Motivations, preoperative, and postoperative well-being associated with cosmetic surgery

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2008
Dedication

I would like to thank my mother, father, and friends for all of their support.
Acknowledgements

I would like to thank my advisor, Professor April Gardner, MSBS, PA-C, for all her help, guidance, and motivation throughout the process of writing this paper. Without her assistance throughout this process, it would have been an extremely difficult task to achieve.
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Introduction

Statistics

More than 11.7 million cosmetic procedures were performed on women in 2007, encompassing 91% of the total cosmetic procedures done according to the American Society for Aesthetic Plastic Surgery (2007). There has been a 457% increase in the total number of cosmetic procedures in the United States since 1997. Surgical cosmetic procedures have increased by 114%, and nonsurgical cosmetic procedures have increased by 754% since 1997. It is important that all healthcare providers have accurate knowledge of this ongoing trend and information regarding cosmetic surgery because of these dramatic increases. In addition, Americans spent approximately $13.2 billion on cosmetic procedures in 2006 (American Society for Aesthetic Plastic Surgery). The amount of money spent on elective surgery is tremendous, and clinicians need to advise their patients wisely if cosmetic surgery is an appropriate choice for them. Due to the rise in the amount of procedures and money involved, healthcare workers need to be aware of potential factors, motives, and expectations patients have toward cosmetic surgery to ensure that proper assessment and education is given to their patients.

Purpose

The purpose of this study is to understand why women choose to have cosmetic surgery and to discover if there are psychological benefits from the procedure after surgery.

Relevance to the Physician Assistant Profession

As cosmetic surgery procedures are performed at increasing rates, it is vital that healthcare professionals mentor their patients with correct information. Patients expect providers to accurately answer questions and concerns they express. Providers should be able to evaluate each patient individually to determine if cosmetic surgery is an appropriate choice for him or her.
History

An investigation conducted in 1960 found that 70% of 98 patients who underwent cosmetic surgery were previously diagnosed with a psychiatric disturbance (Edgerton, Jacobsone, & Meyer, 1960). Another study performed on cosmetic surgery patients reported personality disturbances in these patients (Napoleon, 1993). With the rise in plastic surgeries in the 21st century, it is important to understand if patients who undergo elective cosmetic surgery have similar mental disorders. Recent findings suggest that the majority of people augmenting their bodies do not have psychiatric disorders. Ferraro, Rossano, and D’Andrea (2005) and Honigman, Phillips, and Castle (2004) conclude that the majority of individuals who elect to have cosmetic surgery do not express psychopathology and do not differ from the general population in regard to self-esteem. This is a change from studies performed in the 1950s and 1960s that found the majority of patients who underwent cosmetic surgery were diagnosed with a mental illness. Studies conducted in the 1970s uncovered increased symptoms of depression and anxiety in patients having elective cosmetic surgery (Grossbart & Sarwer, 2003). Patients seeking cosmetic surgery in the 1950s, 1960s, and 1970s may have had much different motives for change than people seeking cosmetic surgery today. If there is a lack of psychopathology driving a person to pursue surgery today, healthcare professionals must understand a patient’s reasoning for cosmetic surgery and advise him or her in the correct direction.

Background

Nearly 56% of American women claim to be disappointed with their general appearance (Grossbart & Sarwer, 2003). Western culture bombards females with advertisements identifying the ideal body form. Motivation to undergo cosmetic surgery stems from a variety of influences. Reality television shows have come on the air in the last 5 years. Other media play a role
through magazines, newspapers and talk shows reaching millions of viewers (Crockett, Pruzinsky, & Persing, 2007). Plastic surgery reality television shows influence viewers to undergo procedures by informing them about cosmetic surgery (Crockett et al.). These shows give women an idea of what cosmetic surgery entails, whether they be ill-informed or not. Crockett et al. reported that patients claimed to be motivated to undergo cosmetic surgery after seeing positive outcomes on television shows. Other researchers suggest the increase in the popularity of cosmetic surgery is due to body image dissatisfaction from the constant bombarding by mass media images of beauty (Sarwer, Cash et al., 2005). After examining the factors that motivate people to undergo cosmetic surgery, Sarwer, Cash et al. reports that body image dissatisfaction, societal acceptance of cosmetic surgery, and a teasing history are all reasons to have surgery. Thorpe, Ahmed, and Steer (2004) suggest that many Americans are wealthy enough to spend money on anything.

Some articles report that certain procedures elicit higher body satisfaction postoperatively than others. Women who had breast reduction surgery and abdominoplasty reported higher levels of body satisfaction postoperatively than women who underwent rhinoplasty or pinnaplasty. Cook, Rosser, and Salmon (2006) suggest that women who elect to have breast reduction surgery are more impaired physically preoperatively than women who request other elective surgeries.

Individuals dissatisfied with surgical outcomes were identified as those with underlying psychopathology (Metules, 2005). When examining issues that empower people to change their physical appearance, it is found that people with particular psychiatric disorders often seek cosmetic treatment (Bellino et al., 2006). Patients with personality disorders and body dysmorphic disorder often attempt to reduce their appearance related distress by having cosmetic
surgery (Bellino et al.). However, Ferraro et al. (2005) conclude that the majority of individuals who elect to have cosmetic surgery do not express psychopathology.

