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Cosmetic surgery in inpatients with eating disorders: Attitudes and experience

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ABSTRACT

Body image disturbance is frequent among individuals undergoing cosmetic surgery and core to the pathology of eating disorders (ED); however, there is little research examining cosmetic surgery in ED. This study examined body image related measures, ED behaviors, and depression as predictors of attitudes toward cosmetic surgery in 129 women with ED. Patients who had undergone surgery ($n = 16$, 12%) were compared to those who had not. Having a purging diagnosis, linking success to appearance, and making physical appearance comparisons were predictive of more favorable cosmetic surgery attitudes. All of those who had undergone surgery had purging diagnoses and, on average, were older, had higher BMIs, and were more likely to make physical appearance comparisons and know someone who had undergone surgery. In ED, acceptance and pursuit of cosmetic surgery appears to be related to social group influences more than weight and shape disturbance, media influences, or mood.

Introduction

The pursuit of cosmetic surgery has risen sharply in recent years. Between 2000 and 2010, cosmetic surgery volume increased by almost 70% in the United States, with the documented number of surgical and minimally invasive treatments for women, who make up 90% of all surgical cases, approximating 11.5 million in 2010 (American Society of Plastic Surgeons, 2011). Body image evaluation (i.e., the level to which one is dissatisfied with one's body) and body image investment (i.e., the degree to which one's self-esteem is derived from one's body image) have been proposed as the main factors driving pursuit of cosmetic procedures (Sarwer & Crerand, 2004). Studies of college women have found that both body dissatisfaction and psychological investment in appearance are related to more favorable views of cosmetic surgery, with one study identifying increased body image investment as the strongest predictor of cosmetic surgery attitudes (Cash, Goldenberg-Bivens, & Grasso, 2005; Sarwer et al., 2005). Another study found that more pronounced body image concerns and greater acceptance of cosmetic surgery in one's social environment were the strongest predictors of motivation to undergo cosmetic surgery in Norwegian women (von Soest, Kvalem, Skolleborg, & Roald, 2006).

Disturbance in body image is an essential feature of anorexia nervosa and bulimia (American Psychiatric Association, 2000). Interestingly, although the relationship between body image disturbance and eating disorders (ED) is well documented (Cash & Deagle, 1997), as is the role of body image in the pursuit of cosmetic surgery (Cash et al., 2005; Sarwer & Crerand, 2004; Sarwer et al., 2005; von Soest et al., 2006), little research exists on the topic of ED and cosmetic surgery. Extant literature includes mostly case studies (McIntosh, Britt, & Bulik, 1994; Willard, McDermott, & Woodhouse, 1996; Yates, Shisslak, Allender, & Wolman, 1988), with authors suggesting that motivation for cosmetic surgery in persons with ED is directly related to body image disturbance (McIntosh et al., 1994). It has further been suggested that surgery temporarily diminishes underlying depressive symptoms in bulimia (Yates et al., 1988) and that surgical fat removal may be a variant of purging behavior (Willard et al., 1996). To the best of our knowledge, there has been no empirical research describing attitudes toward cosmetic surgery or past experience with cosmetic surgery in individuals with diagnosed ED. The current study aimed to determine the relationship between cosmetic surgery attitudes and experience and body image related measures, disordered eating behaviors, and depressive symptomatology among women with ED. We hypothesized that more favorable cosmetic surgery attitudes and past experience with cosmetic surgery would be associated with increased body image concerns, purging behaviors, and depression.

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Method

Participants

Participants were 129 women diagnosed with an ED and admitted to the Johns Hopkins Hospital ED Program inpatient between 2005 and 2010. ED diagnoses were made using the ED module of the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders (First, Spitzer, Gibbon, & Williams, 1997). Twenty-three percent ($n = 30$) of patients were diagnosed with anorexia nervosa restricting type (AN-R), 30% ($n = 39$) were diagnosed with anorexia nervosa binge-eating/purging type (AN-P), 25% ($n = 32$) were diagnosed with bulimia nervosa (BN), and the remaining 22% ($n = 28$) met criteria for a subthreshold ED. The vast majority of patients were Caucasian (84%), and the mean age of participants was 29.07 years ($SD = 12.42$). Participants who were diagnosed with AN-R or AN-P had a mean BMI of 16.05 kg/m^2 ($SD = 2.49$) at admission to the inpatient unit; the mean BMI for the remaining participants was 22.35 kg/m^2 ($SD = 5.24$).

Procedure

Patients consented to participate in an IRB-approved study of inpatient treatment for ED and agreed to be contacted after discharge for an assessment of outcomes. Self-report measures utilized for the current study were completed within 3–4 days of admission.

