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Oral Bad Habits

A Project Submitted to The College of Dentistry, University of Baghdad, Department of Orthodontics in Partial Fulfillment for the Bachelor of Dental Surgery

By

Abbas Sabir Rdewi

Supervised by

Dr. Dhelal Al-Rudainy

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Certification of the Supervisor

I certify that this project entitled " **Oral Bad Habits** " was prepared by the fifth-year student **Abbas Sabir Rdewi** under my supervision at the College of Dentistry/University of Baghdad in partial fulfilment of the graduation requirements for the Bachelor Degree in Dentistry.

Supervisor's name

Dr. Dhelal AL-Rudainy

Date

Dedication

This review is dedicated to my supporting family and friends. I would not have been able to complete dental school without them.

Acknowledgement

This review was not possible if it weren't for the support and guidance of mywonderful supervisor **Dr. Dhelal AL-Rudainy.**

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List of Abbreviations

- DMFS: decayed, missing and filled surfaces in permanent teeth due to caries
- TMD: temporomandibular disorder
- AB: awake bruxism
- OCD: obsessive compulsive disorder
- ENT: ear-nose-throat
- OHRQoL: Oral Health-related Quality of Life

Introduction

As a dentist the most important thing to us is oral health, many research papers were made on oral health and the factors that have negative effects on the oral hygiene of children. Oral health is essential for normal growth of the face and well-being. Many studies have linked abnormal growth of the jaws and dentition to bad oral habits in children. Among these factors are bad oral habits.

A habit is an automatically done behaviour that could be repetitive and continuous. Harmful habits are a popular issue among paediatricians, which influences the quality of life. Bad habits are frequent behaviour inside the mouth. **(Obayes et al., 2021)**. Oral habits are defined as the result of the repetition of an act with a certain purpose, becoming with time resistant to change. Generally, at first, it is conscious; nevertheless, with the habit acquired by the repetition of acts, it becomes unconscious. The degree of functional deviations provided by habits depends on the triad consisting of intensity frequency and duration **(Mylena et al., 2018)**. There are different types of oral habits have presented in the literature, and their effects on occlusion have been presented. The degree of malocclusion was varied, and this variation may be related to different factors.

Bad oral habits have negative effects on aesthetic as well as functional issues such as poor speech, chewing, and swallowing **(Kharat *et,* 2014).** Bad oral habits can be managed in a variety of ways by many treatment protocols, including parental and patient advice, the use of a dental appliance, or behaviour modification techniques **(Borrie *et,* 2015).**

Aims of the study

This study aimed to explore the effect of bad oral habits on occlusion, demonstrate types of bad oral habits and determine the best treatment approach for bad oral habits.

1 Chapter One: Review of Literature

Chapter One: Review of Literature

1.1. Definition

A habit is an automatically done behavior that could be a repetitive and monotonous. Harmful habits are the popular issue of pediatricians, which influences the quality of life. Bad habits are a frequent behavior inside the mouth. **(Obayes et al., 2021)**

Oral habits are defined as the result of the repetition of an act with a certain purpose, becoming with time resistant to change. Generally, at first it is conscious; nevertheless, with the habit acquired by the repetition of acts, it becomes unconscious. The degree of functional deviations provided by habits depends on the triad consisting of intensity frequency and duration. **(Mylena et al., 2018)**

If the oral habits are practiced at a higher level, and for a longer duration, the muscular imbalance in the growing dental structures will lead to malocclusion, deformation of the face and slackening of speech. There is a clear debate about the role of bad oral habits (thumb-sucking and biting nails) and on oral health and the state of the dental caries, but there is no doubt that continuing these bad habits until advanced ages will lead to deep and difficult problems to solve. **(Obayes et al., 2021)**

The exertion of minute un-opposed forces on the same area repeatedly for a long time will result in deformation of the orofacial complex, especially at the young age when the maxillofacial complex is still growing, and cause a consequent orofacial dysfunction which will, in return, affect the child's OHRQoL**. (Abd-Elsabour et al., 2022).**