Attitudes about cosmetic surgery have also changed and are becoming more accepted among the general public since 1997 (Sarwer, Cash et al., 2005). The media is thought to play an important role lending to greater societal acceptance of cosmetic surgery. More than 50% of women in the United States approve of cosmetic surgery (von Soest, Kvalem, Skolleborg, & Roald, 2006). Sarwer, Cash et al. reported that college females have favorable attitudes about cosmetic surgery since 40% would consider elective surgery in the near future and 48% would consider cosmetic surgery by middle age.
Methods

Scope

Psychological outcomes in cosmetic surgery vary according to the type of procedure performed. Types of measures used to assess outcomes differ from one report to another. These assessments include using either clinical interviews or psychometric measures. Both tools are used to assess psychopathology and are used to exclude patients that would have unrealistic beliefs about the outcomes of cosmetic surgery (Sarwer et al., 1998). Standardized testing yields more reliable and valid results compared to clinical interviewing (Sarwer et al.; Cook, Rosser, & Salmon, 2006; Honigman et al., 2004). Grossbart & Sarwer (2003) reported that higher rates of psychopathology were found when clinical interviewing was used to measure psychopathology. Although mixed results were obtained, standardized testing shows less psychopathology than clinical interviews (Grossbart and Sarwer). Therefore, only studies that used standardized testing were used in this paper to review the literature. All articles were written in English with publishing dates no older than 1993. The only exception was Edgerton et al.(1960) which was used as a historical comparison.

Studies that assessed cosmetic surgery individuals with congenital abnormalities, defects due to traumatic accidents, or other illnesses that caused physical deformity were excluded. These studies were excluded because the individuals had real physical defects that needed reconstructive surgery.
Research Strategy


Definitions

Blepharoplasty: any operation for the correction of a defect in the eyelids (Stedmans, 2006).

Rhinoplasty: reconstructive or cosmetic surgery of the nose to correct form or function (Stedmans, 2006).

Breast augmentation: plastic surgery to enlarge the breast, often by insertion of an implant (Stedmans, 2006).

Rhytidectomy or face lift: excision of wrinkles. Usually used to designate rejuvenative surgery of the cheeks and neck performed by tightening the facial supporting structures and excising excess skin (Stedmans, 2006).

Breast reduction or reduction mammaplasty: plastic surgery of the breast to alter its shape, size, or position (Stedmans, 2006).

Liposuction or lipoplasty: method of removing unwanted subcutaneous fat using percutaneously placed suction tubes (Stedmans, 2006).

Otoplasty or pinnaplasty: constructive or reparative plastic surgery of the ear (Stedmans, 2006).

Abdominoplasty: an operation performed on the abdominal wall for cosmetic purposes (Stedmans, 2006).
Motivating Factors in Cosmetic Surgery

Perfectionism

Many researchers contribute factors that motivate women to undergo cosmetic surgery. Sherry, Hewitt, Lee-Bagley, Flett, and Besser (2005) linked the pursuit for perfection as a reason to undergo elective surgery. Perfectionists strive to excel in every facet of life. It is reported that many of these individuals are disappointed in their appearance and want to change the way they look. Undergoing cosmetic surgery can enable these individuals to perceive themselves as looking their best (Sherry et al.).

Aging

Another concern women have is their aging appearance. Women claim to look older than they feel (Thorpe et al., 2004). Women suggest that particular areas of their body do not correlate with the rest of their body in terms of aging factors. Some women say that the part of the body they want to change makes them feel and appear older. This can cause a lack of confidence, a lower self-esteem, and feelings of unhappiness. Women believe there are cultural pressures that make them feel they need to look a particular way in order to gain positive reassurance within themselves and in public (Thorpe et al.). Brown, Furnham, Glanville, and Phillips (2007) found that women of all ages are willing to undergo cosmetic surgery and therefore cosmetic surgery is not a function of age. An aging body area or part may be one motivating factor to have surgery.

Innovation

Improvements and innovations in medicine have become motivating factors to undergo cosmetic surgery. Medical procedures have become safer over the years due to new techniques.
Procedures are now less invasive and have faster postoperative recovery times. Patients feel less anxiety to undergo procedures (Brown et al., 2007).

**Beauty Standard**

American society puts pressure on women to look beautiful. This correlates with Brown et al. (2007) who finds that women are more likely to undergo cosmetic surgery than men (Grossbart & Sarwer, 2003). Body image was reported to be a strong predictor of those who would have elective surgery (von Soest et al., 2006). Additionally, 56% of American women report dissatisfaction with their body image (Grossbart & Sarwer). Women who rate themselves as less attractive are more likely to have plastic surgery (Brown et al.).

**Peer Group Acceptance**

Women report that the more females they personally knew who had cosmetic surgery performed, the more likely they were to think about having it done themselves (Brown et al., 2007). Von Soest et al. (2006) corroborated this by showing acceptance of cosmetic surgery in a surgical candidate’s personal environment was the second of the two strongest predictors for cosmetic surgery, the other being body image.

**Body Part and Overall Body Image**

Although von Soest et al. (2006) and Frederick, Lever, and Paplau (2007) reported that overall body image is thought to be a contributing factor in cosmetic surgery, other researchers suggest that there is greater dissatisfaction with a particular body part rather than the entire body as a whole (Didie & Sarwer, 2003; Sarwer et al., 2003). It was also found that women who wanted cosmetic surgery were those less satisfied with and more involved in their physical appearance. This suggests that those who invest a great deal of their time with their appearance may be more likely to be motivated to consider cosmetic surgery (Fredrick et al., 2007; von
Soest et al.; Sarwer, Cash, et al., 2005). Didie and Sarwer found that although prospective breast augmentation patients were more involved in their health and fitness to improve their overall body, these women did not display greater body dissatisfaction than their control group. They did, however, convey a greater dissatisfaction with a body part, their breasts.

