

# Psychology of the Facelift Patient

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## Abstract

This paper presents an extensive literature review of the psychology of facelift patients as it has evolved over the past 50 years. Earlier studies revealed significant levels of pre and perioperative depression. Facelift patients generally exhibit emotional and social concerns about facial appearance that are higher than the general population. Many are undergoing midlife situational stresses and may lack the positive characteristics to deal with them. The most common diagnoses seen include depression, impulsivity, unstable personality, and passive dependence, albeit not necessarily serious. Improvement in body image is the major driver for surgery. Characteristics of female patients as defined by their age are described. These include the younger emotionally dependent group, the worker group of middle age, and the older grief group. Male patients are seen to have a higher level of psychological dysfunction, but a higher improvement in postoperative quality of life. Motivations for surgery include increasing self-esteem, making new friends, improving relationships, and getting better jobs. Overall patient satisfaction is more than 95%, with improvement seen in positive changes in their life, increased self-confidence and self-esteem, decreased self-consciousness about their appearance, and overall improvement in quality of life. Postoperative psychological reactions are seen in about half the patients, these primarily being anxiety and depression of varying degrees. Predictors of patient satisfaction include the desire for self-image improvement in contradistinction to a change in life situation. Negative predictors include male sex, young age, unrealistic expectations, relationship disturbances, and preexisting psychological pathology. The importance of good patient selection in achieving a satisfied patient is outlined and emphasized.

## Keywords

- ▶ psychology
- ▶ patient selection
- ▶ cosmetic surgery
- ▶ quality-of-life
- ▶ self-esteem

Cosmetic surgery continues to be an increasingly popular avenue for improvement of body image, with 15.9 million surgical and minimally invasive cosmetic procedures performed in the United States in 2015, up 2% from 2014.<sup>1</sup> As with any surgical procedure in medicine, the key to a successful outcome often stems from appropriate patient selection. This holds particularly true when considering cosmetic surgery patients. When considering patient selection, psychology of the cosmetic patient can lie at the forefront of decision-making. A patient who is satisfied after

cosmetic surgery is usually satisfied due to his/her perceived positive change in body image. Rhinoplasties aim to make the patient look different albeit better, while facelifts aim to make the patient look like a better version of themselves.<sup>2</sup>

The psychology of the aging face patient may be the most important factor in patient selection for a successful outcome. The surgeon is in essence providing a vehicle for hope and expectation of enhanced self-esteem and self-confidence. While the primary goal is creating an outward appearance that reflects the patient's inner spirit and

sense of beauty, there is no relationship between degree of deformity and psychological concern or between the amount of improvement and subjective facial satisfaction. There are a multitude of factors that incorporate into patient satisfaction, including objective results, perioperative care, meeting expectations, and impact on self-esteem.<sup>3</sup>

### Cosmetic Surgery Patient Profiles

The psychological profile of cosmetic surgery patients has changed with time as illustrated in the literature. Early interview-based studies in the 1950s and 1960s showed that patients had some form of significant psychological pathology.<sup>4-6</sup> Subsequent studies with standardized psychometric testing showed less psychopathology in female patients than originally described.<sup>7-10</sup>

Patients undergoing cosmetic surgery have emotional and social concerns that pertain to facial appearance more so than the general population.<sup>11-13</sup> It is this elevated concern that likely leads to the decision to undergo cosmetic surgery. Usually, this elevated concern does not manifest itself as a pathological state. Interestingly, the incidence of body image psychosocial disorders is very low in this population.<sup>13</sup> As shown in a quality-of-life survey by Litner et al,<sup>14</sup> a positive change in a feature of concern for these patients lead to the subsequent decrease of concern related to that feature. This stands in contrast to a true body image disorder in which no amount of surgical alteration will result in a decrease in the distress associated with it.

The typical facelift patient is middle aged, a time of crisis and stress. There are increasing situational stresses with their lives, as children are often leaving home or they may be going through divorces.<sup>2</sup> There are certain positive characteristics that are essential in dealing successfully with middle age. These include having a flexible attitude toward others, healthy sense of self-regard, ability to realize one's own limitations, willingness to ask for and accept help, and a variety of interests. Facelift patients often are deficient in many of these characteristics.<sup>9,15,16</sup> Webb et al<sup>15</sup> showed, although dated, their average facelift patient as a 48-year-old Protestant white woman with a high school education living an upper middle class lifestyle. This has changed over time, as the American Society of Plastic Surgeons reports the number of Caucasian patients has declined while patients of other ethnicities that have cosmetic surgery has been rising. In 2002, 84% of patients were Caucasian. In 2008, it had declined to 73%. Hispanic patients over the same period rose from 6 to 10% of patients and African American patients rose from 6 to 8%.<sup>17</sup>

