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Psychology Input to an Orthognathic Clinic: Patients' Perception of Service Quality.

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Abstract

Aims: The aim of this study was to assess patient satisfaction with a clinical psychology service, integrated within an inter-disciplinary orthognathic planning clinic.

Method: A self-report, custom-designed questionnaire was sent to patients who had completed orthognathic treatment within the last three years. Of the 60 patients approached, 49 responded.

Results: The great majority of patients agreed that there was a need for a psychological assessment and that its purpose was adequately explained. Most patients were happy with the information given during their appointment and found

the experience helpful. A number of patients felt that additional appointments would have been helpful shortly before, and after, surgery.

Conclusions: The group of orthognathic patients studied found the pre-treatment psychology assessment, provided for them through the combined clinic, to be very acceptable and beneficial. Some suggested that further appointments, throughout the treatment journey, as well as supportive literature, might also have been helpful.

Introduction

In the United Kingdom, the reported number of patients who suffer from a dentofacial deformity, severe enough to require surgical correction, is estimated to be 250,000. Caucasian women make up the majority of those seeking orthognathic treatment[1], with the ratio of females to males reported at 2:1[2]. The types and trends of dentofacial dysmorphology vary by population, with class III being more prevalent in Asians and class II more prevalent in Scandinavians.

The face is one of the most visible parts of the human body and perceived disfigurement can affect social interaction. This leads to anxiety, self-consciousness and social discomfort. It has been shown that aesthetics is the most common motive for seeking surgery[3], but improvement in facial appearance may or may not deal with any associated psychological problems. A patient's satisfaction with orthognathic surgery that changes their facial appearance depends largely on their psychological background, the availability of a support system, and their ability to adapt to their new appearance[4]. It is essential, therefore, that the psychosocial indications and implications are adequately considered before embarking on treatment.

Evidence suggests that up to 50% of patients referred to an orthognathic assessment clinic experience psychological distress[3]. This, in part, relates to the interaction of society with facial dysmorphology. There is no linear relationship between severity of deformity and social acceptability and minor deformities may be ridiculed in comparison to more significant disfigurements, which are treated with compassion[5,6]. Individuals with a milder deformity are more prone to emotional distress due to unpredictable reactions from the public[7]. The quality of life of dentofacial deformity patients tends to be poorer than that of non-affected individuals

and facial appearance plays an important role in the perception of their abilities[8]. It has been shown that attractive people are more likely to be given job opportunities and are expected to be more intelligent. As a result, they behave more confidently in society[9]. Orthognathic surgery has the potential to improve a patient's self-confidence, body and facial image, as well as social adjustment[10].

Motivation for orthognathic treatment can be described as 'external', where the individual believes that their appearance is negatively impacting on their employment or social status, or 'internal', where they believe that their appearance is negatively impacting on their quality of life[11]. Patients who are externally motivated may often learn to cope better with their environment through seeking help, rather than resorting to surgery. Patients who do seek surgery, but do not have an accurate perception of their dentofacial deformity, may have unrealistic expectations and are less likely to be satisfied with their treatment outcome[12,13]. Orthognathic procedures challenge a patient's ability to adapt to sudden facial changes[14] and patients have reported experiencing reduced self-esteem and post-surgical depression as part of the process of adjusting to their altered facial appearance[15,16].

The clinical psychologist is an integral member of our inter-disciplinary team and routinely attends the orthognathic clinic. Patients are interviewed prior to them being seen by the rest of the team, to assess their perception of their clinical problem, their expectations in relation to possible treatment, their motivation, and their psychological status. This usually takes between 30-40 minutes to explore patients' concerns, identify the motivation for seeking treatment, evaluate the level of anxiety associated with their concerns and to assess the realism of their expectations following orthognathic surgery. The clinical psychologist has access to the patients' medical history including previous psychological and/ or psychiatric

treatments. The clinical psychologist also highlights the potential psychological impact of orthoganthic surgery and identifies the group of patients that would benefit from a second psychology session before proceeding to clinical assessment. The psychologist reports her findings to the rest of the team and advises whether or not the patient should progress to clinical examination. Patients identified as suffering from body dysmorphic syndrome, or as having unrealistic expectations regarding treatment outcome, are considered unsuitable for orthognathic surgery. Where there is a history of psychological or psychiatric disorders, this is further investigated and monitored, in liaison with the General Medical Practitioner or other medical specialists as required, before a recommendation is made regarding suitability for surgery.

The purpose of this survey was to evaluate the level of patient satisfaction with the initial psychological assessment, provided as part of our inter-disciplinary orthognathic clinic, and discuss the importance of delivering this service for patients referred for the diagnosis and management of their dentofacial dysmorphology.

Method

Ethics

This study was carried out at Glasgow University Dental Hospital & School, UK. Ethical approval for this retrospective questionnaire-based study was granted by the Regional Psychology Unit. All patient information was held on NHS secure, password-protected computers. In accordance with local Information Governance protocols data analysis was anonymized to maintain privacy and avoid bais.

Recruitment

Patients were identified using local securely held surgical planning records and all those meeting the inclusion criteria within the last three years were invited to take part in the study. Contact information was accessed via the NHS Portal electronic patient record system.

To be included in this study, each patient was required to have:

- Seen one of the orthognathic clinical psychologists within the three years before commencement of the study.
- Completed combined orthognathic treatment, with one Surgeon, operating at Queen Elizabeth University Hospital of Greater Glasgow & Clyde Health Board, having performed all surgical procedures.
- All the patients received the psychological input as part of the multidisciplinary treatment provided by a specialist in Clinical Psychology at the same National Health Service hospital where the diagnosis and treatment planning took place.

