Beauty and the eye of the beholder: social consequences and personal adjustments for facial patients*

E. M. ARNDT, F. TRAVIS, A. LEFEBVRE, A. NIEC and I. R. MUNRO
Departments of Social Work, Psychology and Psychiatry and the Division of Plastic Surgery (Department of Surgery), The Hospital for Sick Children, Toronto, Canada

Summary—Patients' pre- and postoperative self-reports were compared with reports of non-medical observers to investigate whether improved self-esteem is a direct result of increased social acceptance in maxillo- and craniofacial patients. Twenty-two children and adolescents undergoing reconstructive surgery for a variety of facial deformities were asked to rate their physical appearance on the Hay's Scale and fill out the Piers-Harris Self-Concept Scale. Their ratings were compared with scores given by a panel of lay volunteers on random presentation of pre- and postoperative photographs of the same patients.

Patients rated their appearance as noticeably improved after surgery, their self-esteem rose significantly and they reported more social adeptness and acceptance at home and school. Raters observed only relatively subtle changes. Apparently, quality of life improved for the postsurgical facial patient because of increased self-esteem and confidence, which free him to overcome social barriers.

Although Aristotle’s dictum that “Beauty is a greater recommendation than any letter of introduction” (Rozner, 1983) has only recently been subjected to scientific scrutiny, the psychological literature of the past decade seems to confirm it: attractive individuals are more likely than others to be seen as intelligent, friendly, and successful (Berscheid et al., 1971; Dion et al., 1972; Kalick, 1978). However, we still know very little about the psychosocial adjustment of patients who undergo facial reconstruction (Lefebvre and Munro, 1978; MacGregor, 1979; Lefebvre and Barclay, 1982).

Within the normal range, we know that plastic surgery confers psychosocial benefits on the patient (Edgerton et al., 1960; Hay and Heather, 1973; Kalick, 1977) but systematic studies involving patients with maxillofacial and craniofacial deformities are lacking. Instead, case reports have primarily focused on personality and behavioural characteristics, psychopathology, the way individuals cope, and the social consequences for a person with a facial deformity (MacGregor, 1979).

This pilot study was undertaken to test three of the basic premises underlying all plastic and reconstructive surgery, in terms of maxillofacial and craniofacial patients:

(i) The patient will feel more attractive, more confident, and generally happier after surgery than before it.
(ii) His increased attractiveness will result in increased social ease and appeal.
(iii) Surgery will improve his appearance in the eyes of people around him.

Materials and methods
Twenty-two patients (13 girls and 9 boys), ranging in age from 8 to 17 years when first seen, were interviewed during assessment routines by a team consisting of a psychiatrist, psychologist, and social worker. Fourteen of these patients had rather severe disorders such as Crouzon's syndrome while 8 had the less obvious deformity of a malocclusion (Table 1).

Preoperatively, patients were asked to explain why they sought facial surgery and their expectations of it, both physically and psychosocially. In addition, they were asked to rate their present facial appearance on the Hay’s Rating Scale, which
ranges from 1 (perfect feature) to 9 (marked imperfection) (Hay and Heather, 1973). They were also asked to complete the Piers-Harris Self-Concept Scale for Children, an 80-item yes-and-no questionnaire designed for children aged 6 to 18 years (Piers, 1969).

At the time of postoperative evaluations, 6 months and 2 years after surgery, the analyses were repeated and the patients were asked about the surgical experience, their satisfaction with the outcome, and possible changes in their personal and social life.

Full-sized black and white frontal and profile photographs of the patients were rated by 15 adult volunteers using the Hay's scale. There were 5 male and 10 female raters whose average ages were 37.4 and 34.2 years, respectively. The pictures were taken before and 1 year after facial surgery.

Paired t-tests were used in all within-group statistical analyses. Differences were taken to be significant when p < 0.01.

**Results**

Table 2 shows the pre- and postoperative Hay's Scale ratings (means and standard deviations, SD) for patients with severe and mild deformities, their parents, and 15 independent raters. Improvement in all postoperative ratings by patients was highly significant (every p < 0.001). The independent raters could also discern an improvement between pre- and postoperative photographs: when all the patients were considered as one group, the pre- and postoperative difference was statistically significant (t = 2.49, d.f. = 20, p = 0.0109); however, the difference for the mildly affected group was highly significant (t = 4.00, d.f. = 6, p = 0.0035), while for the severely affected children it was not significant (t = 0.89, d.f. = 13, p = 0.1945).

Table 3 shows the pre- and postoperative Piers-Harris Self-Esteem Scale scores. For both groups the scores were highly significantly different (p < 0.001).

During their postoperative interviews, all of the patients presented with increased confidence and reported improved performance at school and social acceptance after surgery. This was true for patients with severe and mild deformities. All the parents concurred with these accounts of decreased self-consciousness and reported that their children had increased motivation in academic pursuits and a more relaxed approach toward meeting strangers.

