



# Esthetic plastic surgery and (in) satisfaction index: a current view

## *Cirurgia plástica estética e (in) satisfação corporal: uma visão atual*

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### ■ ABSTRACT

The aim of this study was to conduct a literature review of studies related to esthetic plastic surgery. Thus, studies conducted on this topic were searched. The searches were performed on the Scopus, PubMed, and Medline databases. The following keywords were used: “cosmetic surgery,” “body dysmorphic disorder,” and “eating disorders.” The data were summarized in three topics: “profile of patients and motivational aspects,” “plastic surgery and body dysmorphic disorder,” and “plastic surgery and eating disorders.” We conclude that the main reason for undergoing esthetic plastic surgery is dissatisfaction with the body. In addition, body dysmorphic disorder has a high prevalence in these individuals. Moreover, even after the completion of the surgery, these individuals are still dissatisfied with their bodies. The most common plastic surgeries among patients with eating disorders are silicone breast implantation and liposuction of the abdomen. From the literature review, we can perceive the need for health care professionals to have access to information regarding this group of individuals.

**Keywords:** Reconstructive cosmetic surgical procedures; Body dysmorphic disorder; Eating disorders; Body image

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## ■ RESUMO

O objetivo da pesquisa foi realizar uma revisão de literatura de estudos relacionados à Cirurgia Plástica Estética. Dessa forma, foram analisadas as pesquisas desenvolvidas com a amostra em questão. As buscas foram feitas nas bases de dados Scopus, PubMed e Medline. Foram utilizados os seguintes descritores: “*cosmetic surgery*”, “*body dysmorphic disorder*” e “*eating disorders*”. Os dados foram sintetizados em três tópicos: “Perfil do paciente e aspectos motivacionais”, “Transtorno Dismórfico Corporal e Cirurgia Plástica” e “Transtornos Alimentares e Cirurgia Plástica”. Conclui-se que o motivo principal para realização da cirurgia plástica estética é a insatisfação com o corpo. Além disso, o Transtorno Dismórfico Corporal possui alta prevalência nesses indivíduos. Ademais, mesmo após a realização do procedimento, esses sujeitos encontram-se insatisfeitos com seus corpos. As cirurgias plásticas mais comuns entre os pacientes com Transtornos Alimentares são o implante de silicone nas mamas e lipoaspiração de abdômen. Pela revisão de literatura pode-se perceber a necessidade dos profissionais da área de saúde terem acesso às informações referentes a esse grupo de indivíduos.

**Descritores:** Procedimentos cirúrgicos reconstrutivos cosméticos; Transtornos dismórficos corporais; Transtornos alimentares; Imagem corporal.

## INTRODUCTION

Currently, the modern medicine has at its disposal advanced and numerous technologies capable of promoting the modification and alteration of the body parts via invasive and non-invasive surgical procedures. Owing to this, the number of esthetic or reparative surgical interventions has recently increased exponentially.

It is believed that the aspirations, desires, and feelings regarding the perception and body form are the main triggers for the demand of this type of clinical intervention; however, unlike some years ago, the interest in the change and alteration of the appearance of the body have become an object of desire and associated with happiness and improved self-esteem<sup>1</sup>.

Body changes tend to follow norms of beauty standards of the current culture, ranging from diets and use of remedies for weight loss and muscle gain to plastic surgeries<sup>2</sup>.

With respect to surgical interventions, the importance of plastic surgery was realized in the 20<sup>th</sup> century after the two great world wars and a large number of soldiers disfigured by lesions arising from the conflict. Since then, surgeons have been able to increase their experiences in techniques for repairing injuries, disseminating them in clinical trials and research divulged in the scientific community<sup>2</sup>.

From thereon, the importance of plastic surgery has expanded in several spheres of social and humanistic scopes, providing emotional relief to disfigured individuals submitted to reconstructive surgery<sup>3</sup>.

Since then, there was a change in the attention of the medical community and health organizations on the implementation of plastic surgeries also among undisfigured individuals. Owing to a positive appraisal, surgical intervention has become an elective procedure primarily with an esthetic purpose.

