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Psychological Assessment of Patients Requesting Orthognathic Surgery and the Relevance of Body Dysmorphic Disorder

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Abstract: *The psychological assessment of patients requesting orthognathic treatment is a vital and integral part of the over - all assessment procedure. It allows identification of potential problems at an early stage before irreversible decisions have been made.*

This paper aims to highlight some of the aspects of psychological assessment which are particularly important. It also dis - cusses current concepts in the diagnosis and treatment of those patients suffering from body dysmorphic disorder (BDD). This is the term applied to those individuals with a normal appearance who present requesting treatment because they believe that they have a 'defect'.

Index words: Psychology, Orthognathic Surgery, Body Dysmorphic Disorder

Refereed Paper

Introduction

The number of patients requesting orthognathic treatment for the correction of dentofacial deformities has undoubtedly increased in recent years. The psychological assessment of these individuals is a vital part of the overall assessment and allows identification of any potential problems at an early stage. In an ideal world, every patient would be assessed by a psychologist at the initial appointment to establish their motives for requesting treatment and to determine whether these goals are realistic. With the constraints placed on such services, this is rarely possible and the clinician must be responsible for the initial assessment, referring only those patients of particular concern.

This paper aims to highlight some of the features which should alert the orthodontist to the possibility that there may be a problem.

Psychological assessment

Clinicians should adopt a standard method of assessing patients to avoid missing important areas. Frequently, they will need to meet with the patient two or three times to ensure all relevant information has been obtained. The initial interview should be performed in a private setting with a minimum number of people present. It is important that a thorough history has been taken prior to making an appointment on the Joint Orthodontic Maxillofacial Clinic—the patient is less likely to disclose details on a clinic where there are a large number of observers present.

Although each clinician will establish their own assessment technique, a number of significant questions must be included (Edgerton and Knorr, 1971; Peterson and Topazian, 1976; Lewis *et al.*, 1983)

What is the main complaint?

This first question establishes what the patient thinks is wrong. The accuracy of the patient's description is not important (for example, they may believe their chin sticks out when actually the maxilla is retrusive), but their identification of a real problem is. Patients who are specific about their problem are likely to make better surgical candidates than those who give very vague descriptions.

The clinician must decide at this initial stage whether there is a deformity which should be treated. Patients can be divided into three groups: the first includes those individuals where there is no deformity and the feature is aesthetically acceptable—this will be discussed later in the paper; the second group comprises those patients who present with a minimal or 'subjective' deformity, but at a level which the majority of the population would accept; and the third group are those with a noticeable deformity which warrants treatment. This 'classification' can be difficult as the clinician is required to make a value judgement on which features are acceptable and which are not.

When did the patient first become aware of the problem?

It is important to establish when and in what circumstances the patient first became aware of the problem. Sometimes it was an apparently innocuous remark ('You do have your father's chin') or a nickname at school which precipitated the problem in the first place. Other patients will become distressed by having a feature similar to a parent if they have a poor relationship with that parent; therefore, family relationships may also need to be investigated at this stage.

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Why has the patient sought help now?

It is important to know why the patient has decided to seek treatment now and whether anything has precipitated this decision, for example, an acute crisis such as the breakdown of a relationship. Those patients who have been concerned about a particular feature for only a short time may be undergoing an acute problem in their life which manifests itself as dissatisfaction with appearance. They are also more likely to express dissatisfaction at the end of treatment. The clinician must be firm with those who are impatient and demanding and are desperate to 'get on with things'—a waiting period will not only test the real motives for requesting treatment, but may also allow an acute crisis to pass.

What does the patient expect?

Patients should be asked what they hope to gain from treatment and the clinician must assess whether this is realistic. Some patients believe that treatment will solve all their problems and questions such as 'How do you think having a smaller chin will affect your life in general?' may reveal quite unrealistic expectations.

Patients who want primary gain from surgery are likely to show greater satisfaction following treatment than those who expect secondary gain (a better job or improved relationships). For example, the patient who states that 'I want my chin to look smaller and my teeth to bite the right way' is likely to be more satisfied than the individual who believes 'If my chin is smaller, I will get a better job'.

How much does the complaint interfere with everyday life?

A patient's ability to function in a normal way in everyday life is a good indicator for surgical satisfaction. Ascertaining what type of activities the patient is engaged in may give some indication of the level of social integration. Some patients avoid going to places where they will be seen or forced to engage in conversation as they believe that people are staring and laughing at them. This may suggest underlying psychopathology. Questions regarding significant relationships with the opposite sex will also provide useful information as this group of individuals frequently have problems in forming and maintaining this type of relationship.

