



Review Article

Body dysmorphic disorder, a mildly traversed parameter in orthodontics – An update

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ARTICLE INFO

Article history:

Received 02-07-2020

Accepted 15-07-2020

Available online 24-10-2020

Keywords:

Body dysmorphic disorder

Esthetics

Orthodontist

ABSTRACT

While the concept of esthetics and body image are trending lately, there is increased demand for the correction of facial or dental defects. In such times, an orthodontist needs to carefully assess if the defect is for real or is been simply a perceived physical defect by an individual, wherein it then becomes a psychological condition to be dealt with. Patients with Body Dysmorphic Disorder (BDD) focus on physical defects that are unnoticed by others. Hence, it becomes important for an orthodontist to be aware of this condition before starting with the treatment, as the patient would be dis-satisfied in spite of the treatment. This paper focuses on the etiology, identification, risk factors involved, implications for orthodontics and management of Body dysmorphic disorder.

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1. Introduction

The modern era is highly inclined towards esthetics with the reason being facial appearance playing vital role in human apprehension. With the development of esthetic appliances for the correction of various dental defects, which in turn would bring a large amount of changes on a patient's face, the demand for orthodontic correction has raised exponentially over the years. Sometimes, patients report with least or no presence of an actual defect, which then needs to be suspected by the orthodontist, as a patient suffering from Body dysmorphic disorder (BDD). To be precise, BDD is a psychiatric disorder in which an individual is pre-occupied with one or more perceived defects in physical appearance which are unnoticed or appear minor to others.¹ BDD has been reported in several countries around the world such as United States, Australia, England, Germany, Japan etc. There has been a condition called Koro,² which seems to be similar to BDD. An individual suffering from Koro, seemed to be pre-occupied with the thought that the penis (nipples, labia in women) is shrinking and would eventually disappear into the stomach,

gradually resulting in death. But this differed from BDD, with its short duration of occurrence in the individual. BDD is also the area of immense concern as there has been mention that the affected individual due to esthetic concern, would stop socializing and working and would even get thoughts of suicidal tendencies.^{3,4} BDD patients are claimed to be associated with other mental disorders as well.⁵ Unless asked about, BDD is easily missed. Hence, there are high chances of under diagnosis with this particular condition.

2. Objective

To review the literature, relating the role of orthodontists in identifying and managing patients with body dysmorphic disorder.

3. Materials and Methods

Papers which were based on body dysmorphic disorder were chosen, with the keywords of orthodontists, body dysmorphic disorder, facial defects and orthodontic practice. Manual search of papers of case reports and series, literature review and systematic reviews were chosen for

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the review writing. A total of 32 articles were selected to brief the review topic.

4. Literature review/ Discussion

4.1. History

BDD was formerly referred to as dysmorphic syndrome and hypochondriacal paranoia.^{6,7}

It was first documented as dysmorphobia in the year 1886.⁸ It was described as a mental malfunction leading to beauty based hypochondriasis by Emil Kraepelin in the year 1909.⁹ The term BDD, comes from a Greek word 'dysmorphia' (dis = abnormal and morpho = shape).¹⁰

The exact prevalence is unknown as the condition gets unnoticed, if not for the patient approaching the orthodontist for treatment. However, based on the estimations obtained by the National population based surveys, the following is determined. (Table 1).^{11–14}

Table 1:

National Population Based Surveys	
Prevalence percentage	Country
2.4 %	United States
1.7 – 1.8 %	Germany
2.3 %	Australia
5.8 %	Pakistan

4.2. Sex predilection

The condition is seen in both the sexes, although Philips quotes a ratio of 1.3: 1 female to male ratio, but the ratio is said to be 1:1 in the paper that was published later in the year 1994.^{15,16}

4.3. Onset

The age of onset is usually during adolescence, but it can also begin during childhood.¹⁷

4.4. Risk factors:¹⁷

1. Genetic predisposition¹⁸
2. Temperament or extremely emotional state¹⁹
3. Unpleasant experiences during childhood²⁰
4. Psychological standpoint of the individual of feelings of inferiority about oneself¹⁵
5. History of any sort of physical shame experienced as an adolescent

4.5. Diagnostic criteria

A study conducted by Jaiswal et al,²¹ concluded that those who displayed features of BDD were 9 times more likely to consider tooth whitening and 6 times more likely to consider orthodontic treatment in the near future, compared to

those without the symptoms of BDD.²² Anxiety disorders, substance abuse, sleep disorders and suicidal tendencies are commonly seen with BDD.

Leone et al,²³ suggested the following diagnostic criteria to determine the condition. (Table 2)

Table 2:

Diagnostic criteria	
1.	Engrossed with an imagined defect in appearance - immense concern by the patient towards the inappreciable physical anomaly.
2.	The preoccupied thought causes clinically significant anguish or deterioration in social, occupational life ; and
3.	The engrossed thought of imagined defect is not better accounted for by another mental disorder.

4.6. Role of an orthodontist

It is very much important for the orthodontists to do the treatment after obtaining consent from the psychiatrist. Polo²⁴ suggested a set of questions which can be utilized by the orthodontists, to identify patients with BDD.¹⁷

1. How does the patient rate the severity of their defect concerning their face or dentition?
2. How would the patient rate their worry which is produced by perceived ugly appearance of themselves?
3. Does the defect that they are referring to, cause significant agony in their personal or professional lives?
4. What is the reason for seeking an orthodontic treatment?
5. Has there any former evaluations performed on the patient regarding the orthodontic defect?
6. Why is repeated orthodontic consultations sought?
7. Are the expectations from the patient for this particular orthodontic treatment procedure reasonable?
8. Any former requests for other cosmetic procedures been made?
9. Are these other cosmetic procedures been performed? Were they frequent? How many? When?
10. Any history of dissatisfaction with the previously performed cosmetic procedures? Are these multiple?
11. Does the patient report any history of psychiatric or psychological disturbances at home or at workplace or any previous referrals for psychiatric evaluations been made?

There could be instances of orthodontists not always obtaining a consent from the psychiatrist, with the fear of patient reacting badly to it. However, it's the responsibility of orthodontists to be following the protocol just as per other protocols of its own.

4.7. Management

1. Medications: Due to low levels of serotonin in the brain of these patients, selective serotonin reuptake inhibitors (SSRIs) such as Fluoxetine, fluvoxamine, citalopram are preferred.^{25–31}
2. Cognitive Behavioral therapy (CBT):¹⁷ One of the techniques here is to check what is the patient's ability to expose the defect in a social setting.³² Another technique is the response prevention, which is done to prevent the patient from using behavioral patterns such as micro-checking etc.³¹

A combination of CBT and anti-depressants are proven to be more effective than just using one of the methods.³²

5. Conclusion

1. An orthodontist has to take a thorough history with required screening questions to analyze the patient with BDD.
2. The clinician has to think if the patient's expectations of treatment outcome are realistic and only then proceed with the required.

However, further research is needed to determine if there are other management methods to treat such patients.

6. Abbreviations

BDD – Body dysmorphic disorder, CBT – Cognitive behavioral therapy, SSRIs - Selective serotonin reuptake inhibitors.

7. Acknowledgement

None.

8. Source of Funding

None.

9. Conflict of Interest

None.

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Cite this article: Shetty S, Kumar A. Body dysmorphic disorder, a mildly traversed parameter in orthodontics – An update. *Int Dent J Students Res* 2020;8(3):96-99.