Webb et al<sup>15</sup> described 72 facelift patients, 48 of which had been referred for psychiatric evaluation. Of these 48, 34 (70%) had been assigned psychiatric diagnoses (albeit not serious ones). The most common included neurotic depressive reaction, emotional unstable personality, and passive dependent personality. Of the cohort of 72 patients, 15 (21%) had psychiatric treatment for emotional disturbance of a mild to moderate degree at some point in the past. In comparison, a major depressive disorder affects 14.8 million

American adults, approximately 6.7% of the U.S. population age 18 and older in a given year.<sup>18</sup> Approximately one in five adults in the United States (43.8 million or 18.5%) experience some form of mental illness in a given year.<sup>19</sup>

### Body Image and Cosmetic Surgery

Body image is defined as the perception of oneself over time. This is a complicated concept, as it encompasses perceptions, thoughts, and feelings about the body. There can be many different outside influences, including development, perception, and sociocultural. Ultimately, body image is the way we see ourselves and the way we perceive others to see us. Sarwer and Crerand described the importance of physical appearance in daily life, as those considered physically attractive received preferential treatment in nearly every situation, including employment, medical care, legal proceedings, and romantic encounters. There were four elements that made up one's body image: the physical reality of appearance, the perception of appearance, the relative importance of appearance, and the degree of dissatisfaction with appearance.<sup>20</sup>

Franzoi and Koehler<sup>21</sup> compared the attitudes toward body image in young and elderly adults. They found that the elderly displaced more negative attitudes toward body features typically associated with facial attractiveness (lips, eyes, cheek/cheekbones). They noted that with aging, the differences moved them further from the cultural beauty standard. This supports Sarwer and Crerand<sup>20</sup> who felt that the dissatisfaction with one's appearance is the principal motivator for seeking cosmetic surgery.

Fooker<sup>22</sup> demonstrated that health variables and comorbidities were of little to no significance in explaining the development and/or maintenance of sexual interest and activity in old age. It is one's sense of body image that was the determinant of well-being and keeping sexuality alive with progressive aging. Vamos et al<sup>23</sup> looked at body image concerns in relation to hand appearance in those with rheumatoid arthritis (RA). They found that negative feelings about one's hands were a significant predictor for those who desired surgery and remained significant when accounting for age, duration of arthritis, grip strength, and objective ratings of hand attractiveness. This suggests that in patients with RA, their self-perception of their hands and their associated emotional response plays a large role in those who elect to have cosmetic hand surgery. This aligns with ideas proposed by several authors that body image is linked to appearance and is an integral part of the psyche, which is a powerful motivator throughout one's lifetime.<sup>2,8,9,15,20</sup>

### Female Facelift Patient Characteristics

Webb et al<sup>15</sup> characterized facelift surgery patients into groups by their age. They classified the age 29 to 39 the "emotionally dependent group." This group was characterized as insecure and had difficulty with adult responsibilities. Those who were married were extremely emotionally dependent on their significant others, and those

who were widowed were unable to develop new relationships. Those with children displayed difficulty assuming the parental role, and their feelings toward their own parents were both hostile and dependent.

The 40 to 50 age group was termed the “worker group.” This group included patients with stable relationships who were committed to their work. Their most important relationships were with their coworkers. Of all the groups, they displayed the greatest anxiety and ambivalence about aging.

The over 50 age group was termed the “grief group.” They were characterized by grief reactions, with 90% of patients having lost someone important to them within 5 years of their consultation. Sixty percent of patients displayed continued grief following the death of a loved one or separation from their children. However, they viewed accepting outside help from others as a weakness, being described as “hyper-independent” in attitude. This differed from the younger dependent patients. In comparing eight facelift patients with seven control patients, Webb et al showed that facelift patients were ambivalent about close relationships and feared intimacy and dependency. They were more likely than the control group to suffer from depression, loneliness, grief, and loss. One of the most important things to them was the feeling of achievement. They remained excessively concerned about aging and the possibility of future abandonment. They were more sensitive to the discrepancy between their physical appearance and inner nature.

Goin et al<sup>8</sup> described a cohort of 50 female facelift patients (average age of 56 years) who underwent semistructured psychiatric interviews and testing of their personalities. Of the cohort, 75% of patients financed their operations themselves, with 54% of patients married, 24% divorced, 18% widowed, and 4% single. In contrast to the Webb et al’s series,<sup>15</sup> they found that overall the group was fairly normal, with 76% achieving normal scores on the Minnesota Multiphasic Personality Inventory (MMPI), and 24% had a mildly abnormal score, displaying personality characteristics such as passive-aggressive personality, introverted personality, impulsive character disorder, and hysterical personality. There were no psychotic patients in the cohort. Fifty percent of the women were perfectionistic in nature, with high expectations of themselves and inability to admit mistakes. This perfectionistic personality has been described as one of the dangerous personality types to operate on (► Fig. 1).<sup>24</sup> Goin et al<sup>8</sup> described two predominant personality patterns, the first being aggressive, assertive, energetic people with the tendency to display poor judgment in sexual or social situations, while the second group would appear to be extroverted and socially outgoing, but maintain superficiality in their personal relationships.