1.2 Types of bad oral habits

Bad oral habits include nonnutritive sucking (of the thumb, pacifier, and lips) and thehabit of nails biting, as well as the grinding of teeth in addition to the mouth breathing**. (Obayes et al., 2021)**

Children experience a phase of growth and development in which their bone structures are moldable and physiological habits serve as stimuli for normal jaw growth (e.g., speech, normal swallowing, chewing). Deleterious habits (e.g. thumb sucking, lip sucking and biting, nail-biting, bruxism, mouth breathing and tongue thrusting) can interfere with the dental structure and may be part of the etiology of malocclusions that can cause an imbalance in muscle strength and changes in the normal functional aesthetics of the entire stomatognathic apparatus. **(Rodriguez-Olivos et al., 2022)**

1.2.1 Mouth breathing

The function of respiration is inserted in a larger organic complex called the stomatognathic system that is composed of static structures, which comprise the maxilla, the mandible, the temporomandibular joint, hyoid bone and cranial bones, and of dynamic structures that comprise those that move the static parts. All of these structures work together, under the control of the central nervous system, performing the functions of breathing, speech, sucking, chewing and swallowing. Several factors can cause oral breathing, such as anatomical, inflammatory, genetic and also infections. However, the hypotheses in which the individual breathes through the mouth due to habits acquired over time, without any real impediment in the upper airways, may be called myofunctional habits **(Busquet et al., 2021).**

1.2.1.1. Types of mouth breathing

- Obstructive: Children who have had interruptions in inhale air through the nose (nasal passage). **(Joelijanto, 2012).** Condori et al. found a direct relationship with maxillofacial alterations, according to the degree of adenoid obstruction caused by adenoid hypertrophy. Likewise, Rossi et al. defined a direct relationship between the degree of nasal obstruction and its repercussion on the facial, skeletal and dental pattern. However, a strong evidence-based association has not yet been established. **(Rodriguez-Olivos et al., 2022).**
  - Anatomical: due to lip incompetence **(Joelijanto, 2012).**
  - Habitual: due to a habit that can be dropped **(Joelijanto, 2012).**

1.2.1.2. Epidemiology

Mouth breathing was mostly observed among younger age group (7 to 9 years)it was about (6.3%). **(Basra et al., 2016).**

1.2.1.3. Effects:

Children who are mouth breathing usually narrow-faced, anterior teeth forward to the labial direction, and the lips open with the lower lip lies behind the upper incisive. Due to lack of normal muscular stimulation of the tongue and because of the excess pressure on the canines and in the molar area due to the orbicularis oris and buccinators muscles, then segment buccal of maxilla contracted and result in shaped V of maxilla and palatal height. So according to some opinions, mouth breathing tends to present clinically has long faced and narrow. When this is performed continuously, it can result in abnormalities in the anterior teeth of upperjaw (protrusive) and the anterior bite will be open (open bite**) (Joelijanto, 2012).**

Pediatric Sleep-Related Breathing Disorders (SRBDs) have been studied by various fields both diagnostically and therapeutically because of the detrimental

symptoms associated with this condition in attempts to better understand the etiology, pathophysiology of associated comorbidities, and best means by which to screen, diagnose, and treat these patients. Common symptoms of SRBD or clinical conditions that can be exacerbated by sleep and airway issues include neurocognitive and behavioral problems, chronic inflammatory conditions, and skeletal and dental developmental issues **(Bergersen et al., 2022).**

1.2.1.4. Management

The pathogenesis of mouth breathing habit is complex and multifactorial. Mouthbreathing is best managed by using a multidisciplinary approach where the specialists include pediatrician, physicians, pediatric dentists and ear-nose-throat (ENT) specialists who can help to remove the cause of obstruction. Since there is a close correlation between oral breathing and dento-facial in harmonies, the pediatrician and pediatric dentist should work together after an early identification of an oral breathing in a child **(Wasnik et al., 2020).** If these detrimental habits are not diagnosed in the initial stages, then it can be a complex procedure to correct the problem in advance stage. Sometimes, insevere cases, even it requires orthognathic surgery to correct the jaw position altered with such habits. So, these habits require proper attention to provide essential care to child patients.