**Self-Esteem**

Self-esteem as a motive to undergo elective plastic surgery is reported in the literature with conflicting results. Figueroa- Haas (2007) found strong evidence suggesting that low self-esteem levels were an increased motivating factor to undergo cosmetic procedures. Von Soest et al. (2006) found that a woman’s self-esteem is largely based on her evaluation of her own appearance, suggesting that self-esteem is not a motive to have cosmetic surgery. Ferraro et al. (2005) also support the claim that there is no relationship between low self-esteem and having cosmetic surgery. In regard to breast augmentation, no relationship was shown between increased self-esteem and having cosmetic surgery (Sarwer et al., 2003).

**Teasing of Appearance**

Several studies examined whether a history of teasing a person’s appearance was a motive to pursue cosmetic surgery. Studies suggest that women who were teased in adolescence and childhood were individuals with a greater motivation to have cosmetic surgery (von Soest et al., 2006; Sarwer et al., 2003; Guthrie, Bradbury, Davenport, & Souza Faria, 1998). Guthrie et al. found that many of their breast reduction patients and people in the control group suffered social distresses from people making comments about their breasts during conversation. The reduction mammoplasty subjects reported greater psychological distress from the comments than the people in the control group. Conversely, Didie and Sarwer (2003) were unable to find statistically significant differences in teasing histories between women having breast reduction
surgery and a comparison group. Breast reduction candidates reported a greater frequency of teasing than the control group, but this finding was not statistically significant.

_Favorable Media Bias_

Other studies proposed that the mass media, such as television and magazines, are important sources that may motivate women to seek cosmetic surgery. The mass media has been shown to promote a positive view toward people who choose to have cosmetic surgery. It influences individuals to seek surgery through endorsements, favorable stories, and articles (Crockett et al., 2007; Sarwer, Cash et al., 2005). Some studies suggest that although the media is a great source for generating knowledge about cosmetic surgery, it has not been shown to be a significant motivating factor for undergoing elective surgery (Brown et al., 2007; Didie & Sarwer, 2003).

There are many possible motivations for women to choose to have cosmetic surgery, but there have been disagreements among the studies conducted in this area. Possible motivations include: perfectionism, aging, innovation, beauty standard, peer group acceptance, body part and overall body image, self-esteem, teasing of appearance, and favorable media bias.
Psychological Disorders Associated with Cosmetic Surgery

*Depression and Anxiety*

Two commonly occurring disorders perceived in the cosmetic surgery population are anxiety and depression. These disorders exist in the general population at comparable levels (Mowlavi et al., 2000). Sarwer et al. (2004) reported that depression was the most common psychiatric disorder among patients pursuing cosmetic surgery. Patients with anxiety and depression sometimes have unrealistic expectations regarding cosmetic surgery in that they may desire surgery in order to feel better rather than to look better (Mowlavi et al.). Some depressed individuals believe that their body image is the source of their problem. They notice their appearance as disfiguring and seek out cosmetic surgery as the cure for their depression.

*Body Dysmorphic Disorder*

Another frequently reported psychiatric problem seen by cosmetic surgeons is body dysmorphic disorder (BDD). As many as 6% to 15% of people requesting elective surgery have BDD (Hodgkinson, 2005). The DSM-IV defines BDD as, “a preoccupation with an appearance defect that is either imagined or is a slight physical anomaly.” The most common sites of dissatisfaction include skin, eyes, nose, hair, thighs, abdomen, lips, breasts, chin, scars, height, and teeth (Hodgkinson). People with BDD often visit the surgeon during late adolescence or young adulthood (Mowlavi et al., 2000). Cosmetic surgery for these individuals usually results in profound dissatisfaction because of the underlying psychiatric disorder (Hodgkinson). Veale (2004) reported that BDD patients who had rhinoplasty cosmetic surgery appeared to have higher rates of postoperative dissatisfaction than BDD patients having surgeries such as mammoplasty and pinnaplasty. Individuals with BDD become disappointed, creating anger and depression that worsens their BDD symptoms (Veale).
Personality Disorder

Personality disorders are another common psychiatric disorder seen in the cosmetic surgery population. In a study of 133 participants undergoing cosmetic surgery, Napoleon (1993) found that 25% were diagnosed with Narcissistic personality, 12% with dependent personality, 9.75% with histrionic personality, 9% with borderline personality, and 4% with obsessive-compulsive personality. Each personality type was related to a specific patient satisfaction outcome. The borderline personality group reported the lowest postoperative satisfaction ratings while the dependent personality patients reported the highest satisfaction level. Narcissistic personality and obsessive-compulsive personality patients displayed mixed results in satisfaction levels. Neither group showed consistent positive or negative satisfaction rates. The only exception to this was that histrionic personality patients had the most variability in rating their postoperative satisfaction. These patients exhibited fragmented results displaying positive, negative, and neutral outcomes. It appears that certain personality types seem to herald different satisfaction outcomes from cosmetic surgery.