### Male Facelift Surgery Patients

Edgerton et al<sup>6</sup> described a cohort of eight male patients, two of which underwent operations. All eight had a history of emotional illness and had psychiatric diagnoses by the psychiatrists in their study. Unlike female patients, no males had the loss of someone close to them as a motivation for

surgery. These patients displayed a closer relationship with their mothers and were often hostile toward their fathers. They displayed excessively high personal expectations, which were a stark contrast to their otherwise dependent and passive orientation. Edgerton et al suggested at that time that a facelift may help a male patient, but should only be undertaken in conjunction with a psychiatrist. In contrast, Baker<sup>25</sup> felt the only problem with operating on male facelift patients was hiding their scars.

Litner et al<sup>14</sup> showed a higher level of dysfunction in male patients compared with females. This higher baseline also had a larger improvement in postoperative quality of life in the male demographic as well. The one subcategory that did worsen after surgery in males was “self-consciousness of facial appearance.” This could have been secondary to social stigma associated with males and cosmetic surgery, healing time, or less ability to camouflage the incisions.

### Motivations for Facelift Surgery

The motivations behind surgery vary extensively from person to person and true motivations may even remain subconscious. Edgerton et al<sup>6</sup> categorized motivations based upon their age classifications. As noted, the “emotionally dependent group” (age 29–39) displayed histories of internal psychological conflicts. They are often of a lower income and because of this are highly motivated due to the expensive nature of the operation. In contrast, the “worker group” (age 40–50) were motivated by the effect their more youthful/attractive appearance would have on their careers. The “grief group” (older than 50 years of age) were characterized as lonely and depressed, with two-thirds grieving over the death of a loved one. Their main motivations tended to be gaining self-confidence, self-esteem, and a new chance to make friends.

Male patients were often in the midst of making critical life decisions at the time of operation. They hoped their operation would allow them to achieve an idealized personality, make them self-sufficient and vigorous, and free them from any signs of aging.

In Goin et al’s series,<sup>8</sup> 20 patients of the original cohort of 50 underwent extensive psychiatric test and evaluations. They were extensively counseled during consultation that the “correct motivation” for seeking a facelift was to feel better about themselves and not to please or change the way others saw them. The patients agreed and would even go so far as to shake their heads at the idea of anyone being foolish enough to influence others with an aesthetic operation. All patients subsequently did psychiatric long-term evaluation and follow-up during which it was revealed that their agreement and understandings of the surgeon’s point about motivations was superficial and done so that the surgeon would see them as being an ideal patient. Of the 20 patients, 12 (60%) would later go on to reveal their true “foolish” motivations to the psychiatrist. In some of the cases, their true motivations were not consciously recognized by the patient until postoperatively.

The groups with different postoperative motivations fell mainly into three groups. First were women who

Patient Type	Characteristics	Problem
Having a life crisis	Loss of marriage, job, family member; loss of sexual identity, personal freedoms, or function from illness	Motivation is from crisis itself leading to unrealistic expectations that surgery will bring positive changes to life
Unhappy	Mood disorders, personality disorders, extreme pessimists	Exaggerate negative impact of events, likely to be dissatisfied with any result
Cross-cultural	Want to change characteristic ethnic appearance (e.g., Asian eyelid, Mediterranean nose) without partner/family approval/input	Unhappiness from lack of family and social support easily transferred to the surgeon
Psychologically estranged	Patients with borderline, histrionic, obsessive-compulsive or narcissistic personality disorders, SIMON (single, immature, male, obsessive, narcissistic) syndrome	Perfectionism, inflexibility, unrealistic expectations, lack of identity, splitting behavior, verbal or physical threats
Body dysmorphic disorder (BDD)	Disturbed self-image, preoccupied by absent or minimal deformity	High rates of dissatisfaction, fail to diminish concerns
Sexually dysfunctional	Patient who has functional and/or psychological sexual dysfunction	Delusional thoughts about the nose with expectations to improve underlying pathology
Package of pictures syndrome	Patient brings photographs of celebrities with detailed markings of their desires	Unrealistic expectations, failure to recognize that the goal is improvement, not perfection, high rates of dissatisfaction
Exceptionalism	Show up late, are rude to staff, demand special attention and scheduling, enhanced sense of entitlement	High rates of narcissism, less willing to accept shared responsibility of surgery including postoperative care
My theory syndrome	Poor listeners, fixated on explaining their own theories, make their own diagrams and drawings, dominate the consult and interrupt frequently	Unrealistic or misunderstood expectations, forget key information/instruction
Goldilocks syndrome	Patients with prior work who want "just one little detail" fixed to make the operated part appear "perfect"	Similar to but less severe than BDD, they are "are happy, but . . ."; high rates of revisions sought with dissatisfaction
Exhausted surgeon syndrome	Have seen and exhausted every surgeon in the area, manipulative tendencies with flattery and praise preoperatively	Quick to feel let down by their surgeon, have associated depression/anxiety, insomnia, often medical/paramedical
Unfocused personality	Reluctant to specifically define a complaint and shift this burden of decision to the surgeon	Surgeon bears sole responsibility for undesirable outcome and patient's exacerbated sense of loss of identity

