

Self-Esteem Improvement after Orthodontic Treatment

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Abstract

Patients identified with orthodontic diseases experience several psychological abnormalities such as depression, suicidal thoughts, low self-esteem and bullying from other peers in school and preadolescent age. The abnormalities in teeth, gums, and lips constitute a major role in decreasing self-esteem among those individuals. Patients seek orthodontic therapy not only to restore the normal masticatory process but also for improving the psychological abnormalities associated with facial disfigurement. Current evidence indicated that early treatment of orthodontic diseases has a significant role in increasing the levels of self-esteem among affected patients. Assessing physical and psychological anomalies associated with orthodontic diseases in early age is critical to allow normal physical and mental growth.

Keywords: Orthodontic; Self-Esteem; Review

Introduction

The good interaction between the orthodontist and the patient is the key factor for a successful practice [1]. Orthodontists lie in a unique position among other dental specialties for having regular and systematic contact with their patients [2]. This position becomes more evident considering the fact that most of the orthodontists' patients are in preadolescence or adolescence stages [2]. Those patients, in particular, are in a critical stage of the psychological development; hence, the importance of the Orthodontist-patient relationship and how can it influence patient's self-esteem along with social perceptions and exposure to bullying [2-4]. The aforementioned facts make orthodontists play a significant role in the identification of some psychiatric disorders and abnormal behaviors, including; suicidal thought, lack of self-confidence or even substance abuse [2]. With that in mind, the orthodontists play a major role more than just treating the malocclusion, similar to that of a psychologist, to detect and refer and possible patients with suspected psychological disturbance. The aim of this article is to review the self-esteem aspects that are relevant to clinical orthodontics highlighting the dynamic role an orthodontist plays both as the treating practitioner to detect and refer cases in danger.

Methods

We conducted an electronic database search for suitable studies till July 2019 in five databases including Google Scholar, Scopus, Web of Science (ISI), PubMed, and Medline. A manual search of references was done to detect any possible related papers. We included all studies reporting self-esteem improvement after orthodontic treatment with no restriction on language or year of publication.

Self-esteem and social perceptions

Self- and social perceptions are both significant factors affecting the decision of seeking an orthodontic treatment [5]. Moreover, the perceptions of facial aesthetics can have a pivotal influence on the psychological development of children, adolescents and even adults [5]. The infant's visual perception and preference of human faces are adaptive; recognition of familiar faces can be critical to maintaining the infant's survival [6,7]. Infants can discriminate between unfamiliar and familiar faces by the age of six months [6]. In the same context, children would have developed internalized cultural values of physical attractiveness by age of six years [2,6]. Noteworthy, by the age of eight, children have the same criteria for attractiveness as those of adults [8]. This perception may go further for more important aspects of life. It has been noted that the teacher's expectations and the first impression of children can be influenced by his perceptions of the child's attractiveness [9]. Additionally, children perceived as attractive ones are more accepted by their peers and found to have more intelligence and better social skills [2,10]. Mouth appearance and smile perceptions play a major role in the judgments of facial attractiveness [11]. Moreover, children have reported teeth appearance as a common target of bullying [12]. The self-perception of the dental appearance has been reported as the most common factor for seeking orthodontic treatment [13,14]. The perceived need for treatment by the patients does not always reflect the actual clinical need that would be assessed by an orthodontist [15,16]. Noteworthy, the self-perception of the need for the orthodontic treatment was found to be more in females; however, the actual clinical need found to be more in males with no obvious differences among socioeconomic strata [2,15,16].

Psychological abnormalities associated with orthodontic diseases

Besides the need for correction of physical disabilities related to the abnormal masticatory process of orthodontic individuals, patients seek orthodontic treatment for improving psychological disabilities associated with the abnormal disfigurement of their mouth, gums, and teeth [17]. The cosmetic abnormalities of orthodontic diseases imply negative consequences of the social life of affected patients. The incomplete satisfaction of patient orthodontic abnormalities, the interference with the acquiring new jobs, the attractiveness of the other partner during relationships and the evaluation of the teacher upon the child appearance constitute a major problem that interferes with psychological life of those individuals [18,19].