Schizophrenia

Schizophrenia is seen in 2% to 15% of cosmetic surgery patients. These patients regularly present to the office with vague and strange complaints regarding their appearance. One example given by Momlavi et al. (2000) described a patient protesting that her nose was getting larger every week. Hallucinations caused by the schizophrenic disorder influences these individuals to pursue surgery and the clinician should recognize the condition and proceed with caution (Harth & Hermes, 2007).
Patients’ Preoperative Well-Being

_Depression_

There is no consensus regarding the incidence of depression in preoperative cosmetic surgery patients. Sarwer, Wadden, and Wadden (2002) reported that 15 out of the 45 patients they studied waiting to have blepharoplasty, rhinoplasty, breast augmentation, rhytidectomy, breast reduction, or liposuction expressed feelings of depression within the past year. Another study found that patients seeking surgery for appearance reasons had marginal depression levels in comparison to the general population (Cook, Rosser, Tonne, James & Salmon, 2006). A study on facial cosmetic surgery patients with blepharoplasty, face lifting, cervical liposuction, rhinoplasty, baldness surgery, otoplasty, and chin correction surgery found that 19% were depressed with another 23% scoring close to depression levels (Meningaud et al., 2001, 2003). Conversely, Sarwer, Gibbons et al. (2005) reported that their subjects with blepharoplasty, face lift, liposuction, rhinoplasty, and breast augmentation were not depressed prior to surgery and reported scores well within the range of non-depressed people. This was supported by Rankin, Borah, Perry, and Wey (1998) who also found that their subjects had no signs of depression.

_Stress and Anxiety_

Research measuring stress and anxiety in preoperative cosmetic surgery patients does not present a uniform view on this subject. Sarwer et al. (2002) measured stress and anxiety to assess preoperative well being. Their study found that 15 out of the 45 patients undergoing some type of facial surgery, breast augmentation, breast reduction, or liposuction had increased levels of stress and anxiety within the past year. Cook, Rosser, Tonne et al. (2006) reported that cosmetic surgery patients felt greater anxiety preoperatively and had lower self-esteem, worse psychosocial quality of life, and withdrawal from social settings. These subjects were more
distressed and had worse social function than the general population. Schofield, Hussain, Loxton, and Miller (2002) similarly found that the women they studied tended to have higher stress levels and lower life satisfaction than the general population. Meningaud et al. (2001) found patients requesting facial cosmetic surgery having either blepharoplasty, face lift, cervical liposuction, rhinoplasty, baldness surgery, otoplasty, and chin correction reportedly felt more anxious than the general population. Oppositely, Cook, Rosser, Tonne et al. performed a review of the literature and concluded that cosmetic surgery patients did not have clinically significant levels of dysfunction or distress before surgery. The patients studied did possess levels of psychosocial impairment, but not at levels regarded as needing psychiatric treatment (Cook, Rosser, Tonne et al.).

Loss of Self-Confidence and Social Function

When researching patients requesting facial cosmetic surgery, two studies concurred that patients felt a lack of overall self-confidence in society (Meningaud et al., 2001; Rankin et al., 1998). Rankin et al. found that appearance was the most dissatisfying aspect measured and the loss of self-confidence was the second most dissatisfying measure found preoperatively. Cook, Rosser, Tonne et al. (2006) reported patients felt socially avoidant previous to cosmetic surgery. Klassen, Jenkinson, Fitzpatrick, and Goodacre (1996) found that abdominoplasty and pinnaplasty participants had significantly worse social functioning than the general norms. In opposition to this, Bolton, Pruzinsky, Cash, and Persing (2003) found that abdominoplasty patients reported no problems in self-confidence or fear of negative social evaluation. Therefore, disagreement exists in this area.
Loss of Physical Function

Abdominoplasty patients reported decreased levels of energy and limitations in physical activites (Klassen et al., 1996). Rhinoplasty patients perceived their physical health at lower levels than the general population. Breast reduction patients scored significantly lower in physical dysfunction than abdominoplasty, pinnaplasty and rhinoplasty patients (Klassen et al., 1996). Breast reduction patients felt they had worse physical functioning than the other patients studied. Klassen et al. (1996) found decreased levels of energy and limitations in physical activities in abdominoplasty patients.

Dissatisfaction with Body Feature

Patients’ preoperative psychosocial health was largely based on a specific body feature, which was a significant motivating factor to undergo cosmetic surgery. Several studies reported that patients expressed heightened dissatisfaction with the specific feature to be altered but not increased dissatisfaction with their global body image (Bolton et al., 2003; Sarwer, Gibbons et al., 2005; Sarwer et al., 1998). Fifty-seven percent to 71% of abdominoplasty patients stated that their disappointment was mainly their mid-torso region, but claimed to have a general satisfaction with their body (Bolton et al.). Facial cosmetic surgery patients conveyed that their aging face was the greatest dissatisfaction in comparison to the rest of their body (Bolton et al.). Sarwer, Gibbons et al. performed a study of breast augmentation, blepharoplasty, lipoplasty, face lift, and rhinoplasty and found that participants rated their level of attractiveness of the feature being altered with great disapproval.

Dissatisfaction with Global Body Image

Other studies concluded high rates of dissatisfaction with overall body image as opposed to a specific body part in preoperative patients. Reports of dissatisfaction and embarrassment
with their overall appearance were common in rhinoplasty patients (Rankin et al., 1998; Sarwer et al., 1998). Face lift patients expressed dissatisfaction with their general appearance as the primary reason to have elective surgery (Rankin et al.). Sarwer et al. found that rhinoplasty patients expressed greater dissatisfaction with their overall appearance compared to facial cosmetic surgery patients. Conversely, Meningaud et al. (2001) found that facial cosmetic surgery patients expressed being preoccupied with their overall appearance and what others thought about them.

