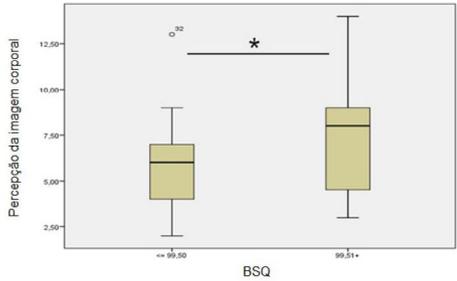
The data were collected using medical records and through a questionnaire named Body Shape Questionnaire (BSQ). Developed by Cooper et al (1987), this questionnaire investigates the levels of concern about the person's body. In addition, the Silhouette Scale was used in this study. De-

veloped by Kakeshite and Almeida (2009), it investigates the perception that someone has about his/her own body.

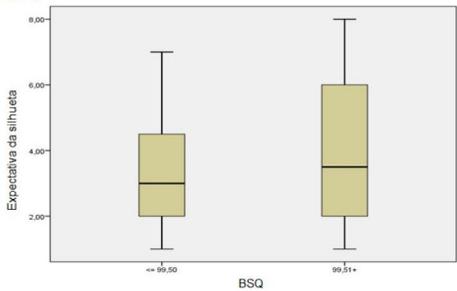
The collected data was added into the STATA software with subsequent checking for consistency of typing. First, a descriptive analysis of all variables was performed, where body images were compared by paired t-test. The variables BMI, silhouettes and body weight were compared by analysis of variance (ANOVA). For the comparison of the body images according to the abdominal circumferences, the t-test was used for independent samples. For all tests, values of  $p < 0.05$  were considered significant.

### Results

The assessment of the degree of concern of the participants with their bodies through the application of the BSQ showed that a statistically significant ( $*p = 0.040$ ) difference was observed in relation to the perception of the body image (Figure 1), although the expectation of the silhouette showed no significant difference (Figure 2).



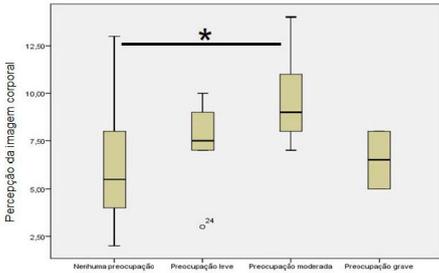
**Figure 1:** Relationship between the degree of concern of the body and the perception of the body image.



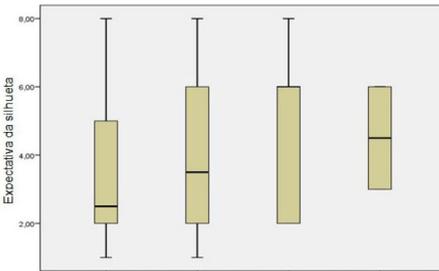
**Figure 2:** Relationship between the degree of concern of the body and the expectation to be acquired after surgery.

After evaluating each BSQ grade separately, it was observed that the grade entitled “moderate degree of concern” of body image has the most distorted perception of the image when compared to the “no concern” ( $*p = 0.021$ ), whereas no overlap with the other categories “light” and “severe” is observed (Figure 3). The same is

not observed with respect to the expectation of the silhouette to be acquired (Figure 4).

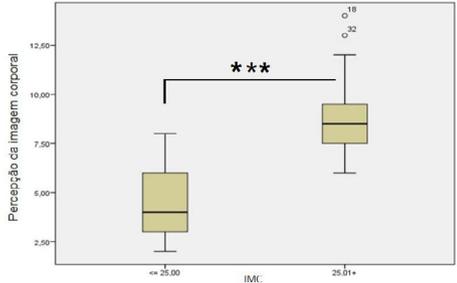


**Figure 3:** Relationship between each degree of concern with the perception of body image.

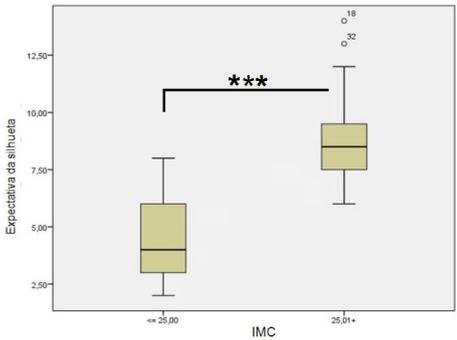


**Figure 4:** Relationship between the grades of the degree of concern with the body and the expectation of the image to be acquired after surgery.

The evaluation of the silhouette scale showed that this parameter influences on the perception of the body image (\*\* $p = 0.0000$  / Figure 5) and on the expected body silhouette to be acquired after surgery (\*\* $p = 0.0000$  / Figure 6).



**Figure 5:** Relationship between BMI and body image perception.



**Figure 6:** Relationship between BMI and the expectation of the silhouette to be acquired after surgery.

## Discussion

Of the 40 patients evaluated, an average BMI of 25.83 was attained, which corresponds to an overall overweight. When the statistical evaluation of the data was performed, a strong correlation between BMI and satisfaction with body image was observed.

The dissatisfaction reported by the subjects can be justified by the fact that people who are overweight have discredit of their own image and therefore, they undergo a condition stigmatized by society, which favors the feelings of body dissatisfaction (Damasceno et al., 2005).