The Brazilian Society of Plastic Surgery (SBCP)<sup>4</sup> considers esthetic plastic surgery (EPS) as a type of procedure used to reshape the normal structures of the body, especially with a view to improve the appearance and self-esteem of the patient.

On the other hand, restorative plastic surgery (RPS), as its name suggests, aims at restoring abnormal structures of the body with the aim of improving organic function. In addition, it aims at providing the patient with an appearance closer to normal. Thus, the very definition of the term “plastic surgery” explains its relationship with the evaluation of the appearance and self-esteem through its purpose.

A survey conducted by the International Society of Aesthetic Plastic Surgery (ISAPS)<sup>5</sup> showed that Brazil is the leading country in esthetic surgical procedures worldwide. According to the study, the figures exceed the plastic surgeries performed in the United States, a country that led the ranking during the last few years. The

most common surgical procedures performed worldwide are as follows: implantation of breast prosthesis (15.3%), abdominal liposuction (13.9%), blepharoplasty (11.9%), liposculpture (9.1%), and rhinoplasty (8.2%).

The first placing of Brazil in the world ranking of plastic surgeries is believed to be because of the tropical climate in the country, which causes a significant exposure of the body throughout the year. In addition, there is an association by the society that lean bodies are directly related to improved health, and the opposite is a risk factor for the development of various diseases.

Currently, the performance of EPS is becoming common among Brazilians as a way of achieving the esthetic standard established culturally, i.e., the way to achieve prestige, admiration, and social status in a society.

Sarwer and Crerand<sup>6</sup> explain that the popularization of the surgical procedure can be attributed to three factors: increasing diversity of treatments with less invasive methods, bombardment of media with programs, magazines, and other communication means that show the ease of the procedure, and appearance of perfect bodies owing to plastic surgeries. In Brazil, the following factors could also be added: the ease of payment of such esthetic procedures, social ascent of some classes, and international success of Brazilian plastic surgeons<sup>7</sup>.

Body image is a construction we have in our mind about our body<sup>8</sup>. Body image distortions have become central themes in the understanding of the psychological characteristics of EPS patients. Clinical reports suggest significant increases in body dissatisfaction in patients in the preoperative period and positive improvements in the postoperative period<sup>9</sup>. Meanwhile, studies indicate the presence of comorbidities in plastic surgery patients, such as body dysmorphic disorder (BDD) and eating disorders (EDs)<sup>10</sup>.

Given the current number of esthetic surgical procedures performed in Brazil and the possible prevalence of BDD and EDs in this population, the development of this literature review is relevant. Therefore, the aim of this review is to inform and update the professionals from diverse areas who deal with EPS patients. Thus, we selected studies that addressed the following aspects of EPS: “profile of patients and motivational aspects,” “plastic surgery and BDD,” and “plastic surgery and eating disorders.”

## PROFILE OF PATIENTS AND MOTIVATIONAL ASPECTS

The profile of individuals who seek EPS reveals individuals with low levels of self-esteem and dissatisfaction with certain body parts, high defensive attitude, and greater affective sensitivity<sup>11</sup>. In addition,

narcissistic behaviors, histrionic personalities, and BDD are more common in these individuals<sup>12</sup>.

The reasons that lead to EPS are justified by several concerns, such as the quest for improved body image, need for increased self-esteem, and presence of BDD symptoms, besides personal history, involving education and cultural aspects<sup>13</sup>.

Javo and Sørli<sup>14</sup> claim that in addition to these factors, other aspects encourage the accomplishment of esthetic procedures, such as the strong influence of the opinion of relatives who have already undergone some surgery, consequences of pregnancy, and recommendation of friends. Adams<sup>15</sup> also adds expectations in the alterations in physical attributes, which, according to patients, may facilitate social relationships and emotional well-being.