**Psychopathology**

Most preoperative cosmetic surgery patients are not afflicted by serious psychosocial problems. Sarwer et al. (1998) reviewed the literature and concluded that a majority of cosmetic surgery patients do not suffer from serious psychological disturbances. Similarly, Cook, Rosser, and Salmon (2006) reported that the general cosmetic surgery population did not exhibit psychopathology. Conversely, two studies found that the majority of cosmetic surgery subjects suffered from psychopathology. A population of rhinoplasty patients showed psychological disturbances such as mild or moderate body dysmorphic disorder, social phobia, sexual and somatization disorders, and personality abnormalities such as narcissistic, historionic or avoidant traits (Ercolani, Baldaro, Rossi, & Trombini, 1999; Ercolani, Baldaro, Rossi, Trombini, & Trombini, 1999).
Patients’ Postoperative Well-Being

Depression

The primary purpose of cosmetic surgery is to achieve a morphological change. This change may also lead to psychological transformation. Some researchers reported improvement in depressive symptoms postoperatively (Rankin et al., 1998, Sarwer & Crerand, 2002). Rankin et al. found that rates of depression for liposuction, rhinoplasty, rhytidectomy, breast augmentation, laser resurfacing, and abdominoplasty indicated an improvement in depression symptoms the first month and the sixth month after surgery. These patients were not found to be greatly depressed preoperatively, but due to the improvement in physical self-image, feelings of depression were decreased dramatically. Other studies investigating depression found no improvement in emotional functioning postoperatively (Meningaud et al., 2003; Sarwer, Gibbons et al., 2005). Facial cosmetic surgery patients exhibited no decline in depression symptoms (Meningaud et al.). Sarwer, Gibbons et al. reported no statistically significant increase in self-esteem or changes in depression in patients undergoing breast augmentation, liposuction, rhinoplasty, rhytidectomy, and blepharoplasty. It should be noted that no depressive symptoms were found by this study’s subjects preoperatively (Sarwer, Gibbons et al.).

Embarrassment

Participants of some studies reported significantly less postoperative embarrassment with the altered feature than was reported preoperatively (Rankin et al., 1998; Sarwer et al., 2002). Patients also expressed less embarrassment about the altered feature in public and in social situations when attention was brought to it (Sarwer et al.). Rhinoplasty patients showed the greatest reduction in feelings of embarrassment postoperatively compared to other variables measured (Rankin et al.).
Quality of Life

Most of the literature reviewed assessed quality of life outcomes of cosmetic surgery patients. Most researchers found that the overall quality of life improved postoperatively (Castle, Honigman, & Phillips, 2002; Cook, Rosser, & Salmon, 2006; Klassen, Fitzpatrick, Jenkinson, & Goodacre, 1999; Rankin et al., 1998; Sarwer et al., 2002). Rankin et al. found that subjects felt more positive about their social lives, sex lives, interpersonal relationships and they enjoyed more leisure activities than previously. It was suggested that due to patients’ improvement in quality of life measures, improvements in psychological status were shown (Rankin et al.). Abdominoplasty, pinnaplasty, breast reduction, and breast augmentation patients all reported increased social and psychological well being postoperatively (Klassen et al.). Rhinoplasty patients reported significantly higher physical function after surgery (Klassen et al.). Not all of the studies reported overall improvement in the quality of life. Sarwer, Gibbons et al. (2005) did not find evidence suggesting increases in social functioning, sexuality, and emotional well-being after surgery.

Body Image

Almost all of the studies investigated postoperative body image satisfaction. Most studies agreed that patient satisfaction with the altered feature increased postoperatively (Bolton et al., 2003; Broughton et al., 2006; Cook, Rosser, Tonne, et al., 2006; Rankin et al., 1998; Sarwer et al., 2002; Sarwer, Gibbons et al., 2005). Sarwer, Gibbons, et al. reported that patients felt more positive about their overall body image. One study reported that 87% of the patients said they were satisfied with overall body image at three, six, and 12 month intervals suggesting that satisfaction postoperatively persists long term (Sarwer et al.). Broughton et al. surveyed liposuction patients at 6 months and two years after their operation and found similar results.
An investigation on rhinoplasty patients found that body part dissatisfaction was the highest variable reported preoperatively and following surgery 48% expressed improvements (Rankin et al.). In addition, rhytidectomy patients reported high rates of dissatisfaction regarding the feature preoperatively, with 66% reporting increased satisfaction after surgery (Rankin et al.). Dissatisfaction with appearance and weight distress improved dramatically postoperatively for liposuction patients (Bolton et al.; Rankin et al.).

Although Sarwer et al. (2002) reported that following cosmetic surgery, patients reported more satisfaction with the particular body part that was changed, they did not find a significant increase in satisfaction with the overall body. Honigman et al. (2004) reviewed the literature on cosmetic surgery outcomes and found that breast augmentation and breast reduction patients generally had high rates of overall body image satisfaction after surgery, but reported that facial cosmetic surgery patients exhibit a range of high to low satisfaction postoperatively.