Is the patient being pressured to have surgery by someone else?

The source of motivation to seek treatment may be internal (from the patient themselves) or external (from a desire to please someone else). Those patients who show external motivation may be attempting to please a parent or a spouse whom they feel they have let down in some way. Such patients are not a good surgical 'risk' as their problem is unlikely to be solved without changes in their external environment.

Does the patient have support from their friends and family?

The importance of support from friends and family cannot be overemphasized, especially in the post-operative period. Those patients who lack a support network should be identified early as they may require additional help during treatment.

Have they seen any other clinicians with regard to the presenting problem?

This is an important issue as some patients pursue opinions from a number of different clinicians until they find someone who is willing to treat them. Careful questioning is required as visits to other doctors may be concealed if the patient believes it will adversely affect their chance of obtaining treatment.

What is the patient's mental state?

Any history of previous psychiatric problems or substance abuse should be enquired about in detail from both the patient and the clinicians involved at the time. Patients are frequently reluctant to discuss these issues and careful, sensitive questioning is vital if the relevant information is to be elicited. In addition, the patient's general behaviour may alert the clinician, particularly if they are restless and avoid eye contact.

Diagnosis of existing common psychiatric disorders such as anxiety and depression is important. A depressed state may be indicated by disturbance in mood states and sleeping patterns (for example, insomnia; hypersomnia), loss of libido, changes in appetite, loss of interest in life, and feelings of hopelessness and suicidal ideation. Symptoms of anxiety may include restlessness; shortness of breath, palpitations, dizziness, nausea and abdominal distress, irritability, and difficulty concentrating and feeling generally 'on edge'. Obviously, there is also some overlap between the symptoms of the two conditions.

Questionnaires, such as the Hospital Anxiety and Depression Scale (HAD Scale) (Zigmond and Snaith, 1983), are useful screening tools for assessing whether there is co-existing anxiety and depression. This scale was developed as an out-patient department screening tool and can be completed readily by the patient as they are waiting for consultation.

Following the initial assessment, the clinician should divide his/ her findings into six sections:

1. The defect.
2. The request.
3. The decision to seek help.
4. The expectations.
5. The previous history.
6. The psychodynamics (for example, family relationships, nicknames etc.).

Table 1 shows how this information may illustrate a patient's appropriateness for treatment. If the clinician is in doubt as to the patient's suitability for treatment, any intervention should be delayed for several months. If,

TABLE 1 *The initial assessment of patients requesting orthognathic treatment*

	Positive finding	Negative finding
The defect		
Is there an actual deformity?	Yes	No
Is the defect minor?	No	Yes
The request		
Is the request obscure?	No	Yes
Is the requested change surgically feasible?	Yes	No
Is there a history of dissatisfaction with previous surgery?	No	Yes
Has the patient been 'surgeon shopping'?	No	Yes
The decison to seek help		
Has there been long term planning?	Yes	No
Is the patient in acute crisis?	No	Yes
Is there pressure from others?	No	Yes
Is there support from friends/ family?	Yes	No
The expectations		
Are the expressed hopes reasonable?	Yes	No
The psychodynamics		
Is there evidence of the complaint reflecting deeper conflicts?		
E.g. poor relationship with parent who has the same feature	No	Yes
Previous history		
Is there a history of past psychiatric disturbances?	No	Yes
Is there a history of severe maladjustment in life situations?	No	Yes

following this, there are still doubts, the patient should be referred for psychiatric/psychological assessment.

Body dysmorphic disorder (BDD)

Introduction

At some point, most clinicians will encounter the patient who presents requesting treatment for a non-existent or very minor facial deformity—this may signify the existence of the condition dysmorphophobia, which was first described by Morselli in 1886.

Changes in the classification of psychiatric illnesses have resulted in dysmorphophobia being redefined into delusional (delusional—exhibiting fixed, false belief not ordinarily accepted by other members of an individual's culture) and non-delusional variants.

The delusional variant is a psychotic disorder which is rarely seen in the type of clinical situation we are familiar with. The non-delusional variant is now classified as body dysmorphic disorder in both the American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders (1994) and the World Health Organization Clinical Descriptions and Diagnostic Guidelines (1992).