**Fig. 1** 12 Dangerous personality types to be avoided for cosmetic surgery (adapted from Karimi and Adamson,<sup>3</sup> and Adamson and Chen<sup>24</sup>).

preoperatively expressed realistic expectations such as improving sagging skin and appearance. Their motivations were later found to be a desire for greater involvement with younger people or the belief the operation would make them feel physically younger. These patients would often discuss the nature of modern society to be youth-centered and how social and cultural options were more limited with aging. The abandonment by friends, family, and society in general was a big fear of theirs. These patients displayed insight into their motivations, knowing their expectations were illogical. Likely in part due to this, those patients who did not achieve their goal accepted the situation relatively well.

The second group of patients had a motivation of reawakening their husband's interest and improving their marriages. One patient believed that her operation might cure her husband's impotence. She underwent an episode of anxiety and irritability during her fifth postoperative week, which was diagnosed as the flu by her general practitioner. It may have actually been an agitated depression

brought on by the realization that her facelift had not changed her husband's situation. The third group of patients had miscellaneous motivations, including getting better jobs. A minister realized her motivation had been for her own "vanity" as opposed to increasing her ability to help others as she had preferred to think. Interestingly, the unrealistic motivations had no influence on these patients' overall assessment of their results. Patients with unrealistic "magical" expectations had the same satisfaction with the operation as those with realistic expectations.

Of the 20 patients, 8 had no changes in postoperative motivations. They had been open preoperatively with motivations such as improving relationships with others or expressing the fear of abandonment by younger people.

### Patient Satisfaction Following Facelift Surgery

Leist et al<sup>26</sup> described a series of 324 facelift patients and reported that 40% of patients complained about some aspect of

their surgery. They noted a dissatisfaction rate of 12.6% patients complaining of things such as the operation not lasting long enough, the results were not worth the cost, or that not enough was done and 11.8% of dissatisfied patients complaining of unacceptable scarring. In a later series by Goin et al,<sup>8</sup> 60% of patients regarded their results as excellent and 38% rated it as good. Edgerton et al<sup>6</sup> had patients, surgeon, psychiatrist, and neutral third-party rate the results of patient facelifts 2 to 12 years after the operation. Ninety-four percent of patients (60/64) rated their results as “excellent,” with the remainder as “good.” The surgeon was a bit more critical, rating 83% (53/64) of the same cohort as “excellent,” 14% (9/64) as “good” and 3% (2/64) as “fair.” The third-party was in the middle, with 89% (57/64) rated as “excellent,” 8% rated as “good,” and 3% (2/64) rated as “fair.” These operations were much more extensive than many of today’s facelift methods, including coronal incisions along with a mastoid incision brought posteriorly to meet in the posterior midline of the neck with a large triangle of skin removed. Edgerton et al would go on to state that “every patient receiving rhytidectomy at Johns Hopkins Hospital told us that she was glad she had the operation.”

Sinno et al<sup>27</sup> used the FACE-Q patient reported outcome instrument to assess 105 patients undergoing facelift procedure by a single author in areas including psychological well-being. Overall satisfaction rate with their appearance was high, scoring 80.7 on the 100-point scale. Psychological well-being (92.8), early life impact (92.2), and social confidence (90.4) all scored well. Specifically, patients were most satisfied with the appearance of their nasolabial folds (86.2), cheeks (86.1), and lower face/jawline (86.0). The least satisfaction occurred with the area under the chin (67.9).

### Psychological Improvements from Facelifting

In Leist et al’s study,<sup>26</sup> 85% of patients reported an improved sense of well-being. They noted improved ease in social situations, a decrease in derogatory feelings about oneself, and improved satisfaction with their status in life. Also, 25% of patients reported their work situation improved. More than half of patients noted a positive change in their lives after the operation, such as a new job, marriage, promotions or raise. Some noted new relationships or termination of a bad relationship. Interestingly, 36 of the patients were followed postoperatively and 16 were subsequently diagnosed or noted in record review to be moderately or severely depressed at the time of surgery.