**Self-Confidence**

Many of the studies that found improvement in body satisfaction also measured other variables that improved postoperatively. Many researchers found that patients conveyed greater self-confidence after surgery (Bolton et al., 2003; Castle et al., 2002; Honigman et al., 2004; Meningaud et al., 2003; Rankin et al., 1998). The majority of the studies reviewed by Honigman et al. reported high rates of self-confidence in rhinoplasty patients with a few studies showing no clear increase or decrease in self-confidence (Honigman et al.). They also found that breast augmentation patients and a number of rhinoplasty patients acquired high levels of social confidence after surgery. Additionally, enhancement in self-confidence was also reported in facial surgery patients (Meningaud et al.) and abdominoplasty patients (Bolton et al.).
**Self-Esteem**

Some studies assessed self-esteem with mixed results (Bragg & Srivastava, 2007; Castle et al., 2002; Honigman et al., 2004; Klassen et al., 1996). One study reported that breast augmentation patients showed the greatest improvement in self-esteem postoperatively compared to the other variables measured (Klassen et al.). Honigman et al. found that 78% to 90% of breast augmentation patients reported an increase in self-esteem compared to rhinoplasty and face lift patients. A study examining abdominoplasty patients found no significant difference in self esteem compared to the general population after surgery (Bragg & Srivastava).

**Recommendation of Cosmetic Surgery by Patients**

Some studies assessed whether cosmetic surgery patients would have the procedure again and if they would recommend the procedure to others. Sarwer, Gibbons, et al. (2005), while assessing multiple cosmetic procedure patients, reported that 93% would have the procedure again with 97% recommending cosmetic surgery to others. Broughton et al. (2006) assessing liposuction patients, and Bragg and Srivastava (2007) assessing abdominoplasty patients, found that many individuals would have the surgery again and a majority would recommend it to others. Broughton et al. found 62% of subjects reported they would have the surgery again and 81% would recommend the surgery to others. Bragg and Srivastava found 79.7% of abdominoplasty patients would have the procedure again, and 86% would recommend the surgery to friends and family.

**Psychopathology**

Two studies commented on rhinoplasty patients’ level of psychopathology postoperatively (Ercolani, Baldaro, Rossi & Trombini, 1999; Ercolani, Baldaro, Rossi, Trombini & Trombini, 1999). They found a significant decrease in neuroticism six months, and five years
after rhinoplasty surgery suggesting most rhinoplasty patients have long term benefits after cosmetic surgery. Furthermore, significant increases in extroversion were found six months after surgery but not five years later in these patients. These researchers suggest that even though cosmetic surgery showed psychological benefit, there is no significant evidence that surgery is better than psychotherapy. Another study by Honigman et al. (2004) found that the majority of patients dissatisfied with their surgical outcomes were likely to suffer from BDD. Veale (2004) reports that 82.6% of BDD patient’s symptoms remained unchanged or worsened postoperatively. BDD subjects opting to repeat cosmetic procedures had increased dissatisfaction rates postoperatively.
Preoperative Breast Well-Being

Dissatisfaction with Body Part and Overall Body Image

A number of researchers found that breast reduction subjects reported significant dissatisfaction with their breasts, as well as dissatisfaction with their overall body preoperatively (Borkenhagen, Rohricht, Preiss, Schneider, & Brahler, 2007; Faria, Guthrie, Bradburg, & Brain, 1999). Borkenhagen et al. found that the majority of breast reduction participants reported great dissatisfaction with their stomach, hips, waist, and thighs, as well as their breasts, preoperatively. Another study reported increased levels of dissatisfaction in breast reduction patients’ appearance (Sarwer et al., 1998). Patients had maladaptive behavioral changes due to their breast size with greater than 50% of breast reduction patients reporting avoidance of being seen undressed by others and trying to camouflage their appearance (Sarwer et al.). Furthermore, several studies reported greater worry and embarrassment about their breasts in public and social places (Glatt et al., 1999; Sarwer et al.).

Anxiety and Depression

Breast reduction patients also expressed psychological distress. Mild or low psychological distress was present in the majority of patients prior to surgery (Chahraoui et al., 2006; Thoma, Sprague, Veltri, Duku, & Furlong, 2007). One study found high levels of anxiety present in preoperative breast reduction patients (Iwuagwu, Stanley, Platt, Drew, & Walker, 2006), while another reported low levels (Chahraoui et al.). Thoma et al. found that 18% of the breast reduction subjects reported a history of depression with 8% reporting frequent headaches. Conversely, Chahraoui et al. reported that 20% of the breast reduction patients were previously diagnosed as being clinically depressed, but were not found to be depressed at the study’s initial assessment.
Physical Well-Being

Many studies found that breast hypertrophy was associated with a lower health-related quality of life (Choa et al., 2002; Collins et al., 2002). One of the physical symptoms reported was back pain, which was found in all breast reduction studies. The other three symptoms included shoulder grooving, breast pain, and neck pain (Choa et al.; Collins et al.). Other common complaints found in preoperative breast reduction patients were frequent headaches (Hermans, Boeckx, Lorenzi, & van der Hulst, 2005; Iwuagwu et al., 2006), trouble fitting into clothing (Blomqvist, Eriksson, & Brandberg, 2000; Glatt et al., 1999), rashes under the breasts or skin irritation (Ferreira, 2000; Glatt et al.), poor body posture (Blomqvist et al.), and sleeping problems (Blomqvist et al.; Shakespeare & Cole, 1997). Overall, health evaluations reported from breast reduction patients were significantly low compared to the general population (Freire, Neto, Garcia, Quaresma, & Ferreira, 2004; Hermans et al.). Many patients did not participate in physical activities because of the size of the their breasts (Sarwer et al., 1998; Shakespeare & Cole). One study found that breast reduction patients avoided exercise because of feeling self-conscious of their breast sizes, and they were less likely to engage in self-care behaviors (Sarwer et al.). Another study suggested that living with large breasts is associated with a lower health-related quality of life and is similar to living with other serious health conditions including moderate angina or a kidney transplant (Thoma et al., 2007). Collins et al. found that breast reduction patients had difficulty participating in sports the majority of the time because of the size of their breasts.

