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Case Report

# Esthetic dental anomalies as motive for bullying in schoolchildren

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## ABSTRACT

Facial esthetics, including oral esthetics, can severely affect children's quality-of-life, causing physical, social and psychological impairment. Children and adolescents with esthetic-related dental malformations are potential targets for bullies. This study was aimed to present and discuss patients who suffered from bullying at school and family environment due to esthetic-related teeth anomalies. Providing an adequate esthetic dental treatment is an important step in their rehabilitation when the lack of esthetic is the main source of bullying. After dental treatment, we noted significant improvement in self-esteem, self-confidence, socialization and academic performance of all patients and improvement in parental satisfaction regarding the appearance of their children. It is imperative that both family and school care providers be constantly alert about bullying in order to prevent or interrupt aggressive and discriminatory practices against children and adolescents. Clearly, dental anomalies may be a motive for bullying.

**Key words:** Bullying, dental esthetic, tooth abnormalities

## INTRODUCTION

The over emphasis of dental esthetics is increasing in daily life and concerns about the outward appearance also affect children. Anatomy, color and harmony of one's teeth are especially important to the appearance of the face.[1,2] People who have well-positioned incisors are considered more attractive, intelligent and adjusted than others who have dental malocclusion and/or anomalies.[2-4] Severe deformities of the face region cause sympathy and compassion in people.[5] Paradoxically, more subtle deformities result in taunts and mockery, leading the individual to a situation of low self-esteem.

A child's smile reveals important aspects of their quality-of-life and how the child interacts in his/her environment.[6] A smile denotes a self-esteem, self-confidence and well-being.[7] Low *et al*.[8] showed that children with concerns about their teeth show less smile security. Self-perception is a part of children psychological characteristics and it is essential to be aware of how much they like their smile and how happy they are with it.[1] Oral disorders may expose an individual, particularly children of school age, to an embarrassing situation.

Among the various health professions, dentistry commonly experiences situations in which children and adolescents have been subjected to bullying.[9] In everyday clinical practice, children and their family seek for dental treatment concerned about teeth esthetic. Studies have investigated the effects of dentofacial appearance on psychosocial health.

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The findings suggest that developmental dental anomalies have a deep impact on quality-of-life.[4,10,11] Olweus[12] describes bullying as an anti-social behavioral phenomenon that violates the rights of another person and reflects intentional and repeated aggression, verbal or physical, against any unable to defend him/herself and can occur in any social context. Their victims may have serious psychological consequences, isolation, depression, anxiety and can generate lower performance and learning.[13]

Bullying in schoolchildren is a global phenomenon[9] and its effects can be short as long-term. The aim of this paper is to present three clinical reports in which children were discriminated in the school environment due to visible tooth anomalies involving anterior teeth.

## CASE REPORTS

**Case 1: Amelogenesis imperfect (AI)**

AI is a hereditary disorder that affects the enamel in either quality or quantity, compromising teeth appearance. According to phenotype aspects, AI may be classified as hypoplastic, hypocalcified, hypomaturation or hypomaturation hypoplastic with taurodontism.[14] The prevalence of this condition has been expected to range from 1/718 to 1/14,000.[15] The teeth esthetic and issues associated with the enamel such as sensitivity, staining and roughness may cause psychological and functional concerns to the patient.[16]

A 10-year-old female, sought dental care for extraction of all her teeth and dentures placement. According to her mother's report, all females and some males of their family had similar dental aspect. At the age of 14, the mother had all her teeth extracted and replaced by dentures.

The child's dental appearance was a source of teasing, especially at school. The patient was discriminated by the classmates at the break time and during group activities. The discriminatory behavior lasted for months and resulted in low learning performance, low self-esteem and introspectiveness. Negative comments about her teeth were routine, hindering the child's social interaction. The school Psychologist noticed that many embarrassing situations occurred due to the appearance of her teeth.

During the clinical evaluation, the patient did not smile and avoided talking, trying to hide her mouth. In addition, it was clear that the family disapproved the child's appearance. Clinically, the child's presented yellow colored teeth with an irregular rough texture due to mineral deficiency and areas with an enamel loss. The condition was diagnosed as hypomaturation AI and the treatment performed was an intense remineralizing therapy followed by a composite resin veneers [Figure 1a and b].