**Discussion**

Physical attractiveness is a legitimate and extraordinarily important psychological variable in the field of appearance. Attractive people are thought to be more sensitive, friendly, interesting, outgoing, and successful in their private and professional lives than unattractive individuals (Dion et al., 1972). They receive preferential social treatments

<table>
<thead>
<tr>
<th>Condition</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malocclusion</td>
<td>8</td>
</tr>
<tr>
<td>Hypertelorism</td>
<td>4</td>
</tr>
<tr>
<td>Lateral facial dysplasia</td>
<td>3</td>
</tr>
<tr>
<td>Crouzon's syndrome</td>
<td>2</td>
</tr>
<tr>
<td>Goldenhar's syndrome</td>
<td>1</td>
</tr>
<tr>
<td>Apert's syndrome</td>
<td>3</td>
</tr>
<tr>
<td>Pyle's disease</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 1  Range of conditions

Table 2  Comparison of pre- and postoperative (6 months–2 years) Hay's scale ratings by patients, their parents and the independent raters

<table>
<thead>
<tr>
<th>Group (N)</th>
<th>Preoperative 6 mo postoperative 1 yr postoperative 2 yr postoperative</th>
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<tbody>
<tr>
<td></td>
<td>Mean  SD</td>
</tr>
<tr>
<td>--------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Severely affected</td>
<td></td>
</tr>
<tr>
<td>Patients</td>
<td>6.3 1.54</td>
</tr>
<tr>
<td>Parents</td>
<td>6.2 1.37</td>
</tr>
<tr>
<td>Raters</td>
<td>6.3 1.83</td>
</tr>
<tr>
<td>Mildly affected</td>
<td></td>
</tr>
<tr>
<td>Patients</td>
<td>7.3 1.58</td>
</tr>
<tr>
<td>Parents</td>
<td>6.5 1.41</td>
</tr>
<tr>
<td>Raters*</td>
<td>4.2 1.44</td>
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</tbody>
</table>

* One patient's photograph was not available for rating.
as they elicit favourable attitudes and behaviour in a variety of settings (Berscheid and Walster, 1974; Adams and Crossman, 1978). Attractiveness plays an important role in infant and child development (Hildebrandt, 1982) and in adult activities such as dating. Allen (1978) found that it was a more important criterion for dating choices than honesty, trustworthiness, or independence. It is no surprise, then, that self-esteem is generally high in attractive people (Berscheid et al., 1971; Mathes and Kahn, 1975), who are not only socially more active than unattractive people (Berscheid et al., 1971; Krebs and Adinolfi, 1975; Hildebrandt, 1982), but also socially more polished and assertive (Jackson and Huston, 1975; Goldman and Lewis, 1977).

With the advent of modern surgical techniques, plastic and reconstructive surgery of the face has become an increasingly sophisticated instrument for intervention in a person’s life (Munro, 1979; Jackson et al., 1982). Before decisions for surgery are made, the question of whether the person requesting it would benefit from the procedure must be addressed.

Our findings confirm that patients and their families find plastic and reconstructive surgery a highly beneficial mode of intervention. Postoperative changes in terms of physical appearance, self-esteem, academic performance, and social competence affect the quality of the patients’ lives positively, giving them a feeling of well-being and vitality. However, it appears that the benefits of facial reconstruction are less obvious to the man on the street who is unaware of the patient’s surgical experience.

This study is an initial attempt to assess objectively the perceived improvements in patients with facial deformities. There are several obvious limitations to this pilot project. Our raters were few and may not have been representative of the general population. In addition, the large range of diagnostic categories produced a heterogeneous sample population. Furthermore, the black and white photographs did not give a three-dimensional representation of the patients’ appearance and colour photographs or even videotapes of the patients would perhaps be better instruments for this study. They would better allow for such nuances as facial expressions, hairstyles, and skin blemishes that may affect the ratings. Finally, the raters’ biases have not been taken into account.

A more systematic, large-scale, and long-term study is required to test these results. The specific importance of other patient variables such as age, intelligence, socioeconomic status, and nature of community in which the patients live, the quality of presurgical family adjustment, and their social network need further study as well. Nevertheless, it may be that the patient’s improved self-evaluation and confidence are the crucial variables in improving the quality of his life. If this is the case, then one can understand that his social ease is a secondary benefit after surgery that helps him overcome possible barriers of anxiety and prejudice related to his appearance. This, in turn, may positively influence society’s reactions toward the patient.

Perhaps the best judge remains the patient himself who opted for facial reconstruction.

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References


Table 3 Comparison of pre- and postoperative (6 months–2 years) Piers-Harris scores

<table>
<thead>
<tr>
<th>Group (N)</th>
<th>Preoperative</th>
<th>6 mo postoperative</th>
<th>2 yr postoperative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Severely affected</td>
<td>49.10</td>
<td>24.85</td>
<td>82.00</td>
</tr>
<tr>
<td>(14)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mildly affected</td>
<td>23.75</td>
<td>18.58</td>
<td>82.00</td>
</tr>
<tr>
<td>(8)</td>
<td></td>
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</table>

* 100% is maximum self-esteem.


The Authors

Erika M. Arndt, MA, MSW, Social Worker, Department of Social Work, The Hospital for Sick Children.

Felicia Travis, Dip Sc, Psychometrist, Department of Psychology, The Hospital for Sick Children.

Arlette Lefebvre, MD, Department of Psychiatry, The Hospital for Sick Children.

Ann Niec, BSc, Department of Psychiatry, The Hospital for Sick Children.

Ian R. Munro, MA, MB, BChir, FRCS(C), Department of Surgery, The Hospital for Sick Children.

Requests for reprints to: Mrs E. Arndt, Department of Social Work, The Hospital for Sick Children, 555 University Avenue, Toronto, Ontario, M5G 1X8.