Other Psychological Symptoms

Other psychological symptoms included, low self-worth (Iwuagwu et al., 2006), insecurities with their breasts, (Ferreira, 2000; Hermans et al., 2005) and feeling ashamed and
unattractive (Hermans et al.). Two studies reported subjects feeling distress due to remarks made in social settings about their breasts (Hermans et al.; Shakespeare & Cole, 1997). Other studies did not identify specific factors of preoperative well-being but did report that emotional stress and low mental health were present preoperatively due to large breast size (Freire et al., 2004; Shakespeare & Cole).
Postoperative Breast Well-Being

Body Part and Body Image

After breast reduction surgery, some patients felt that their current breast size was still larger than that of other women. These same patients felt that their ideal breast size was actually smaller than that of the average female breast size (Glatt et al., 1999). However, another study found that women were satisfied with their breast shape and size (Freire et al., 2004; Hermans et al., 2005). Borkenhagen et al. (2007) found that patients were greatly satisfied with their breasts following surgery. Increase in self-image improved dramatically following surgery (Glatt et al.; Tykka, Asko-Seljavaara & Hietanen, 2001). Individuals felt more attractive (Borkenhagen et al.; Ferreira, 2000) and less embarrassed about their breasts (Hermans et al.). The most significant complaint was related to the scar left after surgery (Ferreira; Freire et al.). However, many said the quality of the scar was acceptable (Glatt et al.; Hermans et al.; Tykka et al.).

Physical Well-Being

The bulk of most breast reduction studies focused on the physical symptoms associated with having large breasts. Postoperative patients reported significant improvement in physical health and many reached scales comparable to the general population. After surgery, pain in the back, neck, breasts, and shoulder grooving all improved significantly (Blomqvist et al., 2000; Chao et al., 2002). Poor body posture was reduced (Blomqvist & Brandberg, 2004; Blomqvist et al.; Chao et al.) and many patients reported not having any continued trouble (Blomqvist et al.). Findings were consistent two years (Blomqvist et al.) and three years (Blomqvist & Brandberg) after breast reduction surgery. Other improvements that were less significant were increased working capacity and enhanced quality of sleep (Faria et al., 1999; Shakespeare & Cole, 1997). Improvement was seen in physical activity. Patients reported greater amounts of energy (Freire
et al., 2004; Woodman & Radzyminski, 2007) and spent more time doing physical activities after having surgery than before surgery (Iwuagwu et al., 2006; Thoma et al., 2007; Shakespeare & Postle, 1999;). Patients had less difficulty participating in sports (Collins et al., 2002). Most variables improved and many reached the general population norms (Borkenhagen et al., 2007; Blomqvist et al.).

Other Psychological Symptoms

Many studies found that breast reduction patients had significantly less maladaptive behavior due to breast size after breast reduction surgery (Blomqvist et al., 2000; Woodman & Radzyminski, 2007). Measures of anxiety and depression improved significantly in a number of studies after surgery (Chahraoui et al., 2006; Faria et al., 1999; Ferreira, 2000). A number of individuals that were defined as clinically anxious and depressed improved so much that they were no longer considered to have a psychiatric disorder (Faria et al.). Self-esteem improved after the operation (Shakespeare & Postle, 1999; Tykka et al., 2001; Woodman & Radzyminski, 2007). Self-confidence increased in public and social settings (Blomqvist et al.; Borkenhagen et al., 2007; Hermans et al., 2005, Shakespeare & Postle). Shakespeare and Postle did a followed-up study on these women and found that feelings of self-confidence lasted two years post surgery. Several studies found increases in feelings of femininity (Borkenhagen et al.; Hermans et al.). Women were found to be less bothered in intimate situations (Blomqvist et al.; Ferreira). The difficulty finding clothing that fit properly became almost extinct (Shakespeare & Cole, 1997; Woodman & Radzyminski).
Recommendation of Breast Reduction Surgery by Patients

Most studies found that the majority of patients would have their surgery again (Ferreira, 2000; Glatt et al., 1999; Hermans et al., 2005). When asked if patients would recommend breast reduction surgery to others, the majority agreed they would recommend it (Borkenhagen et al., 2007; Glatt et al.; Tykka et al., 2001). Other patients said that the results of surgery were what they expected (Chao et al., 2002) and some said it exceeded their expectations (Blomqvist et al., 2000; Ferreira).
Conclusion

*Historical Change in Cosmetic Surgery Population*

The population of people choosing to undergo cosmetic surgery is far different than its concomitant population of 50 years ago. In the 1950s and 1960s, it was found that the majority of individuals pursuing cosmetic surgery were people that suffered from previously diagnosed psychopathology. This differs greatly with results of studies over the past 15 years which show that the patient population is overwhelmingly individuals with normal psychological health profiles. The reasons for this phenomenon are a source of significant scientific debate. Most of today’s elective cosmetic surgery patients are not choosing this course of action due to psychological impairment. Instead, patients are choosing cosmetic surgery for other reasons which are detailed in the following paragraphs.