Measures

Cosmetic surgery attitudes. The Cosmetic Surgery Attitudes Questionnaire (CSAQ) was used to assess attitudes toward cosmetic surgery procedures (Sarwer et al., 2005). Attitudes were assessed on a scale ranging from 1 (strongly disagree) to 5 (strongly agree), with the mid-point reflecting "indifference"; higher scores on the CSAQ indicate a more favorable attitude toward surgery. Sample items of the CSAQ include: "I think cosmetic surgery is a waste of money" (reverse scored) and "I approve of a person's undergoing cosmetic surgery to increase their self-esteem". The CSAQ was initially designed as a 10-item scale; however, previous internal consistency analyses suggested that only eight items demonstrate adequate correlations with other scale items (Sarwer et al., 2005). As such, only those eight items were summed and used to measure attitudes toward cosmetic surgery in this study. Cronbach's α in this sample was .86.

Experience with cosmetic surgery. Six items assessed participants' experiences with cosmetic surgery ("Do you know anyone that has had cosmetic surgery?", "If yes, how many people?", "Has anyone in your family had cosmetic surgery?" "If yes, how many people?", "Have you ever had cosmetic surgery?", "If yes, how many times?"). As participants had consented to be part of a follow-up study, those who indicated they had ever had cosmetic surgery were contacted by telephone at a later date to inquire about the type of cosmetic surgery undergone.

Body image related measures. The seven-item Drive for Thinness (DT) and nine-item Body Dissatisfaction (BD) subscales of the Eating Disorders Inventory (EDI-2; Garner, 1991), a widely used self-report instrument that assesses severity of ED disturbance, were used to measure patients' fear of weight gain and preoccupation with dieting (DT) and body dissatisfaction. Items are rated on a 0–6 point scoring system and are then converted to a score ranging from 0 to 3, with higher scores indicating increased DT or BD. The psychometric properties of the EDI-2 have been well-established (Garner, 1991). In the present study, Cronbach's α coefficients for DT and BD scores were .89, and .93, respectively.

The Sociocultural Attitudes Toward Appearance Questionnaire—Eating Disorders (SATAQ-ED), a nine-item self-report instrument, was used to assess investment in culturally established standards of attractiveness (Heinberg, Coughlin, Pinto, Haug, Brode, & Guarda, 2008). The SATAQ-ED, derived from the original SATAQ (Heinberg, Thompson, & Stormer, 1995), comprises two subscales: Internalization (SATAQ-I), which measures the extent to which individuals have accepted or "bought into" culturally accepted standards of beauty, and Success (SATAQ-S), which assesses the perceived relationship between attractive appearance and achievement. Items are rated on a scale of 1–5 (completely disagree to completely agree), and higher scores indicate increased internalization and tendency to link appearance to success. Both subscale scores have shown good internal consistency (Heinberg et al., 2008). In this sample, the Internalization scores had excellent internal consistency ($\alpha = .90$) and the Success scores showed good internal consistency ($\alpha = .87$).

The Physical Appearance Comparison Scale (PACS) is a five-item, self-report questionnaire that measures the level to which individuals make social comparisons related to appearance, especially in social situations (Thompson, Heinberg, & Tantleff, 1991). Responses range from 1 to 5 (never to always), with higher scores indicating greater likelihood to make physical appearance comparisons. The PACS has shown adequate internal consistency ($\alpha = .78$) and test–retest reliability ($r = .72$); in the current study, internal consistency was good ($\alpha = .81$).

Eating disorder behaviors. Current eating behaviors, including binge eating, vomiting, laxative, diet pill, and diuretic use, exercise, skipping meals, and restricting food portions were assessed on self-report items querying frequency of each behavior in the 8 weeks prior to assessment, ranging from never (1) to several times per day (7).

Depressive symptomatology. The Beck Depression Inventory (BDI) is a 21-item measure designed to assess severity of depressive symptomatology in adolescents and adults (Beck & Steer, 1987). BDI total scores range from 0 to 63, with higher scores indicating greater symptomatology. The BDI has good internal consistency in clinical ($\alpha = .86$) and nonclinical samples ($\alpha = .81$). In the current eating disorder sample, Cronbach's α coefficient was .91.

Data Analysis

Data were analyzed using SPSS 17 (SPSS Inc., Chicago, IL). The potential relationships between relevant demographic, body image, and clinical variables and cosmetic surgery attitudes were assessed using a hierarchical linear regression model with age, admission BMI, and diagnostic subtype entered in the initial block, and DT, BD, SATAQ-I, SATAQ-S, PACS, and BDI scores in the second block. Patients were then dichotomized into one of the two groups based on their response to the question: "Have you ever had cosmetic surgery?" Chi-square tests of independence were conducted to examine the relation between participants' personal experience with cosmetic surgery and categorical variables. Student's t-tests were used to compare these two groups for continuous dependent variables. As these two groups had a disparity in sample size, the variances for each group were examined. If the variances were dissimilar, a t-test with unequal sample size was conducted. Analyses of covariance were used to examine the effect of experience with cosmetic surgery on dependent variables of interest (DT, BD, SATAQ-I, SATAQ-S, PACS, and BDI). Covariates in these analyses included admission BMI, age, and diagnostic subtype.