Bullying and self-esteem

The aggressive behavior and the intentional harm produced by the bullies on their orthodontic victims through different methods—mostly verbal ones—alternates with the normal psychological development of the child, therefore the need for orthodontic treatment should be applied to allow normal physical and mental development. The incidence of bullying varies according to the degree of orthodontic abnormality, age and sex the patient [4]. Indeed, teeth disfigurements increase the susceptibility for bullying from other children in schools. Shaw, *et al.* [20] reported that 7% of bullied children were due to teeth problems; however 60% of the bullied children experienced bad emotional consequences related to bullying activity. In a cross-sectional study conducted in the United Kingdom of orthodontic patients aged 10 - 14 years, the prevalence of bullying was 12.8%. Moreover, bullied patients have significantly higher functional limitations, emotional and social affection [4]. Furthermore, orthodontic treatment provides a significant improvement in preventing bullying actions initiated bullies. In a cohort study, post-orthodontic treatment was associated with a significant reduction in bullying actions in addition to the increase in the emotional and social life of those patients [21].

Depression

Orthodontic patients suffer from stigmata of depression and alternates with daily activities. In a cross-sectional study for Pakistani individuals requiring orthodontic treatment, depression was the 3rd psychological abnormalities following stress and anxiety, 32%, 46%, 37%, of total patients respectively. Moreover, female patients are more prone to depression rather than male individuals with a percentage of 78% and 22% of depressed patients respectively [22]. In addition, Adrian., *et al.* [23] revealed that 39% of patients identified with temporo-mandibular joint disorders affected with depression, meanwhile 55% of patients are affected with somatization.

Suicide

Suicide constitutes a major problem among physicians with multifactorial etiologies. The associated psychological abnormalities and bullying activities progress to suicidal thoughts among orthodontic individuals and consequently suicide commission. Low self-esteem and employment problems can play a significant role in increasing the risk of suicide in orthodontic patients [24]. Loochtan and colleagues [25] recommended that recognition of early signs and interventions used for the prevention of suicide is essential among orthodontics.

Improvement of self-esteem after orthodontic treatment

Self-esteem is defined as the degree of satisfaction about individual overview including shape [26]. Orthodontic diseases play a crucial role in decreasing the level of self-esteem especially in children compared to their peers. The need for orthodontic treatment for orthodontic patients stems from the hypothesis that individuals possessing straight teeth are more popular and successful [27]. In a cross sectional study on orthodontics and general dental practitioners, self-esteem improvement was the first common beneficial effects of orthodontic treatment [28]. Moreover, low self-esteem among 223 Belgium students indicated the need for treatment of orthodontic abnormalities [29]. Perillo., *et al.* [30] measured the self-concept of 516 untreated participants with orthodontic diseases, results indicated that orthodontic abnormality interferes with academic, social and familial acceptance. Noteworthy, the self-esteem of females affected with orthodontic malformations increased significantly following treatment of the associated anomaly compared to males [31]. In a large cohort study conducted by Shaw and colleagues, treated orthodontic patients have significantly more satisfaction with teeth, the attractiveness of teeth and less peer view of teeth comparison [32]. Furthermore, in a cohort study of 52 adults, significant improvement in self-esteem was found after the application of orthodontic treatment [33]. Despite that orthodontic treatment can be applied in adulthood for some diseases, early management during childhood period is favored derived from the hypothesis that treatment effects on child physical and mental health development compared to other peers [34].

Conclusion

Orthodontic diseases have a significant impact on the psychological life of affected individuals and are associated with low self-esteem. Early management constitutes a cornerstone in increasing self-esteem among peers and allowing for normal mental and physical development.

Conflict of Interest

None.

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