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Body Dysmorphic Disorder in Orthodontic Patients: A Review of Prevalence, Diagnosis, and Management Approaches

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ABSTRACT

Background: Body Dysmorphic Disorder (BDD) is a psychiatric condition marked by excessive concern about perceived flaws in physical appearance, often resulting in emotional distress and functional impairment. Given that orthodontic treatment primarily addresses facial esthetics, orthodontic patients may have a higher prevalence of BDD than the general population.

Objective: To review the literature on BDD in orthodontic patients, focusing on prevalence, diagnostic challenges, clinical implications, and management strategies.

Methods: A narrative review of PubMed, Scopus, and Web of Science databases was performed using the keywords "Body Dysmorphic Disorder," "Orthodontics," "Malocclusion perception," and "Psychiatric rehabilitation." Articles from 2000 to 2025 were analyzed.

Results: BDD prevalence is 1.7%–2.4% in the general population but 7%–12% in orthodontic patients. Risk factors include perfectionism, history of bullying, and comorbid psychiatric disorders. Diagnostic challenges arise because appearance-related dissatisfaction is common in orthodontics. Undiagnosed BDD can result in unrealistic expectations, dissatisfaction, treatment dropout, and litigation risk. Early screening and interdisciplinary management involving mental health professionals are recommended.

Conclusion: BDD screening should be part of orthodontic evaluation, and interdisciplinary management is crucial for preventing treatment failure and psychological harm.

Keywords: *Body Dysmorphic Disorder, Orthodontics, Aesthetic Dentistry, Psychiatric Rehabilitation, Patient Management*

1. INTRODUCTION

Facial esthetics and self-image are central motivators for seeking orthodontic treatment, particularly in contemporary society where appearance strongly influences social acceptance, self-esteem, and even professional opportunities.[1] Mild dissatisfaction with dental appearance is a common and often healthy driver of orthodontic consultations; however, when concern becomes excessive, intrusive, and disproportionate to the actual physical presentation, it may indicate the presence of Body Dysmorphic Disorder (BDD). BDD is classified under *Obsessive–Compulsive and Related Disorders* in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), and is characterized by a persistent preoccupation with perceived defects or flaws in physical appearance that are either unnoticeable or appear minor to others.[2]

Epidemiological studies report that the general prevalence of BDD in the population ranges from 1.7% to 2.4%.[2] Among individuals seeking cosmetic interventions—including dermatological, surgical, and orthodontic treatments—the reported prevalence is significantly higher, ranging from 6% to 15%..[2,3] This elevation suggests that patients presenting to

orthodontists may constitute a higher-risk group for undiagnosed BDD. Importantly, the orthodontic setting presents unique challenges: patients may present with minor malocclusions or esthetic concerns but exhibit disproportionate distress, unrealistic expectations, and persistent dissatisfaction, even after objectively successful treatment.[3]

Orthodontists, therefore, stand at the intersection of esthetic health care and psychological well-being. Unrecognized BDD can contribute to poor treatment outcomes, increased treatment dropout rates, repeated requests for retreatment or unnecessary procedures, and heightened risk of litigation due to unmet expectations. More critically, BDD is associated with significant psychiatric morbidity, including social anxiety, functional impairment, depression, and suicidal ideation. This underscores the necessity for dental professionals to not only be aware of the condition but also to incorporate screening, interdisciplinary referral, and ethical decision-making into clinical practice .[2,3]

2. PREVALENCE AND RISK FACTORS

The prevalence of Body Dysmorphic Disorder (BDD) varies depending on the population studied. In the general population, BDD affects approximately **1.7%–2.4%** of individuals, suggesting that while relatively uncommon, it is by no means rare.[1] However, when the focus shifts to populations seeking cosmetic or esthetic interventions, the rates rise substantially. Studies indicate that between **6% and 15%** of patients pursuing aesthetic treatment—including cosmetic surgery, dermatological enhancements, and orthodontic correction—meet the diagnostic criteria for BDD.[2,3] This heightened prevalence highlights the strong link between body image dissatisfaction and the pursuit of elective procedures.

Within orthodontics specifically, research suggests a prevalence of **7%–12%**, with particularly elevated rates among **adolescents and patients with coexisting social anxiety disorders**.[4–6] Adolescence represents a critical developmental period in which identity, peer relationships, and body image concerns are heightened. Orthodontic treatment, being highly visible and often linked to esthetic improvement, may therefore attract individuals whose primary concern is rooted not in functional malocclusion but in distorted self-perception.

A number of **risk factors** have been identified that may predispose orthodontic patients to BDD. Personality traits such as **perfectionism** and **low self-esteem** are strongly correlated with the disorder, as individuals with these characteristics may fixate on minor or imagined flaws in appearance.[7] A **history of teasing or bullying**, particularly during childhood and adolescence, has also been linked to later development of BDD, as negative social experiences reinforce self-consciousness and dissatisfaction with facial or dental features.[8] Furthermore, BDD frequently coexists with **psychiatric comorbidities** including **major depressive disorder, generalized anxiety disorder, and social phobia**, all of which can amplify distress and impair adaptive coping strategies.[9]

Taken together, these findings suggest that orthodontic patients may represent a particularly vulnerable group for BDD, both due to their heightened focus on esthetics and the psychosocial stressors associated with adolescence and young adulthood. Early recognition of these risk factors during consultation can guide clinicians toward appropriate screening, referral, and management pathways.

3. DIAGNOSTIC CHALLENGES IN ORTHODONTIC PRACTICE

BDD manifests as a disproportionate concern about appearance-related issues, often focused on minor or nonexistent dental and facial defects.