Goin et al<sup>8</sup> noted 98% of patients reported good or excellent results when the patients subjectively rated their improvement. Fifty-two percent of patients were judged by psychiatrists to demonstrate psychological improvement. Twenty-eight percent of patients had improved self-esteem and self-confidence. Improved ability to cope with their lives was found in 8%. Another 8% noted more confidence and assertiveness in their work. A further 8% who were grieving a loved one at the time of operation found their grief diminished significantly after the operation and remained improved throughout the study period. Despite the high

incidence of postoperative depression (54%), there was a small reduction in the subjective feeling of depression during the postoperative period on the Beck Depression inventory.

Recently, Jacono et al<sup>28</sup> were able to demonstrate a significant increase in self-esteem in facelift patients who started out with low levels but not with average or high levels. Alves et al<sup>29</sup> reported a prospective study of 32 facelift patients with self-esteem scores significantly improving at 2 and 6 months postoperatively. They also showed improvement in mental health subscale scores on a validated psychometric instrument, especially with depression and anxiety.

Friel et al<sup>30</sup> reported a patient satisfaction rate of 97.8% at 1 year after facelift surgery and 68.6% at 12.6 years using the Owsley Facelift Satisfaction Score. Liu and Owsley<sup>31</sup> further subdivided the patients based on age groups; greater satisfaction was seen among the younger patients at both time intervals (1 and 12.6 years). The authors analyzed photographic results of patients from their survey and found that the younger age group consistently scored higher positive ratings and had longer lasting improvement of their main anatomical area of correction.

### Impact of Cosmetic Surgery on Quality of Life

Litner et al<sup>14</sup> were able to demonstrate a significant improvement on a validated quality-of-life survey for cosmetic surgery patients, including both rhinoplasty and aging face. The greatest improvement occurred in the “general self-consciousness of appearance” category, with the least improvement noted in the “self-consciousness of sexual and bodily appearance” Category. Men had higher baseline levels of distress preoperatively and had a greater overall percentage improvement in their scores postoperatively. Age was also an important factor, as the greatest percentage improvement in quality-of-life scores was noted in those older than 50 years of age. The youngest age group actually had a deterioration in scores for “self-consciousness of sexual and bodily appearance” and “facial appearance” on their postoperative surveys. The rhinoplasty patients in this cohort had a higher improvement in quality of life than those undergoing aging-face procedures. This difference was primarily seen in the “general self-consciousness of appearance” and “negative self-concept” categories. Patients undergoing aging-face procedures had a larger quality-of-life improvement in the “self-consciousness of facial appearance” and “sexual and bodily appearance satisfaction” categories.

### Postoperative Psychological Reactions

Goin et al<sup>8</sup> noted some sort of psychological disturbance at some point in the postoperative period in 54% of the patients. There was no statistical correlation between the occurrence of these disturbances, and preoperative expectations, marital status, bereavement, relationship with spouse or children, paying for the operation themselves, surgeon’s feelings toward the patient being a good/

bad patient, patient concerns about death, or the occurrence of postoperative complications.

There were four distinct groups among the patients who experienced psychological disturbances during the postoperative period. The first group displayed depression or anxiety within the first 5 postoperative days that disappeared by the end of the first week. The second group displayed transient episodes of depression during the second/third postoperative weeks, while the third group of patients had depression noted in the first 5 postoperative days that continued for several weeks afterward. The last group was depressed during the second/third week postoperatively and remained depressed for several weeks, with two of these patients displaying signs of depression 6 months after their operation.

All patients took a psychological test called FIRO-B (Fundamental Interpersonal Relations Orientation—Behavior), which assessed the patients' wish or need to be controlled by others as opposed to controlling their own life. Women in the third group (with depression developing a few days after the operation) had a lower than average desire to be controlled. All of these patients desired the facelift procedure to look younger and actually slow or stop the aging process itself. The social and emotional support system around these women was almost nonexistent.

Women in the fourth group (with depression beginning 2–3 weeks after surgery) were above average in their desire to be controlled, and were much lower than the group as whole in their wish to control their own life. In contrast to the third group, nobody in this group expected their operation to change the aging process. These patients also had a strong support system around them. Their higher scores on the MMPI scale indicated higher levels of neurosis than the other patients as they tended to be introverted and complaining in nature. This group also rated their surgical outcome as much lower than the other patients.

