

Psychological impact of Orthodontics

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Abstract

Since facial beauty is a critical component of social interaction and identity, a deformed person experiences increased anxiety as he adjusts to his life, and it also contributes to the "Pathology of interaction uneasiness with these stigmatized individuals." In many orthodontic cases, the operator's understanding of his patients' emotional health is the key to success or failure.

Facial aesthetics significantly influence social interactions and personal identity; thus, individuals with facial deformities often experience heightened anxiety and social discomfort. This can lead to challenges in social interactions and increased unease.

The discussion is divided into two main categories:

1. **Physical Appearance:** This section explores how one's looks affect personal adjustment, self-concept, and body image.
2. **Treatment Factors:** This part examines the motivations behind seeking orthodontic care and the importance of patient cooperation during treatment.

Keywords : inspiration, self-esteem, self-perception

Introduction:

Beyond enhancing physical appearance, orthodontic treatment empowers individuals, instilling a sense of control and the belief that, through cooperation, they can influence treatment outcomes. A foundational understanding of psychology is essential in modern orthodontics, as it studies individual behaviors in social contexts and the impact of these interactions.¹

Facial aesthetics play a pivotal role in shaping self-perception and how others perceive and interact with an individual.^{2,3} Research indicates that physical attractiveness significantly affects social interactions.⁴ Individuals with dentofacial anomalies may face psychosocial stress, either directly from teasing or indirectly due to societal stereotypes. Dental irregularities have been linked to teasing and reduced social attention among children.⁵ Psychosocial challenges for those with physical disabilities arise both from societal responses to the disability and the individual's personal reactions to their condition.

Psychological Impact of Dentofacial Deformity:

The appearance of one's mouth and smile is crucial in determining facial attractiveness. National surveys have shown that many Americans consider dental appearance vital in social interactions, especially among young people selecting dating partners.^{6,7}

Research has found that conditions like excessive overjet, deep bite, and dental crowding are associated with negative self-perceptions of teeth. Significant overjet and other dental issues have been linked to increased reports of teasing among children.^{8,9}

The initial psychological effect of dentofacial deformity often manifests as an inferiority complex, characterized by feelings of incompetence, inadequacy, and varying degrees of depression.

Considerations for Orthodontic Treatment:

The desire to correct malocclusion is frequently driven by psychological and social factors rather than purely physical needs. The interplay between psychology and orthodontics has often been overlooked or addressed superficially.

Studies have found a positive, albeit modest, relationship between the severity of malocclusion and perceived aesthetic appearance.¹⁰ Research indicates that individuals with psychosomatic conditions tend to focus more on the affected organ, which can be relevant in orthodontic contexts.¹¹

Malocclusions have been ranked in terms of attractiveness, with Class I open bite deemed most attractive, followed by Class II and Class III. Interestingly, patients with Class II malocclusion are more motivated to seek treatment than those with Class III.¹² Research has shown that a significant number of orthodontic candidates have not experienced teasing about their malocclusion, suggesting that teasing may not be a primary motivator for seeking treatment.

Dentofacial deformities can impact personality, self-perception, and behavior. Individuals with such conditions may internalize negative societal messages, leading to self-devaluation. Protecting and enhancing self-esteem are fundamental human motivations. There is a notable relationship between low self-esteem and psychological distress, particularly depression and anxiety, which is especially pertinent for those with facial deformities.

Both professionals and the general public are increasingly recognizing the effects of malocclusion. In professional settings, orthodontic counseling typically considers both physiological and aesthetic implications. Among laypeople, appearance is often the primary factor driving the decision to seek treatment. Thus, the perceived need for orthodontic care is influenced by current sociocultural standards and various complex psychosocial factors.

Motivation for Orthodontic Treatment:

A primary motivator for patients or parents seeking orthodontic care is aesthetics, intertwined with psychological concepts of self and body image.¹³ Self-image encompasses issues related to body image and self-concept, defined as one's perception of their ability to effectively interact with their environment.¹⁴ Body image refers to the mental representation of one's physical self, including attitudes about the body's structure, function, and appearance.