Three criteria must be fulfilled for a diagnosis of BDD to be made (American Psychiatric Association, DSM-IV, 1994):

1. There is a preoccupation with a defect in the appearance. The defect is either imagined or, if a defect is present, the individual's concern is excessive.
2. The preoccupation causes significant distress in social, occupational, and other important areas of functioning.
3. The preoccupation is not better accounted for by another mental disorder, for example, anorexia nervosa.

The following case report illustrates some of the 'classic' features of BDD.

Case report

A 33-year-old Irish male presented to the casualty department requesting orthognathic treatment to make his upper teeth and upper jaw more prominent. A thorough history revealed that, several years previously when he lived in Ireland, he had undergone a procedure in an attempt to meet these same objectives. He was apparently happy with the initial results, but claimed there had later been relapse. Following this, he moved to France and consulted surgeons there requesting further treatment. He had been refused treatment by several doctors during this time

The patient lived alone, and admitted to having few friends and family. He was fit and healthy, but had spent some time in a psychiatric hospital in the past. On examination, no facial deformities were noted and there was no evidence of maxillary hypoplasia. Previous radiographic records indicated that there was no evidence of relapse following the initial surgery.

A diagnosis of BDD was made and the patient was refused further surgery. He commenced pharmacological treatment and subsequently made good progress.

Presenting features of BDD

Specific features

The main feature of BDD is an obsession with an imagined or greatly exaggerated defect in appearance. Concerns frequently affect some part of the face or head. Veale *et al.* (1996) found that 86 per cent of their BDD sample mentioned some aspect of their face. For this reason, dentists, orthodontists, maxillofacial surgeons, and plastic surgeons are frequently the first clinicians to become involved with the patient. Concerns are usually very specific and many patients see surgery as a solution to all their problems.

Onset and demographics

The onset of BDD is usually during adolescence although patients may wait a number of years before requesting treatment (Phillips, 1991; Phillips *et al*., 1995). The majority of individuals suffering from BDD are unmarried and many are also unemployed (Phillips *et al*., 1993).

Reliable data collection is difficult as the patients present to a number of different specialities and there is conflicting evidence as to the sex bias of the condition. Phillips (1991) quoted a ratio of approximately 1:1 female:male, but, in contrast, Thomas (1995) found that males outnumbered females in their BDD group. Veale *et al.* (1996) reported a 3:1 female:male ratio in their sample, but this may have been heavily influenced by the fact that some of their patients self-referred following articles in newspapers and a women's magazine.

BDD preoccupations

BDD preoccupations are time consuming and distressing to the patient. Patients may spend hours studying the 'defect' in a mirror or they may go to extreme efforts to cover or hide it. A study by Perugi *et al*. (1997) found that 79 per cent of patients reported excessive mirror checking and 53 per cent reported attempts to camouflage their 'deformity'. As a result of this, almost 90 per cent avoided usual social activities, 52 per cent reported impairment of their academic or job performance, 45 per cent experienced suicidal ideation, and 36 per cent exhibited aggressive behaviour. Most BDD patients will avoid social contact as they believe that they look ridiculous, and that people are staring at them and laughing at their appearance.

Associated psychiatric disorders

A number of patients present with associated psychiatric disorders. The disorder most often found in association with BDD is depression (Phillips *et al*., 1994) and it is difficult to establish whether the two disorders actually co-exist or whether the depression is secondary to BDD. It is important that if depression does exist, it is treated as this may result in considerable benefits for the patient. Phillips *et al.* (1995) found a current prevalence of 59 per cent and a lifetime prevalence of 83 per cent for major depression. Veale *et al.* (1996) reported that 24 per cent of their patients had made suicide attempts in the past and 36 per cent had past depressive episodes. In addition, they noted that 72 per cent had one or more personality disorders (for example, obsessive compulsive disorder).

Frequent requests for treatment

Many patients suffering from BDD will go 'doctor shopping' (from one clinician to another), until they find someone who is willing to treat them. For this reason, it is important that patients are asked if they have sought previous opinions. Requesting correspondence from doctors they have seen previously may save considerable problems later on.

How to recognize the BDD patient

Initial assessment

It is important that the clinician is sensitive to this condition. Frequently, they will be confronted with a distressed and fragile patient, and well meaning, but inappropriate remarks may make the situation much worse.

The clinician may be alerted to the problem as early as the first referral letter, especially if the referring practitioner suggests a level of concern out of proportion to the defect or indicates that they have already referred the individual to other clinicians. There is some evidence that a higher proportion of those individual who self-refer suffer from BDD than those referred through the normal channels (Goodacre and Mayou, 1995).