1.2.2. Thumb sucking

1.2.2.1 Effects

This Oral habit can cause change field of incisal incisors, which retroclination on the lower jaw incisor and teeth proclination on the upper jaw incisor jaw thus increasing overjet and creating a unilaterally crossbite buccal asit relates to the shift of the mandible. It can also change the ratio between the middle andlower anterior facial height. As a result, anterior teeth position is much more advanced than the lower teeth, and going on an open bite. Finger sucking habit arising in children aged

1 to 2 years. And if it is left continuously until the age of 5 years or more can result in abnormalities in the position of the teeth. Finger sucking habit can cause abnormality cavum oris and surrounding structures, anatomically can cause anterior open bite that is a form of upper and lower anterior teeth abnormalities and there is overlapping when an occlusion. At the time of sucking finger pressure changes occur in the cavum oris. This is because while sucking, tongue was pushed down by the finger so that it is separate from the palatum. Then the orbicularis muscle contraction and buccinators continually separate causes leading to make colaps maxillary arch so it occurs crossbite (**Joelijanto, 2012).**

The Class I malocclusion with anterior crossbite was related to thumb sucking habit (Katz et al,2004). This may be due to a thumb sucking in a horizontal position of the fingers that stimulates a forward sliding of the jaw, just as Jimenez, 2016 foundthat Class II Div 1 malocclusion was related to atypical swallowing and lip sucking habits **(Rodriguez-Olivos et al., 2022).**

If the habit continues beyond the age of four to five years it is associated with dental changes in the primary, mixed and permanent dentition, such as ananterior open bite, which frequently leads to a secondary tongue thrust habit. Other changes include: Class II molar and canine relationship, excessive overjet, maxillary protrusion, posterior cross bite, digital deformity and paronychia. The adverse effects associated with thumb sucking are dependent on its frequency, intensity, duration and position of the digit in the mouth **(Reddy et al., 2019).**

Finger sucking is very normal and most common bad oral habits in children. It can be defined as the placement of the finger in varying depths into the oral cavity. Sucking is most often noticed when a child is worry, unsafe, tense or surrounded by strangers. It also can make sleep easy. It keeps the baby and toddler calm and relaxed when the child separated from his family. Regarding gender, it was found that girls tended to suck their thumbs more frequently thanboys did, and

this could be since girls are more sensitive than boys **(Obayes et al., 2021).**

Some cases show the thumb sucking habit can be a problem because there is the possibility of misalignment of permanent teeth if a child aged five orsix years still doing the thumb sucking habit. **(Joelijanto, 2012)**

Due to a lack of awareness and knowledge to the harmful effects of bad oral habits, some children may continue these habits into their teenage years.

Presence of the thumb or the nail inside the mouth may act as a foreign body that aid in carrying of various types of microorganisms from the surrounding environment to the oral cavity. This may lead to altering the oral ecosystem, which in turn may lead to increasing the chance of affecting by dental caries. They may lead to spreading of many infectious diseases, respiratory disorder, speech difficulty, imbalance in the muscles, and psychological problems **(Obayes et al., 2021).**

1.2.2.2 Etiology

There are three theories that attempt to explain the aetiology of prolonged non-nutritive sucking habits:

1. **Insufficient satisfaction of sucking needs during childhood (as a result of insufficient breastfeeding).**

   Maternal nipple deprivation may be followed by apparent emotional confusion andfrustration, leading to an inappropriate replacement of the nipple by a digit or pacifier.Breathing, swallowing, mastication and speech articulation are developed during breastfeeding and any imbalance in these systems might lead to unsatisfied suckingneeds.

2. **Learned behavior**

The learned behavior theory describes digit sucking as innate behavior that becomes a habit, and, because thumb-sucking is soothing to the infant, the habit persists in some children when they are bored, tired or anxious.

