

Prevalence of dental caries in children of 6 to 15 years of age with disorder due to deficit of attention and hyperactivity of the Center of Multiple Attention # 3 and the USAER # 55 of the city of San Francisco de Campeche

Prevalencia de caries dental en infantes de 6 a 15 años de edad con trastorno de déficit de atención e hiperactividad en el Centro de Atención Múltiple # 3 y el Usaer # 55 de la Ciudad de San Francisco de Campeche

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Abstract

Children are the most vulnerable population for dental caries, an endemic disease that needs prompt attention due to the repercussions on the general health of the subject; This condition that begins with the enamel affection. This study explored this condition in children with ADHD, which is attention deficit hyperactivity disorder (ADHD). Here is born the following question: What is the prevalence of dental caries in children from 6 to 15 years of age with attention deficit hyperactivity disorder (ADHD) who come to the center of attention (CAM) multiple # 3 and USAER # 55 ADHD of the city of San Francisco de Campeche 2015?. The results of this research would be a baseline and a valid reference in the implementation of improving and promoting the activities of prevention, early diagnosis, treatment, rehabilitation of oral health of children with ADHD. In the course of this research, we worked with a total population of 135 children with attention deficit hyperactivity disorder. In this population the average age was 9.4 years, SD = 2.6 a range of 6 to 15 years the prevalence of caries was 72.3%.

Dental Caries, Tooth, Prevalence

Resumen

Los niños son la población más vulnerable para caries dental, enfermedad endémica que necesita pronta atención debido a las repercusiones en la salud general del sujeto; en esta investigación se exploró este padecimiento en niños con TDAH que es el trastorno por déficit de atención e hiperactividad adquirida. El objetivo general de este estudio plantea el siguiente cuestionamiento: ¿Cuál es la prevalencia de la caries dental en niños de 6 a 15 años de edad con el trastorno por déficit de atención e hiperactividad (TDAH) que acuden al centro de atención (C.A.M) múltiple # 3 y USAER # 55 TDAH de la ciudad de San Francisco de Campeche 2015? Los resultados de esta investigación serían una línea base y un referente válido en la implementación de mejorar e impulsar las actividades de prevención, diagnóstico precoz, tratamiento, rehabilitación de la salud bucal de los niños con TDAH. Metodología: En el transcurso de esta investigación se trabajó con una población total de 135 niños que presentan trastorno por déficit de atención e hiperactividad. Resultados: En esta población la edad media fue de 9.4 años, DE =2.6 un rango de 6 a 15 años La prevalencia de caries fue de 72.3%.

Caries Dental, Dientes, Prevalencia

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1 Introduction

Children are the most vulnerable population for dental caries, an endemic disease that needs prompt attention due to the repercussions on the general health of the subject; This condition begins with the enamel affection, continues to the dentine and immediately damages the vasculo-nervous package that nourishes the tooth and can cause severe damage to the stomatognathic system and consequently throughout the body's economy.

Given this pathophysiological development, permanent vigilance of the infant population is necessary to minimize the damage. This study explored this condition in children with ADHD, which is attention deficit hyperactivity disorder (ADHD). Systemic alteration characterized by being a neurological disorder manifested by hyperactivity, impulsivity, inattention or lack of concentration, suitable for learning and behavior for the child's degree of development, present emotional and behavioral difficulties.

The scientific reports show that being the behavioral alterations that predominate in these children, the attitude of the parents should be according to the condition, a fact that is not observed frequently and the dental care of this population demands from the professional a management specific behavior that allows good results.

This study is the first performed in this child population with the aforementioned condition, observing a very high prevalence of caries, especially in boys. There was a greater affection of the permanent dentition in those between six and ten years of age in both boys and girls; the fact of having a high number of decayed first molars stands out.

In developing countries such as ours, the situation of high prevalence of caries in children without ADHD and responding to the therapeutic problem entails very high costs. The oral attention generated by caries can start very early in any child and therefore in children with this syndrome and in both cases, but especially in the second specialized attention is required due to the difficulty of behavioral management in the odontologic consultation.

The dental morbidity and mortality that caries can generate in children has been demonstrated. Authors from all continents have addressed the study of this disease considering variables of various kinds: environmental, clinical, sociodemographic, etc.

For this reason, the actions undertaken in the field of health research have as a priority task the search for determinants in pathological processes. In the case of children with ADHD the situation worsens as they present other variables that can intervene in the process of caries such as behavioral and oral environment; they permanently ingest highly sweetened syrups that make the oral environment more inhospitable; Adding carelessness in hygiene measures and diet.

The results discharged here will serve as a baseline for the exploration of variables mentioned here.

1.1 Problem Statement

The diagnosis of early childhood caries should be a priority in all health systems; oral care in children is very required, a reality that emanates from the high prevalence and severity that this disease has in children, a population vulnerable to this condition.

The need that derives from the high prevalence of this disease is little covered in the treatment and rehabilitation, both in quality and quantity. This situation is aggravated due to the fact that in most of the children, behavioral management in dental care is one of the greatest obstacles. Given this premise, it is relevant to have information that addresses the situation of dental caries in children with Attention Deficit Hyperactivity Disorder (ADHD); the information obtained will serve as an argument to stimulate parents of the importance of early detection of dental caries in these children. This research work addresses attention deficit hyperactivity disorder (ADHD) that can affect the behavior, learning and development of the infant; these children have brief attention intervals and are very active or hyperactive, characteristics that will impact the oral rehabilitation of these patients.

In developed countries there are reports of the prevalence of dental caries in children with systemic alterations of various kinds. Dental caries, and oral disorders of another nature are unique problems in the dental care of patients with ADHD. The lack of early attention, together with the chronic nature of oral diseases, complicates other behavioral or developmental problems, the panorama that presents itself with more edges in developing countries such as Mexico. Campeche is an entity in which no information has been reported in order to make decisions regarding preventive measures, early diagnosis and treatment of these patients that constitute a challenge in care due to the nature of their systemic disease.