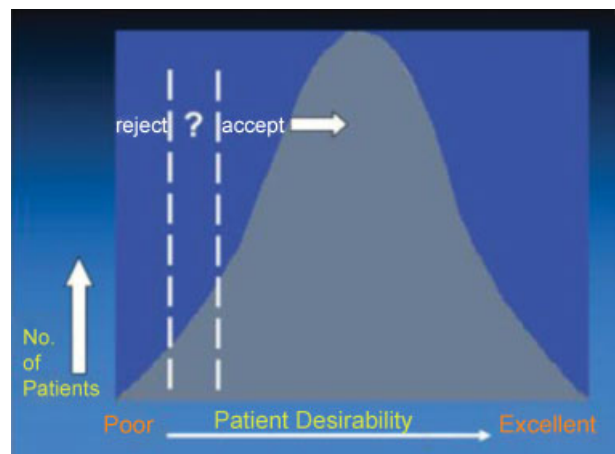
## Predictors of Patient Satisfaction

Goin et al<sup>8</sup> showed that in patients with preexisting depression (clinical or subclinical), postoperative depression was much more likely to develop than those without depression at the time of facelift surgery. Patients who expressed preoperatively the desire for self-image improvement were significantly more likely to experience postoperative psychological improvement, while conversely those undergoing the operation to improve jobs were unlikely to experience psychological improvement. Patients who had previously undergone a successful aesthetic operation were less likely to develop postoperative psychological disturbances. If the patient was noted to make the surgeon feel good about his/her work, then that patient was more likely to exhibit a positive mood, describe the operation as a success, complain less, and show fewer psychological symptoms. Interestingly, the reverse held true as well. A systematic review of negative predictive factors for facial cosmetic surgery identified male sex, young age, unrealistic expectations, minimal deformities, demanding patients, "surgiholics," relationship or familiar disturbances, obsessive personality, and narcissistic personality as significant

factors.<sup>32</sup> Other papers have additionally cited body dysmorphic disorder, gender reassignment procedures, and sensory changes as being high risk for negative outcomes.<sup>10,33</sup>

## Clinical Implications of Psychology in Selecting Surgical Rejuvenation Patients

While many patients who seek cosmetic surgery meet some criteria for a psychiatric diagnosis, a large review of 37 studies evaluating psychological and psychosocial outcomes of cosmetic surgery found that the majority of these patients achieve a good outcome and are satisfied.<sup>34,35</sup> Specific diagnoses associated with dissatisfied patients and/or poor psychological outcomes include body dysmorphic disorder, narcissistic personality disorder, and histrionic personality disorder, which occur in patients seeking cosmetic surgery with a prevalence of 5 to 15%, 2 to 16%, and 9.7%, respectively.<sup>36</sup> Furthermore, predictors of a poor outcome included being male, younger, having a psychiatric history, motivations influenced by a relationship, unrealistic expectations, previous surgical procedure that lead to dissatisfaction, and minimal deformity. Patients to be approached with caution have been described as "the dangerous dozen" and are detailed in ►Fig. 1.<sup>24</sup> Unlike some previous studies,<sup>37,38</sup> another study demonstrated psychosocial outcomes of male elective cosmetic surgery patients when matched with their female counterparts as having more dissatisfaction postoperatively, but not any statistically higher incidence of psychological disorders or disturbances.<sup>39</sup> Ideally, a linear correlation would exist between the degree of deformity and degree of patient concern, which would help in the decision regarding when to operate (►Fig. 2). However, this has not been shown to be the case.



**Fig. 2** Normalized distribution of patient desirability (from Karimi and Adamson<sup>3</sup>). This diagram illustrates that a small percentage of patients are excellent candidates with realistic concerns and expectations, as well as good physical and psychological health. A small percentage are poor candidates (left on the x-axis), who do not demonstrate any or all of these characteristics and should not be operated upon. The majority of the patients are in-between and are manageable with a reasonable expectation of a positive outcome. Patients in roughly the 10th to 20th percentile are those who require the highest level of assessment to determine if they are or are not surgical candidates.

The importance of appropriate preoperative screening of psychological and psychosocial nature cannot be emphasized enough. Body dysmorphic disorder patients suffer from poorer quality of life compared with patients suffering from significant medical illnesses such as type 2 diabetes, obsessive compulsive disorder, bipolar disorder, and schizophrenia. Furthermore, 25% of body dysmorphic patients will have attempted suicide.<sup>40–42</sup> While questionnaires and surveys may be helpful in aiding to identify possibly problematic patients, often the surgeon's intuition with regard to discomfort with a patient may be the primary indicator.

### Patient Selection Process

It is important to “think slow” and assess intellectually and professionally the patient seeking elective rejuvenation surgery. It is equally important to “think fast” and listen to one's so-called gut-instincts. All of this often must be elicited during the initial consultation. It is the preference of the senior author (P. A. A.) to go about this process asking questions including motivations for surgery, effect of potential surgery on their lives, the most important person in their life, and amount of time they spend thinking about their face. Reconciliation of thinking and further exploration with the patient to acquire the information and feelings to make both the patient and surgeon as comfortable as possible in deciding upon treatment is an important aspect of the first encounter.