The innate nature of sucking is supported by ultrasound pictures of fetuses indulging in the habit in-utero. Further support of the learned behavior theory may be seen in a study which found that the subjects with finger-sucking siblings were more likely to also demonstrate persistent finger-sucking.

3. Emotional theory

The emotional theory is Freudian-based and relates finger-sucking to the oral phase of child development. Should the habit continue beyond the oral phase of child development. Digit/finger sucking at a later stage is usually considered a sign of regression, and fixation and regression are the signs of emotional disturbance. Support for the emotional theory may be found in studies that found a greater incidence of thumb-sucking in children who, as infants, had been left to fall asleep alone, compared with infants who enjoyed the presence of a parent at the onset of sleep. In support of these findings, the results of a recent study suggest that solitary sleeping in infants is a predictor of insecure attachment.

1.2.2.3 Management:

Breastfeeding for six months or more has been reported to protect against the development of pacifier sucking habits. Breastfeeding and bottle-feeding also involve different orofacial muscles which possibly have different effects on the harmonic growth of the maxilla and dental arches.

Various modalities have been reported for treating a thumb sucking habit. These include:

• Time-out, in which a reinforcer is removed whenever thumb-sucking occurs. For example, a mother could stop reading a story whenever thumb-sucking occurred. When the child removed his/her thumb from their mouth, the mother immediately resumed reading the story.

• Positive reinforcement, such as verbally praising the absence of sucking or placing reward stickers on a calendar.

• Negative or aversion therapies, such as applying a foul-tasting oil on thumbs. A sock, adhesive strip, splint, or glove can be used to remind the child not to put the thumb or fingers in the mouth.

• Competing response therapy, such as squeezing an object whenever the child feels the impulse to thumb or finger-suck.

• Dental appliances.

A dental appliance is one such modality. Numerous dental appliances have historically been used to treat the thumb-sucking habit.

Crib appliance:

All of the studies that assessed the effectiveness of the crib therapy demonstrated that it significantly increased the overbite and overbite correction was still present after 3 and 5 years of follow-up. **Villa and Cisneros (1997)** observed significant improvement of upper and lower incisors inclination. **Ferreira (2004)** and **Cozza *etal*. (2006)** also observed a significant alteration of the inclination of the incisors long axis, in addition to palatine/lingual horizontal movements. Furthermore, both studies reported upper and lower incisors significant extrusion. **Torres (2008)** observed that fixed crib is significantly more effective than the removable appliance in the correction of AOB.As for the skeletal effects, **Giuntini *et al.* (2008)** reported that the fixed crib therapyproduced greater downward rotation of the palatal plane when compared with the removable crib. In addition, there was a significant reduction in the palatal plane– mandibular plane angle in the individuals that used the fixed appliance. Since removable cribs do not appear to be more effective than fixed ones, it is recommended the preferable use of fixed designs rather than

removable ones. Unless patients demonstrate poor oral hygiene or increased likelihood to developcaries lesions, it is generally preferable not to depend on patients' cooperation. **(Feres et al., 2017)**

- Spur appliance:

The only study that evaluated the effectiveness of spurs showed that this appliance might be effective for the correction of AOB malocclusion. The significant dental effects related to the use of spurs also included reduction of the inclination of upper incisors and extrusion of upper and lower incisors. **(Cassis, 2009)**

• An awareness enhancement device (AED), which produces a tone each time an individual raises a hand to the head.

Thumb-sucking occurs most frequently when the child is alone. Therefore, a modality that does not require close monitoring of the child may be more successful in treating the habit.