Data collection

A qualitative, patient-centred questionnaire was designed, with input from the surgeon, orthodontist and clinical psychologist and consisted of fourteen questions. Eleven questions required the patients to express their level of agreement or disagreement with a statement by marking a point on a visual analogue scale. Three questions required a simple “yes” or “no” answer. At the end of the questionnaire, the patients were invited to write comments about their experience using free text (Appendix A). Questionnaires were posted to the participants with a covering letter explaining the purpose of the study, along with details of a person to contact with any

queries. A pre-stamped, self-addressed envelope was included to facilitate the return of the questionnaires.

Analysis

The completed questionnaires were analysed, based on the summative scaling method, with the summative Likert scale applied for each question. The level of agreement for the responses was divided into five equal bands (e.g. “very satisfied”, “slightly satisfied”, “neutral”, “slightly unsatisfied”, “very unsatisfied”) and the percentage of patients that scored each category was calculated.

Results

Sixty patients were invited to take part in this study and 49 (82%) returned questionnaires. Not every patient answered every question. Figure1 (a – n) illustrates the response distributions for each question along with the mean Likert scores.

When asked if there was a need for an appointment with the clinical psychologist before being seen on the orthognathic clinic (Q1), 89% of the subjects answered “Yes” and 88% were either “very satisfied” or “slightly satisfied” that the reason for the appointment had been adequately explained (Q2). Patients that responded negatively to Q2 commented that they would have preferred to speak to someone who had previously been through orthognathic surgery, rather than to a psychologist.

Satisfaction levels with the length of time in the waiting room (Q3) varied from "very satisfied" (59%) to "very unsatisfied" (6%), with a mean Likert score of 7.7 indicating "slightly satisfied" overall. In Q4, a mean score of 8.5 indicated that patients were generally "very satisfied" with the suitability of the meeting room.

Most patients (71%) were "very satisfied" with the length of time they were allotted with the psychologist (Q5) and 81% felt "very comfortable" or "slightly comfortable" being interviewed and sharing information with her at the initial assessment stage (Q6).

When asked about the potential usefulness of an information leaflet, aimed at helping patients cope with the changes to their facial appearance (Q7), 67% thought it would be "very helpful" or "slightly helpful".

There was a high level of satisfaction with the information provided by the psychologist (Q8), with 82% indicating either "very satisfied" or "slightly satisfied". In helping to cope with the stress of orthognathic treatment (Q9), 60% of the patients indicated that the appointment was "very helpful" or "slightly helpful", but 20% indicated that it was either "slightly unhelpful" or "very unhelpful". In Q10, 69% indicated that they felt the appointment with the psychologist was "very useful" or "slightly useful", with only 12% indicating that they thought it was "slightly useless" or "very useless".

The majority of patients (76%) indicated that they had only met with the psychologist at the initial assessment stage (Q11), but 57% indicated that they felt additional meetings at other times during treatment would have been "very helpful" or "slightly helpful" (Q12). Overall, 77% of patients said that they were "very satisfied" or "slightly

satisfied" with the psychology service provided (Q13) and 77% agreed that it was a necessary part of their orthognathic treatment (Q14).

Discussion

An inter-disciplinary team in any speciality should be specific and sensitive enough to understand its patients' complaints and be able to deliver the best possible treatment[17]. Orthodontists and maxillofacial surgeons might well be able to identify patients who suffer from severe psychological or psychiatric disorders but, in a busy clinic, may not be able to identify those who present with more subtle symptoms or where psychological support is needed to maximise the benefit of treatment. Patients who seek orthognathic surgery frequently present with psychological symptoms, which require analysis and management[18]. An effective psychology assessment should help identify those patients for whom a concern regarding their dentofacial deformity is only part of a larger body dysmorphia. The increased prevalence of body dysmorphic disorder in the populations of patients presenting to orthognathic planning clinics has been previously established[19,20] and, in these cases, postponement or refusal to treat might prevent a significant expenditure of resources for a surgical change that will not address the cause of the patient's displeasure. The same importance should therefore be attached to the exploration of the psychological profile of the patient as to the clinical assessment[21].

The focus of most published studies in relation to psychology and orthognathic surgery has been either the psychological impact of the presenting dentofacial deformity[22,23], or the quality-of-life enhancement brought about by corrective surgery[10,24]. No published study to date has assessed the level of patient acceptability of a dedicated psychology service linked to an orthognathic clinic.

The results of the present study confirm that a group of patients, who had completed orthognathic surgery, reported that they found their pre-treatment psychology assessment to be generally very acceptable and beneficial. They considered the information given to them during the interview to be appropriate, but felt that some written material on how to cope with the resulting change in facial appearance would also have been helpful. There was also a suggestion that additional appointments closer to the time of surgery might be of benefit, due to the high level of anxiety during this period. Following surgery, quality-of-life and depression have been shown to improve, but anxiety can persist and this may be an indication for further meetings with the psychologist in the post-operative period[25].

The retrospective nature of this study was a limitation, as some of the patients were asked to recall the content of a psychology appointment that had taken place approximately a year ago. The study was limited to those who successfully finished the treatment, which could have caused bias. Evaluation of the cases which did not proceed to treatment requires further investigation. There was a risk of non-response and volunteer bias, as not everyone who received a questionnaire completed it fully. A future prospective study could aim to also include those patients who were assessed as being unsuitable for orthognathic surgery.

Conclusions

The provision of a routine, pre-treatment psychological assessment was found to be beneficial in 89% of this group of patients, who had completed orthognathic treatment. On the basis of the results of this study and previously published work, we would recommend the routine inclusion of a clinical psychologist in the orthognathic

team to interview all referred patients and provide further support, as needed, throughout the treatment journey.

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Figures 1a to 1n. Column charts illustrating the number and distribution of responses, along with the mean Likert scores, where applicable, related to questions 1 to 14.