### Conclusions

Patient selection remains one of the most important skills a surgeon must master to achieve optimal results. Although surgeons tend to emphasize technical skills, objective results, and new innovations, patient satisfaction derived through good patient selection is an integral component of a successful practice and professional gratification. The patient selection process for facelift patients is not vastly different from other aesthetic procedures other than that patients with paranoid trends should ideally be identified. Facelift surgery can be a very effective operation at improving quality of life and self-esteem in the correct patient. Buhler<sup>43</sup> wrote that the qualities one needs to have a smooth adjustment to middle age and beyond include having a variety of interests, flexible viewpoint of others, and a healthy self-regard. As Webb et al<sup>15</sup> noted, facelift patients are often deficient in these qualities. They tend to be rigid in their attitudes and unable to accept help easily. Many patients are depressed, whether clinically or subclinically, at the time of operation. This depression may lead to increased postoperative psychological reactions.

Notwithstanding some of these findings, patient satisfaction levels for facelift procedures are well above 95%. Patients enjoy an improved quality of life and often improved self-esteem. Beauty, social, cultural, personality, and character norms are evolving continuously. Continued higher level studies would be beneficial to further delineate how as facial plastic surgeons we can select the best

patients to achieve the most ideal objective and subjective results.

### References

- 1 American Society of Plastic Surgeon. New statistics reflect the changing face of plastic surgery. Available at <https://www.plasticsurgery.org/news/press-releases/new-statistics-reflect-the-changing-face-of-plastic-surgery>. Accessed October 15, 2016
- 2 Goin JM, Goin MK. *Changing the Body: Psychological Effects of Plastic Surgery*. Baltimore, MD: Williams & Wilkins; 1981
- 3 Karimi K, Adamson P. Patient analysis and selection in aging face surgery. *Facial Plast Surg* 2011;27(1):5–15
- 4 Edgerton MT, Jacobson WE, Meyer E. Surgical-psychiatric study of patients seeking plastic (cosmetic) surgery: ninety-eight consecutive patients with minimal deformity. *Br J Plast Surg* 1960; 13:136–145
- 5 Edgerton MT, Meyer E, Jacobson WE. Augmentation mammoplasty. II. Further surgical and psychiatric evaluation. *Plast Reconstr Surg Transplant Bull* 1961;27:279–302
- 6 Edgerton MT, Webb WL Jr, Slaughter R, Meyer E. Surgical results and psychosocial changes following rhytidectomy. *Plast Reconstr Surg* 1964;33:503–521
- 7 Baker JL Jr, Kolin IS, Bartlett ES. Psychosexual dynamics of patients undergoing mammary augmentation. *Plast Reconstr Surg* 1974; 53(6):652–659
- 8 Goin MK, Burgoyne RW, Goin JM, Staples FR. A prospective psychological study of 50 female face-lift patients. *Plast Reconstr Surg* 1980;65(4):436–442
- 9 Goin MK, Rees TD. A prospective study of patients' psychological reactions to rhinoplasty. *Ann Plast Surg* 1991;27(3):210–215
- 10 Wright MR, Wright WK. A psychological study of patients undergoing cosmetic surgery. *Arch Otolaryngol* 1975;101(3):145–151
- 11 Meningaud JP, Benadiba L, Servant JM, Herve C, Bertrand JC, Pelicier Y. Depression, anxiety and quality of life: outcome 9 months after facial cosmetic surgery. *J Craniomaxillofac Surg* 2003;31(1):46–50
- 12 Harris DL, Carr AT. The Derriford Appearance Scale (DAS59): a new psychometric scale for the evaluation of patients with disfigurements and aesthetic problems of appearance. *Br J Plast Surg* 2001;54(3):216–222
- 13 Cook SA, Rosser R, Toone H, James MI, Salmon P. The psychological and social characteristics of patients referred for NHS cosmetic surgery: quantifying clinical need. *J Plast Reconstr Aesthet Surg* 2006;59(1):54–64
- 14 Litner JA, Rotenberg BW, Dennis M, Adamson PA. Impact of cosmetic facial surgery on satisfaction with appearance and quality of life. *Arch Facial Plast Surg* 2008;10(2):79–83
- 15 Webb WL Jr, Slaughter R, Meyer E, Edgerton M. Mechanism of psychosocial adjustment in patients seeking “face-lift” operations. *Psychosom Med* 1965;27:183–192
- 16 Goin MK, Burgoyne RW, Goin JM. Face-lift operation: the patient's secret motivations and reactions to “informed consent”. *Plast Reconstr Surg* 1976;58(3):273–279
- 17 Plastic Surgery Portal. Plastic surgery demographics. Available at <http://www.plasticsurgeryportal.com/articles/plastic-surgery-demographics>. Accessed October 15, 2016
- 18 American Psychological Association. Data on behavioral health in the United States. Available at <http://www.apa.org/helpcenter/data-behavioral-health.aspx>. Accessed October 15, 2016
- 19 National Alliance on Mental Illness. Mental health by the numbers. Available at <http://www.nami.org/Learn-More/Mental-Health-By-the-Numbers>. Accessed October 15, 2016
- 20 Sarwer DB, Crerand CE. Psychological issues in patient outcomes. *Facial Plast Surg* 2002;18(2):125–133
- 21 Franconi SL, Koehler V. Age and gender differences in body attitudes: a comparison of young and elderly adults. *Int J Aging Hum Dev* 1998;47(1):1–10

