A review of psychosocial outcomes for patients seeking cosmetic surgery
Honigman R J, Phillips K A, Castle D J

CRD summary
This review concluded that most patients undergoing cosmetic surgery appear to have good psychological and psychosocial outcomes after surgery, but there may be several possible predictors of poor outcomes. These conclusions should, however, be viewed with caution given the inclusion of a large number of diverse studies with significant methodological limitations.

Authors' objectives
To determine the psychological and psychosocial outcomes of cosmetic surgery, and to assess whether there are identifiable predictors of an unsatisfactory psychological outcome.

Searching
MEDLINE, PsycLIT, PubMed, PsycINFO, Sociological Abstracts, Social Work Abstracts, ProQuest 5000, Web of Science and CINAHL were searched; search terms, but not search dates, were reported. Reference lists were also screened.

Study selection
Study designs of evaluations included in the review
The authors did not specify which types of study were eligible for inclusion in the review.

Specific interventions included in the review
Studies of any cosmetic surgical technique were eligible for inclusion. The surgeries included in the review were mainly rhinoplasty, and reduction and augmentation mammaplasty; however, a variety of other surgeries were also included.

Participants included in the review
Individuals undergoing cosmetic surgery were eligible for inclusion. The majority of participants included in the review were female.

Outcomes assessed in the review
Eligible studies had to report subjective ratings of satisfaction with the cosmetic procedure, as well as an assessment of change in psychological and psychosocial variables such as distress, body image, self-esteem, mood, social confidence, social interaction and quality of life. Studies that only reported the patients' views of the actual surgical outcome in physical terms were excluded. The studies included in the review reported a wide range of outcomes and measures.

How were decisions on the relevance of primary studies made?
The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they assessed validity. They did, however, discuss methodological problems of the included studies.

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction. The data appears to have been extracted as reported in the original study reports.

Methods of synthesis
How were the studies combined?
The review findings were discussed in a narrative.

How were differences between studies investigated?
Some differences between the studies were evident from the data table and some were discussed in the text of the review. The studies were grouped according to cosmetic procedure.

**Results of the review**

Thirty-seven studies (the total number of participants is unclear), of which 11 used controls, were included in the review. The sample size ranged from 8 to 486.

Methodological problems included: small sample size; ascertainment bias; lack of reliable and valid outcome measures; short duration of follow-up; poorly defined outcome measures; and lack of control groups.

All studies of women undergoing reduction mammaplasty (6 studies, n=711) reported high rates of satisfaction (86 to 97%) with the surgical procedure. Improvements were also reported in psychological health, including enhanced body image and diminished distress. Where reported, reductions in physical symptoms associated with large breasts were also recorded. Similarly, high levels of overall satisfaction (78 to 90%) with the surgical procedure were also reported for augmentation mammaplasty (8 studies, n=769). Self-esteem, social confidence, attractiveness and satisfaction with body image were also reported to be improved.

High rates of satisfaction along with enhanced social confidence were also reported in the majority, but not all, rhinoplasty studies.

One study of face lift patients (n=71; mean age 48 years) reported high rates of satisfaction and an ‘improved sense of well-being’. However, a subsequent study of older patients (n=50; mean age 56 years) found high rates of psychological disturbance after surgery, with transient depression experienced by one third of the patients. The outcome data were limited to 6 months post-surgery so the longer-term outcomes of the patients were not reported.

Nine studies reported improvements in social functioning, relationships and general quality of life after cosmetic surgery procedures. A number of studies also reported no changes in personality profiles after surgery.

Fourteen studies specifically investigated predictors of poor outcome after surgery, but none used rigorous methods or assessed the degree of variance. However, overall, there was some agreement that the following factors were associated with a poor outcome: being male (3 studies); being younger (3 studies); history of depression or anxiety (6 studies); dysmorphophobia (1 study); narcissistic or borderline personality disorder (3 studies); belief that surgery would save a relationship or a disagreement between partners (3 studies); unrealistic expectations of surgery (3 studies); dissatisfaction with a previous surgical procedure (3 studies); and minimal deformity (1 study).

**Authors' conclusions**

Most patients undergoing cosmetic surgery appear to have good psychological and psychosocial outcomes after surgery. Despite this, several possible predictors of poor outcomes are evident. These conclusions should, however, be viewed with caution given the significant methodological limitations of the studies.

**CRD commentary**

This review answered a clearly defined but broad research question in terms of the intervention, population, outcomes and study design. A number of databases were searched for studies, but the authors did not report when these searches were carried out. However, it is evident that the earliest studies date to 1960. It is also unclear whether publication and language bias might have had an effect, as the authors did not report whether language restrictions were used and what specific attempts were made to locate unpublished material. The authors also failed to report how studies were selected for inclusion and how the data were extracted, thus the potential for reviewer error and bias cannot be assessed. No formal assessment of study validity appears to have been carried out, although the authors did discuss various methodological problems and stated that all of the studies suffered from some failings in terms of their design. Without a formal assessment of individual study quality, however, it is difficult to assess the reliability of the study findings.

Few individual study details were given and the website to which the authors referred for further details was inaccessible. Given the broad inclusion criteria and the varying interventions, populations, outcomes and study designs included, the use of a narrative synthesis appears reasonable. Overall, in view of the methodological shortcomings of
the studies and the high degree of heterogeneity observed, the authors are justified in advising caution when interpreting their findings.

**Implications of the review for practice and research**

**Practice:** The authors did not state any implications for practice.

**Research:** The authors stated that further research is required into how to identify patients who are at an increased risk of a poor outcome after cosmetic surgery. Such studies should adequately describe the characteristics of the participants (e.g. whether they have body dysmorphic disorder); use a prospective design; use standardised state-of-the-art measures; and clearly describe the outcomes used. The authors also stated that further research into the development of empirically-based screening questionnaires, which will assist surgeons in selecting which patients will have a good psychosocial outcome after a cosmetic procedure, is required.

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