Common clinical features:

- Persistent dissatisfaction despite objectively normal orthodontic results.
- Requests for unnecessary or repeated treatments.
- Emotional distress out of proportion to clinical findings.

Screening Tools:

- **Body Dysmorphic Disorder Questionnaire (BDDQ):** Quick screening for dental settings.[10]
- **Structured Clinical Interview for DSM Disorders (SCID):** Diagnostic standard in psychiatric settings.[11]

Red Flags for Clinicians:

- Multiple prior consultations.
- Frequent requests for treatment alterations despite good outcomes.
- Emotional volatility during consultations.

4. CLINICAL IMPLICATIONS FOR ORTHODONTIC TREATMENT

Patients with undiagnosed BDD present challenges such as:

- Unrealistic treatment expectations.
- Increased dropout rates.
- Risk of post-treatment dissatisfaction and litigation.[12]
- Worsening psychological distress if underlying issues remain unaddressed.

5. MANAGEMENT STRATEGIES

The effective management of Body Dysmorphic Disorder (BDD) in orthodontic patients requires a carefully structured, multidisciplinary approach that balances the patient's esthetic demands with their psychological well-being. Since orthodontists often serve as the first point of contact for individuals seeking improvement in facial appearance, they play a critical role in the early detection, referral, and supportive management of patients with suspected BDD.

1.Eary Identification: The cornerstone of management lies in timely recognition. Given that BDD often masquerades as an exaggerated concern about minor or imperceptible malocclusions, orthodontists must be proactive in screening during the initial evaluation. Incorporating validated questionnaires such as the **Body Dysmorphic Disorder Questionnaire (BDDQ)** or short, structured interviews can aid in differentiating between normal esthetic concerns and pathological preoccupation. These tools are simple to administer and can be seamlessly integrated into standard case history forms. Early detection is crucial because it prevents the initiation of potentially futile or harmful orthodontic procedures in patients who are unlikely to be satisfied regardless of treatment outcomes.

2. Patient Education and Expectation Management Open and empathetic communication is vital in preventing misunderstandings and treatment dissatisfaction. Orthodontists should set **realistic treatment goals** and openly discuss the limitations of orthodontic therapy. Patients with BDD often harbor unrealistic expectations, such as achieving "perfect" alignment or a "completely symmetrical" face, which are unattainable even with advanced orthodontic techniques. Clinicians must emphasize that orthodontics can improve dental function and esthetics to a certain extent, but it cannot guarantee flawless results or resolve deeper psychological distress. Providing clear, honest, and repeated counseling may also encourage patients to recognize the psychological component of their concerns.

3. Interdisciplinary Collaboration: Given the psychiatric nature of BDD, orthodontists should not attempt to manage the condition in isolation. A collaborative approach involving mental health professionals—psychiatrists, clinical psychologists, and counselors—is essential. When BDD is suspected, a timely referral for further assessment should be initiated. Evidence strongly supports the efficacy of **Cognitive Behavioral Therapy (CBT)** in reducing obsessive thoughts and improving coping strategies in BDD patients. Similarly, **selective serotonin reuptake inhibitors (SSRIs)** are considered first-line pharmacological therapy and have been shown to reduce symptom severity and functional impairment [13,14]. Establishing referral networks with mental health providers allows orthodontists to ensure that patients receive appropriate psychological intervention while still maintaining trust and rapport with the dental team.

4. Ethical Considerations: Ethical responsibility is central to the management of BDD in orthodontic care. Providing elective esthetic treatment to a patient with active, untreated BDD may exacerbate psychological distress, fuel repeated treatment-seeking behaviors, or even expose clinicians to litigation if outcomes do not match the patient's expectations. Therefore, **elective orthodontic procedures should be deferred** until the patient undergoes psychiatric evaluation and stabilization. This approach not only safeguards patient welfare but also upholds professional integrity. Additionally, orthodontists must ensure that **informed consent** is obtained in detail, highlighting the risks, limitations, and realistic outcomes of treatment. Comprehensive documentation of discussions and decisions provides a safeguard for both the patient and the clinician.

In summary, the management of BDD in orthodontic patients hinges on **early recognition, transparent communication, and interdisciplinary care**. By integrating psychological screening into clinical practice and adhering to ethical guidelines, orthodontists can significantly reduce the risk of treatment dissatisfaction and contribute to the holistic well-being of their patients.

6. CONCLUSION

Body Dysmorphic Disorder (BDD) occurs more frequently in orthodontic patients than in the general population and often goes undiagnosed. Its presence may lead to unrealistic expectations, dissatisfaction, and psychological distress despite successful treatment. Early screening with tools like the BDDQ and clear communication of treatment limitations are vital. Collaboration with mental health professionals, particularly for Cognitive Behavioral Therapy (CBT) and pharmacological support, ensures comprehensive care. Orthodontists should prioritize patient safety and ethical responsibility, deferring elective procedures until stabilization. Integrating psychological assessment into orthodontic practice can improve outcomes, enhance satisfaction, and reduce medico-legal risks

Graphical Summary Table: BDD Screening for Orthodontists

Step	Clinical Indicator	Recommended Action
1. Initial Consultation	Excessive concern about minor defects	Use BDDQ screening tool
2. Risk Factor Assessment	History of bullying, perfectionism, or psychiatric illness	Document and consider referral
3. Red Flag Behaviors	Multiple prior consultations or dissatisfaction despite good results	Discuss psychological aspects
4. Referral	Positive BDD screening or severe distress	Refer to mental health specialist before orthodontic treatment

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