The habit may intensify if the child is criticized, nagged or threatened. The parent should therefore be patient and empathetic. Discretion should be used by both the clinician and the parent as to when/whether treatment for thumb-sucking should be pursued. Caution should be exercised in cases when, for example, a child older than four experiences the loss of a family member or pet, or is subject to fear or pain, thumb sucking may then become a temporary coping strategy. **(Reddy et al., 2019).**

Myobrace for kids™ is a system of three-phase devices designed to correctbad oral habits when treating jaw development problems (figure 1.1). It is moreeffective after the permanent front teeth have erupted and before the eruption of theother permanentteeth. K1 = it promotes the correction of habits and is made of flexible silicone for easy adaptation to any form of dental arch and malocclusion. It

offers great retentiondue to its material to be used at night. K2 = it provides dental arch development andcorrection of habits. It has Dynamicore with Frankel grid that helps in the enlargement and development of the jaw. It is ideal for children aged between 5 and10 years. K3 = it concentrates on completing the correction of the habit, the final alignment of the teeth and the retention with its firmer polyurethane construction. The hollow tongue positioner facilitates the final position of the tongue directly in the correct location. It also acts as a retainer until the permanent dentition erupts. K3can be combined with the transition to T3 and T4 for final dental alignment in developing permanent dentition **(Busquet et al., 2021)**

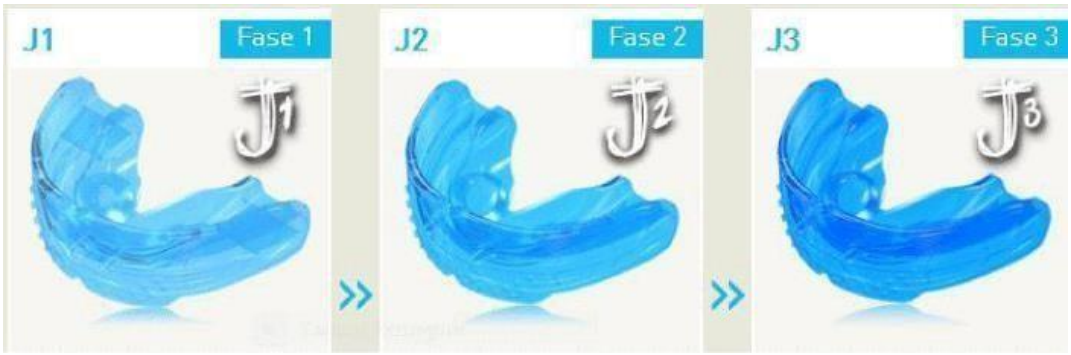

Figure 1.1 Myobrace for primary dentition and the three phases **(Busquet et al., 2021)**

1.2.3 Tongue thrust

1.2.3.1. Etiology

Tongue thrusting habit can be caused by improper bottle-feeding and is usually accompanied by other bad habits such as thumb sucking, lip biting, and nail biting. If this habit occurs continuously, it will cause an open bite and incomplete overbite as well as the position of tongue tip more anterior than normal.

1.2.3.2. Types of tongue thrust (Tarvade et al, 2015)

1. Physiologic: This comprises of the normal tonguethrust swallow of infancy
2. Habitual: The tongue thrust swallow is present as ahabit even after the correction of the malocclusion
3. Functional: When the tongue thrust mechanism is an adaptive behavior developed to achieve an oral seal, itcan be grouped as functional
4. Anatomic tongue thrust: Persons having enlargedtongue can have an anterior tongue posture.

1.2.3.3. Manifestation

It manifests in oral cavity as: **(Joelijanto, 2012)**

1.2.3.1.1 the patient has over jet or open bite

1.2.3.1.2 patients speak unclearly

1.2.3.1.3 the patient breathes through the mouth.

1.2.3.1.4 lip licking before ingestion

1.2.3.1.5 face grinning when swallowing

1.2.3.4. Management

Management of tongue thrust involves a multidisciplinary approach, including speech therapy, dental treatment, and behavior modification. Speech therapy can help retrain the tongue to rest in the proper position, while dental treatment can correct any dental problems caused by the condition. Behavior modification techniques may include exercises to strengthen the muscles of the mouth and face and retraining the swallowing process. According to a study published in the Journal of Orofacial Orthopedics, early detection and intervention of tongue thrust can prevent the need for extensive orthodontic treatment later in life **(Möhler et al., 2016)**

1.2.4. Nail biting

1.2.4.1. Definition

Nail biting is “putting one or more fingers in the mouth and biting on nail with

teeth".

