

The Impact of Aesthetic Surgery on Body Image and its Implications for Mental and Physical Health

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We read with extreme interest the editorial by the Editor-in-Chief of the *Journal* entitled “Could Aesthetic Surgery Impact Alzheimer’s Risk?”¹ In this article, Dr Nahai brings to our attention the potential association between the positive outcomes of aesthetic surgery procedures and improved physical and mental health, with a special regard to the elderly population. He explains that this physical and mental health improvement can be achieved through enhanced body image associated to enhanced self-esteem and life optimism, proven benefits of cosmetic surgery. Consequently, he advocates a more aggressive role for aesthetic surgeons in investigating these findings.

Accordingly, we decided to query the body of the existing literature to address the following questions: first, is there evidence that body image improvement impacts patients’ overall health? Second, is there evidence that cosmetic surgery impacts body image? If so, how?

A search on PubMed/Medline was performed in February 2016 using the following algorithm: (body image) AND ((aesthetic surgery) OR (cosmetic surgery)) AND ((physical health) OR (mental health)). There were no restrictions on time or language of publication. Additional articles were considered after reviewing references of the publications identified initially. The inclusion criterion was clinical studies describing the association between body image and mental and physical health or between aesthetic surgery procedures and body image. Excluded from the study were publications dealing with aesthetic surgery procedures providing only preoperative assessment of patients’ body image.

Titles and abstracts were reviewed for eligibility by two independent reviewers (C.M.O. and K.M.S.), and in case of

disagreement, they were reviewed by a third researcher (D.J.S.). The full text was retrieved for evaluation of final inclusion.

In their editorial published in a 2008 issue of this journal, Sarwer and Cash observed that the term “body image” has been defined in a number of different ways, the most common of which refers to the individual’s experience of embodiment, especially self-perceptions and self-attitudes toward one’s appearance.² Sarwer and Cash also indicated body image evaluation (ie, satisfaction or dissatisfaction) and body image investment (ie, the psychological importance of one’s appearance to his or her sense of self or self-worth) as the two most central body image dimensions.²

Interestingly, these aspects were recently investigated by Gillen to demonstrate a significant association between positive body image and several mental and physical health-related indicators.³ Subjects with greater positive body image showed less depression, higher self-esteem, fewer unhealthy dieting behaviors, lower drive for muscularity, and greater intentions to protect their skin from UV exposure and damage.³ These associations were independently correlated with gender.³ According to the observations by Dr Nahai, Gillen concluded that healthcare

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providers should promote positive body image because of its potential health benefits.³

In our discipline, the impact of surgery on body image has been studied for procedures such as breast augmentation, breast reduction, abdominoplasty, and facial plastic surgery (Table 1), providing therefore a link between aesthetic surgery and physical and mental health.

A review by Crerand et al reported enhanced body image at 2 years follow up in the majority of women who received breast augmentation.⁴⁻⁹ However, detectible post-operative complications were indicated to possibly compromise patients' satisfaction and psychological benefits associated with this operation.^{6,9}

Macromastia was frequently associated with body image dissatisfaction and maladaptive behavioral changes.¹⁰ On this regard, a retrospective analysis by Glatt et al demonstrated a

significant less dissatisfaction with breasts in women who underwent reduction mammoplasty compared with a sample of breast reduction patients assessed preoperatively.¹⁰ Body image improvement and symptom relief occurred independently of preoperative body weight.¹⁰

Similar outcomes were observed in studies on abdominoplasty, which was associated with positive psychological effects, including improved evaluations of patients' overall appearance, body image satisfaction, and self-consciousness, especially in the massive weight loss population.¹¹⁻¹⁴ Lazar et al. assessed pre-abdominoplasty body perception and quality of life in 41 previously obese patients. Of these 85 percent reported, after having suffered psychologically due to their obesity, an enhancement in quality of life and admitted liking their body (54 percent) after abdominoplasty.¹⁴ Moreover, de Brito et al emphasized mental health improvement as a consequence of decrease in negative thoughts, feelings and behaviors related to appearance, as shown by SF-36 (Short Form 36 Health Survey Questionnaire) mental health scores which significantly improved 6 months after surgery.¹²

Finally, these aspects were investigated for patients undergoing facial plastic surgery. According to the recent review by Imadojemu et al, a statistically significant body image improvement after surgery was reported by four of the five studies on rhinoplasty patients,¹⁵⁻²⁰ a 20 percent overall improvement in body image was observed in the single study that analyzed the relationship between body image and rhytidectomy,^{15,17} and of the four studies that included blepharoplasty in their analysis of body image, three reported a significant improvement in their study population.^{15,21,22}

Certainly, prospective studies, including physical and mental health assessment, are required to further explore these findings. This will clarify one of the most relevant outcomes achieved by our discipline.

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Table 1. Summary of Studies on Aesthetic Procedures Correlated with Body Image Improvement (listed by year of publication)

Author (first listed), Year	Surgery Correlated with Body Image Improvement
Sihm, 1978 ⁸	Breast augmentation
Young, 1994 ⁹	Breast augmentation
Glatt, 1999 ¹⁰	Breast reduction
Cash, 2002 ⁶	Breast augmentation
Bolton, 2003 ¹¹	Abdominoplasty
Banbury, 2004 ⁵	Breast augmentation
Sarwer, 2005 ⁷	Breast augmentation/breast lift, lipoplasty, rhinoplasty, rhytidectomy, and blepharoplasty
Litner, 2008 ¹⁷	Cosmetic facial surgery
Sarwer, 2008 ¹⁹	Breast augmentation/breast lift, lipoplasty, rhinoplasty, rhytidectomy, and blepharoplasty
Crerand, 2009 ⁴	Breast augmentation
von Soest, 2009 ²¹	Breast reduction, breast augmentation/breast lift, liposuction, abdominoplasty, blepharoplasty, scar correction
Lazar, 2009 ¹⁴	Abdominoplasty
Moss, 2009 ¹⁸	Breast surgery, rhinoplasty, brachioplasty
de Brito, 2010 ¹²	Abdominoplasty
Cingi, 2011 ¹⁶	Rhinoplasty
von Soest, 2011 ²²	Breast reduction, breast augmentation/breast lift, liposuction, abdominoplasty, blepharoplasty, scar correction
Papadopoulos, 2012 ¹³	Abdominoplasty
Fatemi, 2012 ²⁰	Rhinoplasty

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