Research indicates that mothers often play a decisive role in initiating orthodontic treatment for their children.¹³ Further studies have found that an aesthetically pleasing dentition is more desirable for females than males, according to parents. For dependent adolescents, parental wishes are paramount, while self-reliant adolescents prioritize practical considerations. These patterns are more evident in families of higher socioeconomic status.

Patient cooperation is crucial, regardless of the treatment type. Studies have reported that uncooperative patients often have strained relationships with their parents, whereas cooperative patients tend to be more conventional and compliant.¹⁵

Timing of Orthodontic Treatment:

Determining the ideal timing for orthodontic treatment is a subject of debate. Early intervention can be psychologically beneficial for children whose self-image has been damaged by peer teasing. Selecting patients based on age and type of malocclusion is essential before commencing treatment.^{16,17}

It's important to recognize that no universal approach applies to all patients, given the wide variations in physical development, emotional maturity, social experiences, attitudes toward authority, and responsibility acceptance.

Conclusion:

Patients and their parents place significant trust in orthodontists, relying on them to determine the necessity of treatment. Not all treatments will be successful, sometimes due to factors beyond the practitioner's control, such as lack of patient cooperation or unpredictable growth patterns.

Astute orthodontists recognize and address the emotional reactions of their patients, treating not only the malocclusion but also the associated psychological fears and frustrations. Understanding the patient holistically—including their family and environment—is crucial, as effective therapy encompasses treating the whole person, not just the specific condition.

References:

1. Giddon D. B: Psychologic Problems Of Physically Handicapped. IOJ 1975; 25: 576-581 .
2. Gershater M. M.: A Study of Orthodontic Problems of 465 Emotionally Disturbed Children. Thesis, 1954.
3. Brandhorst O. W.: Will Orthodontics Become a Part of Contemplated Govt. Health Programmes for Children? ..LD. Educ. 1946; 10:138-143.
4. Heidi Kerosuo, Hannu Hausen, Tellervo Laine and William C. Shaw: The Influence of Incisal Malocclusion on the Social Attractiveness of young Adults in Finland. Eur.J. Orthod. 1995; 17:5Q5..512.
5. Ceib Phillips, Elizabeth Bennett & Hillary L. Broder: Angle Orthod. 1998; 68 (6): 547-555
6. Varela M., Garcia Camba: Impact Of Orthodontics on the Psychologic Profile of Adult Patients: A Prospective Study. Am. J. orthod. 1997;95: 142-148.
7. Brown and Moerenhout: Pain Experience and Psychological Adjustment to Treatment. Am.J. Orthod. 1997;91 : 349-356.
8. Helm S., Kereiborg S., Solow B.: Psychological Implication Of Malocclusion: a 15 yr. Follow up study on 30 yrs. Old Danes. Am. J. Orthod. 1997;85: 110-118.

9. Shaw W. C.: The Influence of Children's Dentofacial Appearance on their social attractiveness as Judged by peers and lay adults. *Am. J. Orthod.* 1981 ;79: 399-415.
10. Secord P. F., Backman C. W.: Malocclusion and Psychological factors. *J. Amer. Dent. Ass.* 1959; 59:931-938.
11. Tait C. D. , Ascher A.: Inside of the body test: A Preliminary Report. *Psychosom. Med.* 1955; 17:139
12. Wilmont J. J., Barber H. D., Chou D. G., Vig K. W : Associations between severity of dentofacial deformity and motivation for orthodontic orthognathic Surgery treatment. *Angle Orthod.* 1993; 63: 283-288.
13. Baldwin D. C . Barnes M. L.: Psychological factors motivating Orthodontic treatment. *I.A.D.R.* 1965; 44: 461 .
14. Alice W., Tung B. S . Asuman Kiyak: Psychological Influences on the timing of Orthodontic Treatment *Am. J. Orthodontol.* 1998; 113 (1): 29-39.
15. Kreit L. H . Burstone C . Delmon L. : Patient Cooperation in Orthodontic Treatment. *J. Amer. Coll. Dent.* 1968;35:327-332
16. Alex Jacobson: Psychology and early Orthodontic treatment. *Am. J. Orthod.* 1979; 76 (5): 511-529
17. Adrian Becker, Joseph Shapira and Stella Chaushu: Orthodontic treatment for disabled children: Motivation, expectation and satisfaction. *Eur. J. Orthod.* 2000; 22:151-158.