1.2.4.2. Etiology

Etiology of nail biting can be due to stress, imitation of family members, hereditary, the transfer from the habit of finger sucking, and fingernail is not neat. In some cases, these habits can cause attrition in the lower anterior teeth **(Joelijanto, 2012)**

Nail biting may be associated with multiple psychological factors, including emotional disturbance, anxiety disorders, obsessive–compulsive disorder (OCD).

1.2.4.3. Epidemiology

Basra et al. (2016) found that nail biting was commonly noticed in older sample itwas around 4.3%. (9 to 11 years).

1.2.4.4. Effects

There is an increased prevalence of the presence of E. coli and total Enterobacteriaceae in the saliva of participants with nail-biting habits; hence,their contamination risk might be high. **(Okawara A et al., 2022).** Nail biting force could be transferred to the root of the tooth, causing root resorption, alveolar bone destruction, malocclusion, and temporomandibular joint problems **(Almutairi, 2021).**

1.2.4.5. Management

Coating nails with unpleasant materials or covering them is tried by many parents, but it is usually ineffective. Others should not blame children with NB habit and increase their disappointments, instead they should encourage them, and give them support and confidence. The management and treatment of child with NB behavior will not happen in a few sessions, it is a long process.

Nail biting occurs more often in boredom or frustration than in contingent or non-contingent attention in undergraduate students. Environmental factors are reasons for NB in some people. However, the environmental determinants of NB may differ in different people. Therefore, functional analysis of NB is a method for assessing the nature of precedent and consequences of NB. It is effective and its effects are stable over time **(Ghanizadeh, 2011).**

1.2.5. Bruxism

1.2.5.1 Definition

Bruxism is defined as an unconscious oral habit of rhythmical, unfunctional clenching, grinding and making chewy sounds with the teeth while making movements that are not part of the masticatory function and that lead to occlusal trauma **(Demjaha, 2019).**

1.2.5.2 Epidemiology

Bruxism This is a bad habit of scraping upper jaw and lower jaw teeth, it canarise at childhood as well as adults. Usually this is done at the time of sleep at night and they don't realize that they have a bad habit. Bruxism often occurs in women compared to men. Bruxism can cause abrasion (wear out) of teeth surface in the upper jaw and lower jaw, both in deciduous teeth and permanent teeth.iterature frequently report females to be more prone to oralparafunctional activity and the prevalence of bruxism is reported to decrease with aging **(Almutairi, 2021),** it was mostfrequent habit among children **(Basra et al., 2016).**

1.2.5.3 Etiology

One of the most frequent parafunctional habits is bruxism, also known as tooth

grinding. Having anxiety, worry, emotional tension, and schizophrenia was associatedwith wake-time teeth clenching. It was found that physical abuse was significantly associated with biting habits,but not bruxism **(Okawara A et al., 2022).** Bruxism was identified in only 47% of the participants **(Maluly et al, 2013).** Parents who do not abuse their children are more likely to be concerned regarding the health and behavior of their children compared to parents who abuse their children. Therefore, bruxism could have been over reported among children who were not subjected to abuse, which mayexplain the null association between child abuse and bruxism **(Okawara A et al., 2022).**

1.2.5.4 Effects

Enamel layers (outer layer of the teeth) that protects the surface of the toothis missing, so it makes pain in the teeth. When this habit was continued and prolonged, can cause damage to the periodontal tissue (tissue that supports teeth), malocclusion, teeth fracture due to excessive pressure, and abnormalitiesin the Temporo-Mandibular Joint (joints that connect the lower jaw and head bones). For the treatment of these cases, the dentist will make certain tools that are specially designed and built-in accordance with the arrangement of patients'teeth, these tools are called night guard and used while sleeping at night. This tool will form the boundary between the teeth upper jaw and lower jaw so there will be pitted against each other. Using this tool will prevent further damage on teeth and assist patients in stopping bad habits. When the main cause of bruxismis stressed out, then doing a consultation with a psychologist is the one thing that can help in eliminating these bad habits **(Joelijanto, 2012).**