**Case 2: Dental enamel hypoplasia (EH)**

EH is a developmental defect of enamel caused by a disturbance in the secretion or maturation of an enamel matrix. It impacts the quality and/or quantity of the enamel deposited. The severity of the defects depends on the phase of amelogenesis involved and the duration of the stimulus on the ameloblasts.[17] It may be related either to hereditary causes, affecting all the teeth on both dentitions or acquired ones, involving one or more teeth. When EH is related to a hereditary cause it can be also called AI.[18]

A 10-year-old female patient presented a malformation of the permanent maxillary left canine (hypoplasia) [Figure 2a] that affected masticatory function and social life.

During early childhood, the child was outgoing and communicative. However, at age of 9, your social behavior started changing. According to the family report, the child became quiet and easily isolate. A similar behavior changing occurred at school, the child stopped talking and did not participate in collective activities. With family consent, the child was evaluated by a Psychologist and she reported

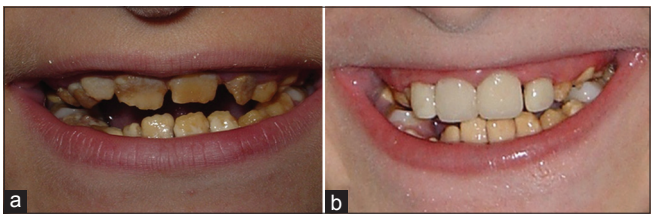


**Figure 1:** (a) Clinical aspect before esthetic treatment of teeth stricken by hypomaturation amelogenesis imperfecta: Rough-looking yellow teeth due to mineral deficiency and areas with loss of structure; (b) early treatment with esthetic veneers on permanent maxillary incisors

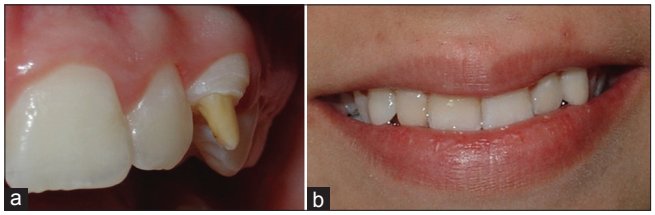


**Figure 2:** (a) Permanent maxillary left canine with dental hypoplasia as a result of disturbance during the apposition of enamel; (b) aspect after the cosmetic restorative treatment

being constantly called a "vampire" by classmates because of her canine tooth. The child was referred for dental treatment with a direct cosmetic restorative restoration [Figure 2b] to improve her self-esteem and self-image, associated with counseling to minimize the effects of bullying.

**Case 3: Molar-incisor hypomineralization (MIH)**

The term MIH defines a hypomineralization of systemic origin that affects one to four permanent first molars. It is frequently associated with affected incisors as well. MIH has been linked to environmental changes such as pre-and perinatal problems, respiratory diseases, high fever diseases such as chicken pox and the frequent use of antibiotics in early childhood. Recently, studies showed that genetic variation in some enamel formation genes is associated with MIH.[19,20] The prevalence of MIH varies considerably throughout the world, ranging from 2.5% to 40%.[21]

An 8-year-old girl, after a careful anamnestic and clinical evaluation, was diagnosed with MIH [Figure 3a]. According to her mother, the family was concerned about the permanent incisors opacities. Due to partial eruption of the teeth, a preventive treatment was performed. However, the child still suffered with a verbal mocking by schoolmates, who said that she had not brushed her teeth and had "rotten teeth." Unfortunately, the stained surface fractured, what increases the bullying frequency. Family members, including aunts and cousins began to talk about the girl's appearance. The mother sought professional help and also notified the school. The dental treatment was performed with a glass ionomer cement to remineralize the structure before placing veneers [Figure 3b].