- 22 Fookien I. Sexuality in the later years—the impact of health and body-image in a sample of older women. *Patient Educ Couns* 1994;23(3):227–233
- 23 Vamos M, White GL, Caughey DE. Body image in rheumatoid arthritis: the relevance of hand appearance to desire for surgery. *Br J Med Psychol* 1990;63(Pt 3):267–277
- 24 Adamson PA, Chen T. The dangerous dozen—avoiding potential problem patients in cosmetic surgery. *Facial Plast Surg Clin North Am* 2008;16(2):195–202, vii
- 25 Baker TJ. Patient selection and psychological evaluation. *Clin Plast Surg* 1978;5(1):3–14
- 26 Leist FD, Masson JK, Erich JB. A review of 324 rhytidectomies, emphasizing complications and patient dissatisfaction. *Plast Reconstr Surg* 1977;59(4):525–529
- 27 Sinno S, Schwitzer J, Anzai L, Thorne CH. Face-lift satisfaction using the FACE-Q. *Plast Reconstr Surg* 2015;136(2):239–242
- 28 Jacono A, Chastant RP, Dibelius G. Association of patient self-esteem with perceived outcome after face-lift surgery. *JAMA Facial Plast Surg* 2016;18(1):42–46
- 29 Alves MC, Abla LE, Santos RdeA, Ferreira LM. Quality of life and self-esteem outcomes following rhytidoplasty. *Ann Plast Surg* 2005;54(5):511–514, discussion 515–516
- 30 Friel MT, Shaw RE, Trovato MJ, Owsley JQ. The measure of face-lift patient satisfaction: the Owsley Facelift Satisfaction Survey with a long-term follow-up study. *Plast Reconstr Surg* 2010;126(1):245–257
- 31 Liu TS, Owsley JQ. Long-term results of face lift surgery: patient photographs compared with patient satisfaction ratings. *Plast Reconstr Surg* 2012;129(1):253–262
- 32 Herruer JM, Prins JB, van Heerbeek N, Verhage-Damen GW, Ingels KJ. Negative predictors for satisfaction in patients seeking facial cosmetic surgery: a systematic review. *Plast Reconstr Surg* 2015;135(6):1596–1605
- 33 Castle DJ, Honigman RJ, Phillips KA. Does cosmetic surgery improve psychosocial wellbeing? *Med J Aust* 2002;176(12):601–604
- 34 Malick F, Howard J, Koo J. Understanding the psychology of the cosmetic patients. *Dermatol Ther (Heidelb)* 2008;21(1):47–53
- 35 Honigman RJ, Phillips KA, Castle DJ. A review of psychosocial outcomes for patients seeking cosmetic surgery. *Plast Reconstr Surg* 2004;113(4):1229–1237
- 36 Napoleon A. The presentation of personalities in plastic surgery. *Ann Plast Surg* 1993;31(3):193–208
- 37 Gorney M. Cosmetic surgery in males. *Plast Reconstr Surg* 2002;110(2):719
- 38 Rohrich RJ. The man as a cosmetic surgery patient: the weaker sex? *Plast Reconstr Surg* 2001;108(7):2098–2099
- 39 Dowling NA, Honigman RJ, Jackson AC. The male cosmetic surgery patient: a matched sample gender analysis of elective cosmetic surgery and cosmetic dentistry patients. *Ann Plast Surg* 2010;64(6):726–731
- 40 Phillips KA, Dufresne RG. Body dysmorphic disorder. A guide for dermatologists and cosmetic surgeons. *Am J Clin Dermatol* 2000;1(4):235–243
- 41 Phillips KA. Quality of life for patients with body dysmorphic disorder. *J Nerv Ment Dis* 2000;188(3):170–175
- 42 Phillips KA, Diaz SF. Gender differences in body dysmorphic disorder. *J Nerv Ment Dis* 1997;185(9):570–577
- 43 Buhler C. The curve of life as studied in biographies. *J Appl Psychol* 1935;19:405