Table 1.1. Age wise prevalence of deleterious oral habits. ***(Basra AS et al., 2016)***

age	no	bruxism		tongue thrust		digit sucking		mouth breathing		nail biting		lip biting	
		no	%	no	%	no	%	no	%	no	%	no	%
7 to 9	120	31	7	8	1.8	16	3.6	28	6.3	7	1.6	5	1.1
9 to 11	156	21	4,7	15	3.4	12	2.7	16	3.6	10	2.2	11	2.4
11 to 13	168	12	2.7	9	2	13	2.9	12	2.7	19	4.3	21	4.7

Children who had suffered multiple victimizations, including various types of abuse, had more trauma symptoms than those who had only suffered the same type of victimization repeatedly. Multiple victimizations have several ill effects on behaviors regarding health, including substance use disorders, excessive eating, and hypersexuality **(Okawara A et al., 2022).**

1.2.5.5 Management

Management of bruxism involves a multidisciplinary approach, including dental treatment, behavioral modification, and pharmacological interventions. Dental treatment may include the use of splints or mouthguards to protect the teeth from further damage. Behavioral modification techniques may include relaxation exercises and stress management to reduce the frequency and intensity of teeth grinding. Pharmacological interventions may include the use of muscle relaxants or antidepressants to reduce muscle tension and anxiety. According to a review published in the Journal of Oral Rehabilitation, the most effective treatment for bruxism is a combination of dental treatment and behavioral modification techniques **(Manfredini & Lobbezoo, 2010).** It is important to note that the success of treatment depends on the severity and underlying cause of the condition.

2. Chapter Two: Discussion

Dentists' responsibilities include not just tooth restoration and modification of dento-alveolar alterations, but also the prevention and treatment of problems induced by oral habits. The majority of parents who spend time with their children are unaware of the dangerous of bad oral habits and their negative consequences on orofacial structure including malocclusion such as asymmetrical open bite, unilateral posterior crossbite, a diastema , temporomandibular joint, deep narrow palatal vault, proclination of upper incisors with retroclination of lower incisor causing open bite, in addition to their effect on the facial appearance leading to straight profile with increase lower facial height. Dentists should enlighten parents on the various forms of dental habits, their etiology, particularly the role of stress in their development, and how to manage and treat habits at home. The clinician's awareness of child psychology, as well as his or her knowledge of behavior control approaches, is critical to the effectiveness of the dental therapy. Throughouttherapy, it should be obvious to the patient, parents, or guardians that using biomechanical orthodontic resources alone will not result in the successful cessation of the digit sucking behavior; the patient must also demonstrate a willingness to discontinue the habit. With the success of the dental treatment, the child's unfavorable attitude about dental treatment will be changed, and a positive dental attitude will be instilled in the child for the future. Intervention is usually not required before the eruption of the incisors and during the early years of a child's life because the habit is deemed normal and will go away on its own, but appropriate management should be approached with orthodontic appliances when the habit persistence beyond the expected age was noticed mostly beyond 6 years of age during the mixed dentition period. **(Al-Bitar et al, 2015)**

3. Chapter Three: Conclusion and Suggestions

3.1 Conclusions

- Bad oral habits could be the cause of malocclusion and dental caries.
- Bad oral habits and associated malocclusion in both primary and permanent dentition are affected by anxiety, and increase in presence of child abuse.
- Orthodontic intervention for oral habit treatment is usually not required beforethe eruption of the incisors and during the early years of a child's life becausethe habit is deemed normal and will go away on its own, but if the habit persistence beyond the expected age was noticed mostly beyond 6 years of age during the mixed dentition period and associated with malocclusion then intervention becomes necessary.
- Orthodontic treatment alone is not enough to eliminate the habit and it must include psychological consultation with the patient about the importance of the cessation of the habit.
- For successful treatment, the patient must demonstrate a willingness to stop the habit.

3.2 Suggestions

- Education programs for preschool children, parents, teachers and pediatricians are necessary. Such programs are essential preventive tools for early management of malocclusion resulting from bad oral habits.

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