Crerand et al.<sup>16</sup>, analyzing specifically breast augmentation procedures, affirm that dissatisfaction with the size or shape of the region is the main factor among women because it is related to body image dissatisfaction. Following this analysis, Solvi et al.<sup>17</sup> found that femininity is one of the factors that are involved in this dissatisfaction with appearance, followed by the following: cult of an ideal body figure, self-esteem, positive feedback from colleagues or family, use of clothes, and sexuality. However, the key motivational factors that affect decision-making for the surgery, according to the authors, are as follows: media influence, economic situation, information from individuals who have already underwent this procedure, and opinion of the partner.

Ribeiro et al.<sup>18</sup> conducted an investigation on the methodology and strategies for care with the body used by the public in a given journal and found that the association between beauty and success was always present. They also identified the construction of categories that would define the ideal body, how to reach this ideal, and the importance of presenting this ideal. Some of the strategies that would achieve this ideal body were as follows: balanced diet, regular practice of physical activities, and performance of plastic surgeries.

The influence of the media, body dissatisfaction and EDs, and high body weight are significant predictors for decision-making to undergo an EPS<sup>19</sup>. Markey and Markey<sup>20</sup> found that individuals who are more exposed to television programs related to esthetics and plastic surgeries are more vulnerable to develop an interest in such a procedure. Corroborating these findings, Nabi<sup>21</sup> explains that the dissemination of this type of television programming becomes responsible for social comparisons and internalization of the ideal body by viewers, leading to increased body dissatisfaction.

Through their research, Von Soest et al.<sup>22</sup> and Rubesa et al.<sup>23</sup> showed an improvement in the part

of operated patients with regard to satisfaction with their appearance after plastic surgery. In this sense, de Brito et al.<sup>24</sup> add self-esteem and mental health to the positive impacts on body image after six weeks of surgery. However, it was found that emotional conflicts, such as depression and anxiety, did not disappear after the procedure<sup>23</sup>.

In relation to patients undergoing rhinoplasty surgeries, Cingi et al.<sup>25</sup> state that the levels of body dissatisfaction, as well as the levels of anxiety, decreased significantly both in men and in women. Another significant advance in relation to anxiety and self-esteem for the altered body part was evidenced by Reavey et al.<sup>26</sup>.

### PLASTIC SURGERY AND BODY DYSMORPHIC DISORDER

BDD is defined as a deep concern related to an imaginary defect in physical appearance<sup>27</sup>. Individuals who experience this disorder are extremely unhappy with their appearance or any specific part of the body. Other psychiatric disorders, such as mood disorders and obsessive compulsive disorder, can also affect these individuals<sup>13</sup>.

The core symptom of BDD is body dissatisfaction, a category diagnosed in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V)<sup>27</sup>. Individuals with BDD believe that plastic surgery can solve their problem in physical appearance. However, studies on the body satisfaction of these individuals in the pre- and post-plastic surgery periods verified that there was no improvement in this aspect of body image<sup>10,29</sup>.

Several studies<sup>30,31</sup> have aimed at assessing and understanding the profile of individuals who experience BDD. Clinical parameters, such as treatment and the prevalence of this disorder, are constant study goals in the areas of dermatology and plastic surgery. Pavan et al.<sup>30</sup> argue that plastic surgery is not indicated as a way to solve or alleviate BDD. According to the authors, the best treatment for these individuals should be with the use of serotonin reuptake medications and cognitive behavioral therapy.

Pollice et al.<sup>31</sup> and Callaghan et al.<sup>32</sup> found a significant prevalence of BDD in patients who already had plastic surgery. The authors confirm the importance of a diagnosis by psychiatrists in the preoperative and postoperative periods as a way of avoiding plastic surgery in cases in which the best treatment is therapy.

Buhlmann et al.<sup>33</sup> analyzed the prevalence of BDD and the behavior of a representative sample of individuals from Germany and reported that 15.6% of individuals who experienced BDD had plastic surgery, 31% thought of committing suicide, and 22.2% spoke of suicide owing to dissatisfaction with their appearance.