In all three cases, patients had suffered direct or indirect discrimination, exposing them to bullying in school and in their family environments. The children did not feel emotionally supported since they were always subject of comments about how different their teeth were. On physical and clinical examination and according to the reports, it was observed that there were no other factors beyond the tooth, which contributes to bullying. Patients felt socially excluded, "punished" and inferior to other people. After temporary treatment, they all reported higher self-esteem, greater happiness, freedom and social acceptance.

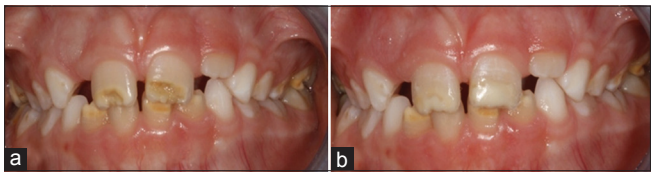


**Figure 3:** (a) Molar-incisor hypomineralization: Mineral and structural deficiency in permanent incisors and molars; (b) initial stage of esthetics treatment on maxillary incisors

## DISCUSSION

In recent decades, bullying has been reported as one of the most prevalent forms of violence in schools and as a precursor to other more serious forms of violence.[13,22] The negative effects of bullying affect not only the victim but also the family, school and even society, since longitudinal studies have showed that children who are bullied are more likely to develop antisocial behavior such as vandalism, drug abuse and violent attacks in adulthood,[13,22-26] as well as low self-esteem and lower sense of empathy toward others.[23]

The bullying prevalence in school-aged children varies greatly, under several factors as gender, age and culture of victims and perpetrators. In addition, the study design, cultural differences, bullying understanding, the time frame used to determine the frequency of bullying and the criteria used to differentiate between victims and non-victims are also factors that may explain these variation.[4,27] In general, the most common form of direct aggression caused by bullying is verbal (30.9%), followed by spreading rumors against the victim (24.8%) and physical aggression (14.7%).[27,28] The prevalence of indirect aggression is possibly underestimated due to the failure of both individuals and teachers to recognize it as a form of bullying.[29] In the cases reported here, fortunately discriminatory act was limited to verbal abuse, there was a clear discriminatory attitude from family members that declared that such changes were not normal and that the teeth were ugly, without being careful not to embarrass the child. Although, we know all the consequences of such behavior, we believe that such conduct was a result of the lack of clarification about the causes and possible treatments for enamel defects.

The facial pattern appears to be more influential than the individual's dental appearance.[2] However, in the cases described, the bullying was due to dental problems that influenced the individual's personality. In this context, it is reasonable that clinicians may encounter children who are experiencing bullying

at school. According Lyznicki *et al*.,[30] the clinician's role involves to identify the children at risk, counsel families, screening for psychiatric co-morbidities and prevention. However, to Seehra *et al*.,[4] a clear guidance to dental care practitioners is lacking, especially because this situation may involve other specialties.

The esthetic procedures performed in young children were temporary, since the child is still growing. They are not very expensive at this point and minimally or not invasive, giving the opportunity for a permanent treatment later. After completion of dental treatment and the involvement of family and school psycho-pedagogical monitoring, patients reported they no longer were victims of verbal abuse. Significant improvements in self-esteem, self-confidence and socialization of all patients, began within a few days after completion of treatment. In addition, the parental satisfaction regarding the appearance of their children was much improved. In this context, we highlight the importance of dental care and cosmetic dentistry to improve the quality-of-life of patients and to combat this discriminatory behavior that has been growing in recent years, especially in school environments.

The cases reported here demonstrate the need for a new teaching approach in dental schools, to sensitize dental professions to the negative social consequences of poor oral hygiene, rampant caries, developmental orofacial defects, including bullying. We believe that prompt dental treatment can corroborate to social integration, well-being and self-esteem of individuals and may reduce even prevent their exposure to bullying. However, psychological distress is not automatically reversed after dental treatment, which may have a negative impact for life. Thus, even after dental care, the child must be monitored by a Psychologist.

## CONCLUSION

By providing a satisfactory esthetic condition to patients and parents, the cosmetic dental treatment was capable of restoring self-esteem and self-confidence, culminating in a greater socialization in school and in their own home environment, reducing the exposure of these individuals to bullying and its consequences.

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