

## CHILDREN'S NEUROTIC DISORDERS: ORTHODONTIC EFFECTS

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### ABSTRACT

This paper aims to establish a theoretical approach to the problem of children's neurotic disorders and their orthodontic effects. It will provide an overview of the literature on the definition of children's neurotic disorders, summarizing specific approaches related to these disorders. The theoretical article also highlights and explains the main issues arising from orthodontic effects. The article will also explain some theoretical models that analyze specific neurotic disorders in children's early life.

The novelty of this article also mentions the forefront disorders such as bruxism, biting lips, sucking finger, which are related with psychological and psychiatric effects on the orthodontic development. In some cases, children aged up to 5 years are developing an anxiety related to changes that occur in the development of their organic, emotional and cognitive progress. I think it is useful to understand these concepts in interrelation with the orthodontic development and be aware of correlations between these growths and the adequacy of treatment.

**Keywords:** neurotic disorder, bruxism, orthodontist, anxiety

### I. DEFINITION OF NEUROTIC DISORDERS

Neurotic disorders are mild mental problems, situated near the threshold of normality and it is completely cured by medication. In young children, emotional immaturity does not allow real awareness of trauma, the language is less developed and the state of suffering becomes less visible; child does not complain of illness but will react physically to the emotion of those around the new health condition. (4) Neurotic disorders are often caused by some traumatic factors that can't be defeated by their own psychological means. These factors can have traumatic variable intensity though a long duration of action may trigger other factors such as social, educational, cultural or other organic predispositions. In children, these skills are considered and regarded as neurotic disturbances releasing the psychic energy hence causing pain (bruxism, biting lip) or by causing pleasure (thumb sucking).

### II. BRUXISM-NEUROTIC DISORDER: ORTHODONTIC DEVELOPMENT

Bruxism is a disorder of movement of the masticatory system, which is defined among others by

collecting and grinding of teeth; both in awake and sleep state. Bruxism is often encountered in the adult population in general about 10% and is typically seen as one of the possible etiologic factors, among others: temporomandibular pain, tooth wear, and loss of dental implants. Bruxism is generally a clinical problem that shows adverse effects of dental tissues, periodontal and musculoskeletal. Bruxism can ultimately lead to bone loss around implants or even implant failure. Not surprisingly, bruxism is very often a contraindication of dental implant. So far, studies on the possible relationship between bruxism and implant failure does not give consistent results. This is partly due to the large variation in the literature regarding both the technical and biological aspects of the learning material. So there is still no evidence for the suggestion that bruxism can cause an overload of dental implants and superstructures. Lobbezoo et al. (7) concluded that a cautious approach is still recommended. There are few practical rules as to minimize the chance of failure of the implant. In addition to the recommendation to reduce or eliminate bruxism itself, these guidelines refer to the number and size of implants, the design of occlusion and articulation patterns and protection of the final result.

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These possible consequences musculoskeletal and dental bruxism illustrate the clinical importance of the disease. More importantly, it must be kept in mind that there is still a lack of agreement on, for example, the definition of bruxism, which makes it sometimes difficult to interpret unambiguously the available evidence. (7)

Most children have some form of bruxism resulting in canine teeth and molar moderate wear canine teeth. There is also pain in the jaw muscles and temporomandibular joint disorder attributed to bruxism. Most explanations focus on local factors, systemic and psychological issues.

A theory of researchers in England suggests that bruxism is a reaction to the occlusal interference, tooth restorations or irritating dental disease. Systemic factors involved in bruxism include intestinal parasites, subclinical nutritional deficiencies, allergies and endocrine disorders. Psychological theory states that bruxism is a manifestation of a personality disorder or increased stress. Children with musculoskeletal disorders (cerebral palsy) and severely retarded children grind their teeth frequently. Bruxism, in these cases, is the result of physical and mental illness and is difficult to treat.

### III. BITING LIPS AND SUCKING IN ORTHODONTIC DEVELOPMENT

Thumb sucking is a natural instinct that normally occurs in the first few months of life. Children beyond the age of 5 developing this behavior often will have problems and issues with their dental development: malocclusion, prognathic jaw or mouth and palate deformities that can be corrected only after the child has stopped the sucking habit. From a psychological perspective, a continuation of sucking after the age of 5 may signify an emotional problem (eg. following a traumatic event) or anxiety. In this case, it is recommended that parents consult your dentist to recommend a child psychologist and a special dental examination to identify irregularities occurring in the mouth and orthodontic measures that can be taken as appropriate.

Therefore, a child who sucks his thumb rarely may not produce many changes in tooth position, while a child who sucks his thumb continuously (more than 6 hours) can cause significant dental changes. Duration finger sucking habits (months or years) is definitely related to the increasing prevalence of open earlier occlusion or occlusion overbite, overjet increased, increasing depth and decreasing width of the maxillary arch. Face-lingual movements of incisors depend on how the fingertip

is placed and the number of fingers placed in the mouth.

Glavan and Bratu (5) believes that the acute habit of thumb sucking may occur in the following situations: the children in the first weeks of life had problems with eating; molars eruption when finger is used as a tool helpful for relieving rash; some children suck their thumbs to decrease muscle tension; some do it to draw parent's attention; and some children have feelings of inferiority.

Boboc (1) indicate the following treatments and methods for children who have this acute habit of sucking finger. You can use a pajama sleeve to be fitted with gloves, like a shirt; the two sleeves and pajama pants, the pajama is threaded with a rope. In the evening tie the rope to cuff of pants so that the rope prevents the finger to enter the mouth. These extreme measures are necessary unless you adopt an awkward and tiring strategy. Equally important is that the child should not be scolded or granted rewards even when he/she will not perform this type of behavior.

### IV. SIGNIFICANT ASSOCIATION BETWEEN NEUROTIC DISORDERS AND ORTHODONTIC TREATMENT

It is very important for children that dental care starts as early as possible, even during pregnancy, by informing parents about the importance of preventing unhealthy teeth. Parents' attitude toward dental problems is critical in shaping children's behavior towards them.

We must be cognizant of children's visit to the dentist. Dental treatment itself, for some children, is very stressful. They perceive the orthodontic treatment as emotional stress much higher than in preventive dentistry or reconstitution; „dental anomaly itself or wearing an orthodontic defense often give children feelings of inferiority.“ (2) The issues involved in orthodontia proven psychosomatics have been neglected even until now, because the technical implications of treatment.

Important to note is the fact that if the orthodontic treatment begins at an early age of the child; the need for complex orthodontic treatment will decrease and there will be no need for permanent teeth extractions or surgery orthogenetic in the future of the child's life.

According to Richardson (1999) there are three key examinations to establish a patient's orthodontic treatment: (1) at the end of the temporary tooth formation (i.e. around the age of three years); (2) after the eruption of permanent incisors in the early

mixed dentition (around the age of 7-9 years); and (3) at the end dental permutation in late mixed dentition (around the age of 11-12 years).

If neurotic behaviors are considered in orthodontic plans (both teeth and surrounding areas) and are, practiced often and frequent, then we can talk about the presence of a disorder. It is very im-

portant we detect these habits as early as possible in the child's life – and accentuate the important role being played by the parents on this matter. Without basic health education of parents and the child's caretakers, medical interventions will continue to face functional imbalances.

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