Sarwer et al.<sup>9</sup> state that the majority of individuals who wish to undergo plastic surgery reported dissatisfaction with body image. As such, it is suggested that individuals who exhibit high levels of body dissatisfaction or BDD should be referred to a psychiatrist instead of resorting to a new surgery<sup>34</sup>.

### PLASTIC SURGERY AND EATING DISORDERS

EDs are characterized by a disturbed eating pattern, pathological control of body weight, disorders of body shape perception, and morbid fear of gaining weight or becoming obese, accompanied by inadequate compensatory alternatives for body mass control, such as induction of vomiting, medication misuse (diuretics, appetite suppressants, laxatives, and anorexigenics), severe diets, strenuous physical exercises, and plastic surgery<sup>35</sup>.

Body dissatisfaction is also considered one of the main triggering factors of EDs. Saariniemi et al.<sup>36</sup> state that the surgical procedure is able to decrease the risk of EDs, in virtue of the improvement in body satisfaction and self-esteem promoted by these procedures.

On the other hand, Jávo et al.<sup>37</sup> analyzed a group of women with EDs and found a high desire (50%) for completion of liposuction of the abdomen or lipoplasty.

Hrabosky et al.<sup>38</sup> explain that the disorders of self-image related to the overestimation of body size affect a large part of the individuals who experience anorexia and bulimia nervosa, which are both considered as EDs.

In agreement, von Soes et al.<sup>39</sup> state that the diagnosis of these disorders could be an important clinical predictor of the need or referral to the performance of plastic surgeries. Coughlin et al.<sup>10</sup> state that some of the most common surgeries underwent by anorexic and bulimic individuals are breast augmentation, rhinoplasty, and liposuction.

Although liposuction of the abdomen is also a common procedure in this population, not all surgeries are associated with weight and body shape<sup>37</sup>. As for the implantation of breast prostheses, Sarwer<sup>40</sup> explains that the profile of the patients consists of low weight and body fat, and therefore, reduced breast size; thus, the option for surgery would be linked to a way of not losing their femininity.

Some studies have shown positive correlations between plastic surgeries and purgative behaviors (i.e., use of laxatives, slimming remedies, and very restrictive diets) that are typical traits of individuals experiencing bulimia and anorexia<sup>35</sup>. However, the prevalence of patients with EDs who have a desire or intention to undergo EPS is uncertain. Thus, it is believed that the intervention of pre-surgical psychiatric consultations is necessary to estimate these data.

Given the above conditions, it is necessary for health professionals (psychiatrists, psychologists, nutritionists, physical educators, etc.) to take into account the consequences inherent to the desire to perform surgical interventions of an esthetic nature on the part of their patients and clients and to provide guidance or referral necessary for the development of the best strategies for the biopsychosocial well-being of individuals seeking changes in physical appearance.

## CONCLUSION

The studies reviewed allow the illustration of the current picture on plastic surgery and some important issues regarding the understanding and effects of surgery with regard to the profile of the patients and presence of BDDs and EDs.

Body dissatisfaction is pointed out as one of the main reasons for the desire to undergo EPS. Dissatisfaction with the body, when excessive, can become an image disorder, such as BDD, further increasing the desire for surgical interventions to “fix” a body “defect.” In addition, esthetic procedures are not able to alleviate the symptoms of BDD or decrease the levels of dissatisfaction in these individuals.

Although there are few studies on EDs in these patients, there is a tendency for them to undergo esthetic surgical procedures. Furthermore, the most sought EPSs are liposuction of the abdomen and implantation of breast prosthesis with the objective of reducing body size and restore the femininity of patients.

## COLLABORATIONS

- FDC** Analysis and/or interpretation of data; statistical analysis; final approval of the manuscript; conception and design of the study; completion of surgeries and/or experiments; writing the manuscript or critical review of its contents.
- PHB** Final approval and drafting of the manuscript or critical review of its contents.
- STP** Final approval and drafting of the manuscript or critical review of its contents.
- MECF** Final approval and drafting of the manuscript or critical review of its contents.

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