At the initial appointment patients may be secretive and reluctant to discuss the problem or they may be intrusive and present with pictures and photographs which aim to 'prove' that there is a problem. This visit may be followed by letters or phone calls explaining further details of the problem—all of which should be documented carefully in the patient's notes.

Psychometric testing

A number of questionnaires and clinical interviews are available for the assessment of those patients suspected of suffering from BDD. The main problem with such psychometric tests is that they are often difficult to use and time consuming for the patient to complete. In addition, the analysis of such tests is difficult for personnel with no formal training in this field. This further reinforces the need for liaison between orthodontists/surgeons and psychologists or psychiatrists. The Body Dysmorphic Disorder Examination (BDDE) exists as a semi-structured clinical interview or a self-completion questionnaire, and is useful in those cases where a tentative diagnosis of BDD has been made (Rosen and Reiter, 1996; Veale *et al.*, 1996). It measures dissatisfaction with appearance, avoidance of social situations, body checking behaviour, body camouflage, and reassurance seeking.

Treatment of BDD

The method of treatment chosen will depend to some extent on what facilities are available in the area—the clinician may choose to manage the patient himself/herself, or may refer them to a liaison psychiatrist or clinical psychologist. There are three main methods of treatment currently available for BDD: pharmacological treatment, behavioural therapy, and surgery.

Pharmacological treatment

Recent years have seen the increased use of selective serotonin re-uptake inhibitors (SSRIs) in the treatment of BDD. Other pharmacological treatments have been tried with much lower success rates (Marks and Mishan, 1988;

Hollander *et al*., 1989). Hollander *et al.* (1989) reported that five patients, who failed to respond to a variety of psychotropic agents, responded to SSRIs. In their study of a much larger group of patients, Phillips *et al*. (1993, 1994) found that the only medication which patients consistently responded to were the serotonin re-uptake inhibitors fluoxetine and clomipramine. Fifty-eight per cent of their patients had a complete or partial reduction in BDD symptoms.

Therefore, although SSRIs are expensive, their high success rates combined with their low side-effect profile (less sedation, fewer anticholinergic effects, less weight gain, and greater safety in overdose) makes them a popular pharmacological treatment. Further research in the form of randomized clinical trials is required to provide more evidence in this area.

Phillips *et al*. (1995) stressed that effective treatment of BDD with SSRIs requires a relatively long duration of treatment and often needs doses which are higher than those used for depression. They found an average time to respond was at least 7–8 weeks, but was sometimes as long as 12 weeks.

Behavioural therapy

Although prior case reports of behaviour therapy in the management of BDD were encouraging, the study by Rosen *et al.* (1995) was the first controlled evaluation. In this study, 54 patients were randomly assigned to behaviour therapy or no treatment and BDD symptoms were found to be significantly reduced in the therapy group. The disorder was eliminated in 82 per cent of individuals at the end of treatment, and in 77 per cent at recall four and a half months later.

Rosen *et al. (*1995) used a therapy programme modelled after the cognitive behavioural body image therapy which involves a variety of assignments. These include subjects constructing a hierarchy of distressing aspects of their appearance, and using exposure therapy and thought stopping to prevent distress at the sight of these features. In addition, response prevention is used to decrease checking behaviour and individuals are taught relapse prevention in order to prepare themselves for 'high-risk' situations.

Surgery

The role of surgery in BDD remains controversial (Reich, 1975; Harris, 1989). It is generally accepted that surgery rarely improves the situation and may make matters worse with the concern becoming more intense or the individual finding a new 'defect' (Munro and Stewart, 1991; Phillips *et al.*, 1995). Successful surgery on individuals with minimal deformities has been reported. However, in these cases it is important to arrange a joint surgical/psychiatric assessment before proceeding (Thomas, 1984; Munro and Stewart, 1991). It is essential that the clinician is not pushed into treatment by a particularly persistent patient, there is unlikely to be a successful outcome unless a deformity is actually corrected.

Conclusions

The psychological assessment of patients requesting orthognathic surgery is an important part of the overall assessment. A structured method of questioning will ensure that vital areas are not omitted, and that the clinician develops an understanding of the patient and what they expect the treatment to achieve. A sensitive and thorough assessment technique will ensure that conditions such as BDD are diagnosed before progressing with treatment. A number of methods of treatment are available for BDD with the general consensus that surgery is unlikely to be beneficial.

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