Simas; Macara; Melo, (2014) evaluated body image and its relation with weight and BMI among Brazilian dancers. They demonstrated that even though the mean weight is within normal limits, when the body image perception was evaluated by the silhouette scale, dissatisfaction and desire to lose weight were evidenced, which shows that less weight is imposed on these professionals.

Martins et al (2010) investigated body image dissatisfaction among teenagers, correlating it with body adiposity. The results showed that the degree of dissatisfaction with body image increased as BMI was increased, which indicates a strong relationship between body image and BMI. These studies reinforce how much satisfaction with body image is linked to the beauty patterns adopted by

society (Bevilacqua, 2012).

The perception of body image is influenced by psychological, social, cultural and biological aspects, where excess of body weight is a factor that strongly influences body image (Bevilacqua, 2012). Previous reports have shown that physically inactive women who are overweight are dissatisfied with their body image (Tribess et al., 2009).

Physical activities bring numerous benefits to women's health, leading to better longevity and quality of life, which manifest through physical, social and emotional well-being, therefore, raising individual satisfaction and self-esteem. The fact that physical activity leads to weight loss, it indirectly improves satisfaction with body image and therefore, increases women's self-esteem (Pascoal et al, 2006).

The ingestion of healthy foods helps to attain the optimum weight and physical form. Its effectiveness is improved when associated with physical activity, which induces a faster reduction of body fat percentage and increase of muscle mass, hence con-

tributing to an adequate body silhouette. According to Morgan et al. (2002), the frequent and long-term use of low-fat diets increase the risks for the development of eating disorders, especially those with nervous anorexia.

The non-pharmacological strategies for weight reduction include behavioral therapies, dietary orientation and physical activity. The dissatisfaction with the body due to non-compliance with those beauty patterns imposed by society has made some patients to seek for alternatives to speed up the process of weight loss such as the use of anorexics. Some reports have highlighted the abusive consumption of such drugs for aesthetic purposes (Toledo et al., 2010).

Another aspect that has strongly influenced women's perception of their bodies is the impact of the media, which promotes the exposure of bodies that are said to be ideal. Since the media induces the viewers to believe that such bodies constitute the current beauty pattern, it induces the women to realize that their bodies do not fall within the ideal pattern. Such perception leads to a dissa-

tisfaction with their body, triggering the women's desire for change with the purpose of fulfilling this pattern (Tiggemann, 2015).

Ribeiro & Oliveira (2011), have identified in their studies that the concept of a beautiful body has changed over time and that media-induced beauty patterns have established an exaggerated worship of an "ideal" body pattern (beautiful, lean, muscular and healthy), which is increasingly thinner for females and stronger for males.

Markey & Markey (2010) stated that individuals who spend more time exposed to television programs related to aesthetics and plastic surgeries are more likely to develop an interest in such procedure because of the influence that media has on their self-images.

Although most patients claim to be satisfied with the result of their bodies after surgery, many undergo repeated aesthetic procedures. This tendency towards self-acceptance seems to be a reflection of the great influence that the media has on the people's behaviour (Honigman, 2004).

Sperry (2009) demonstrated in his study that people that

watched TV shows about plastic surgeries were significantly influenced to undergo through these procedures, which corroborates the strong influence of the media over the human behavior.

Slevec & Tiggemann (2010) also found that media exposure is more prevalent in women, especially in the 15-40 age group. The perception about the body undergoes a constant reconfiguration depending on psychological, sociological, cultural and physiological factors. Thus, the representativeness of the body achieves new meanings that can be interpreted and internalized in different ways depending on the historical, political, economic and geographical context in which the individual is inserted. The perception of the aged body comes from the normal and physiological changes that includes the presence of wrinkles, changes in the silhouette and in the body fat percentage, whose characteristics diverge from those idealized by the modern society.

The greater the degree of concern with the shape and dimensions of the body, the greater the possibility of frustration, there-

fore, by comparing their body with those that fulfill the modern pattern, a negative impact on people's self-esteem can be attained. Body dissatisfaction has often been associated with the discrepancy between perception and desire regarding body size and shape (Almeida et al., 2005).

The age-related changes in the body manifest more intensely after the fourth decade of life. Body aging has been minimized with the use of cosmetics as well as aesthetic procedures such as botox, laser and peeling. These procedures give a more youthful appearance to women and they are considered one of the main factors that contribute to the elevation of women's self-esteem.

Sarwer & Cash (2008) emphasize the importance of body image as a central element in the motivation for plastic surgery. Usually, dissatisfaction with the body image becomes so important that it triggers several image, emotional and eating disorders.

Therefore, it becomes evident that body image is a complex multi-component phenomenon that is influenced by gender, eth-

nicity and social culture, where a diversity of terminologies must be applied according to the context studied (Cash & Smolak, 2011). It is a multidimensional and dynamic concept in which the individual forms images or ideas of his/her own body through the experience, concept and behavior acquired during the course of his/her life. In addition, body image can be defined as the relation between the body and cognitive processes, such as individual and/or social beliefs, values and attitudes (Petrotski et al., 2012).

## 5. Conclusion

This study demonstrated that distortions of women's perception of real body image occur and that the degree of concern with their body and BMI interferes with this perception. The increasing number of women seeking for plastic surgery evidences the dissatisfaction with their self-image.

**Author disclosure statement**

The authors have no commercial interest related to this manuscript and there are no conflicts of interest for any author of this manuscript.

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