*Motivating Factors for Selecting Cosmetic Surgery*

One motivating factor for choosing cosmetic surgery is an individual’s desire to strive to be perfect, whether internally driven or driven externally by societal pressures. Another reason for seeking cosmetic surgery is to avoid the aging process while striving to achieve a perpetually youthful look. Society pressures individuals to achieve a high standard of beauty, and this certainly has impacted the incidence of cosmetic surgery. Peer group acceptance of the procedure has made it far easier for an individual to feel at ease with his or her decision to pursue this medical option. A person’s negative view of his or her overall body or dissatisfaction with a body part can be a motivating factor for surgical change. Bolstering one’s self-esteem through implementing cosmetic surgery is another incentive. An individual who has suffered through a history of being teased by others about his or her appearance is a candidate for a procedure.
Finally, a very favorable media viewpoint toward cosmetic surgery has been an influential factor in promoting elective cosmetic surgery.

*Psychopathologies as Motivating Factors for Cosmetic Surgery*

Though the preponderance of motivations to elect cosmetic surgery are not related to psychopathologies, there are some incidences where psychopathologies do appear to impact an individual to select these procedures. This paper focused on four areas of psychopathologies: depression and anxiety, body dysmorphic disorder (BDD), personality disorder, and schizophrenia. There is research that suggests that as many as 6% to 15% of people requesting elective cosmetic surgery have BDD, while 2% to 15% have schizophrenia. Research found that these patients had statistically significant negative satisfaction outcomes postoperatively. The importance of this finding is that medical professionals need to identify the individuals who have these disorders in order to advise them that cosmetic surgery may not be the appropriate option. It is difficult to draw a conclusion on individuals with personality disorders that want to have cosmetic surgery due to a lack of clear results. The same is true for patients with depression and anxiety.

*Preoperative Well-Being of Patients in General Cosmetic Surgery Studies*

There appears to be no clear consensus regarding the existence of depression, stress and anxiety, loss of self-confidence, and social function in preoperative patients. Disagreement was found between studies regarding body part versus body image dissatisfaction. Some studies found general dissatisfaction with a specific body part and not overall body image, while other studies found general dissatisfaction with overall body image but not a specific body part in the patient populations that were surveyed. However, loss of physical function involving activities of daily living was generally reported to exist among the patients preoperatively.
Postoperative Well-Being of Patients in General Cosmetic Surgery Studies

Some studies reported patient improvement regarding feelings of depression while others showed no improvement. Results regarding change in self-esteem were unclear. Conversely, there were many areas of patient improvement reported by the researchers. Feelings of embarrassment regarding the altered body feature were reduced. Most research reported improvement in overall quality of life. The studies demonstrated increase in satisfaction of body image and body part. Those that did not find both areas to have improved found at least one of the two to have increased in satisfaction. The great majority of the studies found an increase in self-confidence.

Preoperative Well-Being of Patients in Breast Reduction Studies

Studies were inconclusive regarding the existence of anxiety and depression in preoperative breast reduction patients. However, studies clearly demonstrated dissatisfaction with both overall body image and a specific body part and there was also, a clear agreement of dissatisfaction in physical well-being by these patients. The physical ailments included shoulder grooving, breast pain, neck pain, rashes, poor body posture, and sleeping problems.

Postoperative Well-Being of Patients in Breast Reduction Studies

Nearly all of these studies showed positive outcomes of postoperative well-being, some reaching levels similar to the general population. Overall, there was a high rate of body part and body image satisfaction. However, some patients still thought their breast size was larger than normal. Almost universally, these studies reported that patients felt their physical well-being was enhanced significantly. Patients expressed having greater energy, spent more time doing physical activities, experienced improved body posture, and achieved reduction of pain in the back, neck, breasts, and shoulders. Patients, who before surgery expressed feelings of anxiety
and depression, now experienced a great reduction in these symptoms. In many cases, these were decreased to general population norms. Studies found that both self-esteem and self-confidence improved and these improvements were still evident 2 years after surgery.

**Valuable Inferences for the Physician Assistant Profession**

There are three major inferences that can be gathered from this literature review. Individuals that suffer from BDD or schizophrenia have a very low satisfaction rate from cosmetic surgery. A physician assistant should be very cautious when dealing with a patient from this population who expresses interest in having cosmetic surgery. In contrast, breast reduction patients were shown to have high rates of satisfaction after surgery. A physician assistant can be very confident when discussing the general efficacy of procedures to interested patients. When a patient comes in complaining of physical symptoms possibly related to their breast size, a physician assistant can explore the possibility of this medical option with them. Finally, for all of the other situations involving the possible election of cosmetic surgery, it is difficult to draw strong conclusions from this literature review. Consequently, a physician assistant must analyze each case individually, carefully pulling together all of the factors surrounding the case, and then target research that is specific to that case. Then, by presenting the findings to the patient, the patient will be more educated and be able to make a more informed decision.
References


Abstract

Objective. This literature review investigates motivation, preoperative, and postoperative psychological well-being of cosmetic surgery patients. Method. Studies over the past 15 years on well-being of cosmetic surgery patients were reviewed. MEDLINE, PsycINFO, PubMed, CINAHL, Healthsource: Nursing/Academic and ProQuest Nursing & Allied Health source databases were used. Conclusion. Depression and anxiety, body dysmorphic disorder, personality disorder, and schizophrenia are common among cosmetic surgery patients. Physical dysfunction was reported among the majority of patients preoperatively. Postoperatively, feelings of embarrassment regarding the altered body feature were reduced, there was an improvement in overall quality of life, and an increased in satisfaction of body image and body part. In breast reduction studies, dissatisfaction with overall body image, a specific body part, and physical well-being were reported preoperatively. Nearly all studies on breast reduction patients reported positive outcomes of postoperative well-being.