From here arise the following questions:

What is the prevalence of dental caries in children from 6 to 15 years of age with attention deficit hyperactivity disorder (ADHD) who come to the multiple care center (CAM) # 3 and USAER # 55 ADHD in the city of San Francisco de Campeche 2015?

What are the risk indicators for dental caries in patients who attended clinic 1 of the Faculty of Dentistry of the Autonomous University of Campeche

1.2 Justification

It is known that the balanced development of the stomatognathic system is established from early ages and since there are multiple alterations that can affect it, it is necessary to recognize the oral characteristics; of infants that guarantee adequate oral physiology in adulthood; since oral diseases are considered a public health problem due to their high degree of frequency, such as cavities; to date there are no data that demonstrate the oral health status of children with Attention Deficit Hyperactivity Disorder (ADHD), and if there is any difference with school children who do not have it.

The competent authorities have reported that many children have Attention Deficit Hyperactivity Disorder, this disorder is basically characterized by inattention or lack of concentration, hyperactivity, impulsivity.

Which occurs between 5 and 17% of children in schools in Mexico and other countries; given these characteristics are children who need permanent medication and behavioral decisions of parents according to the condition, factors that have an influence on oral health. The present investigation is justified from two perspectives: the first being a study that will give its contribution to oral health to a selected population and the second because of the importance in the social approach. In fact throughout this investigation will be studied the caries that is a product of the cariogenic diet, drugs and difficulty for a correct oral hygiene.

It is intended to evaluate a group of individuals, which socially has a considerable impact, not only on the correct development and well-being of the affected person, but also on the relatives; as a result of the responsibility and personalized care required by children with ADHD. For this reason this study is relevant, since it presents a series of dental peculiarities that require a specific management, as is the case of: application of psychological techniques, physical restraint and pharmacological therapy. The results of this research would be a baseline and a valid reference in the implementation of improving and promoting the activities of prevention, early diagnosis, treatment, rehabilitation of oral health of children with ADHD.

2 Theoretical framework

Dental caries has been affecting humanity since prehistory, it is a disease with a multifactorial etiology, influenced by various cultural, social and technological factors of modern society, with large variations in prevalence and incidence, difficult to explain, characterized by a large clinical polymorphism.

The World Health Organization (WHO) defines dental caries as a localized pathological process, of external origin, that begins after the eruption, determined by a softening of the hard tissue of the tooth and evolves towards the formation of a cavity. Dental caries is a multifactorial and infectious chronic dynamic process or disease that occurs in the tooth structure producing a progressive deterioration. It starts in the periphery of the enamel or root cement, advancing centripetally towards the dentine until the pulp affection, reaching the total destruction of the tooth.

The etiology of caries has been attributed to several factors that include aspects from the social, cultural, economic, political, ethnic, psychological and biological points of view. To understand the etiology more clearly, we can consider that there is a susceptible host (child-teeth); a causative agent such as microorganisms present in the host; and an environment with the necessary conditions.

The anatomical and morphological characteristics of the temporal dentition give rise to any caries process initiated in a temporary molar having a rapid evolution producing the early destruction of the enamel and the dentin, and the affection of the pulpal tissue. The repercussions in the child, have great relevance because it alters the functions of chewing, phonation, aesthetics and preservation of the stomatognathic system and interfere with distance causing pathology in heart, kidneys, joints and other organs.

At present, its appearance is associated with socio-cultural, economic, environmental and behavioral factors. It affects between 60% and 90% of the school population according to WHO. The approach of the presence of dental caries in children with attention deficit is important since they tend to the loss of a greater number of teeth and decay than normal children. Probably due to the fact that attention deficit and hyperactivity make it very difficult for them to have a discipline regarding the food and consumption of junk food, as well as proper oral hygiene.

On the other hand, it may also be due to the possible side effects of the drugs, including xerostomia. ADHD stands for Attention Deficit Hyperactivity Disorder. It is a neurobiological disorder originating in childhood that involves a pattern of attention deficit, hyperactivity and / or impulsivity, and that is often associated with other comorbid disorders.

Food and habits have an influence on growth and development.

In the case of ADHD patients, their eating styles are not correct and often dysfunctional: lack of appetite, food phobias, alterations in mealtimes, nocturnal feeding, rejection of certain types of food, preference only for attractive foods, etc.

These dysfunctions are caused in part by drugs for the treatment of ADHD, which translate into malnutrition patterns, growth problems, physical and mental performance, sleep disturbances, fatigue and oral health. Children with attention deficit hyperactivity disorder tend to have a higher number of tooth loss and decay than normal children.

Probably due to poor oral hygiene and high consumption of sugary foods. To correct this situation it is essential to establish good oral hygiene habits, regular visits to the pediatric dentist to establish efficient preventive measures and designed in a personalized way, control of the diet.

The help of trained professionals to attend them is essential, since they are often classified as "children problems" or "spoiled". It is necessary to inform the pediatric dentist of the diagnosis, medications and specific problems so that together you can find the best way to help the child.

As time has gone by, the percentages of people suffering from this condition have increased, while the age at which they can be diagnosed has been decreasing. Although a few years ago the prevalence of ADHD was estimated at 4% -6%, the latest epidemiological studies give figures that are around 20% and even the most prudent ones place the prevalence above 10%.

The symptoms of attention deficit / hyperactivity disorder (ADHD) have a great impact on the development of the individual and interfere in their social, emotional and cognitive functioning, and cause an important morbidity and dysfunction not only in the child, but also in the group of classmates and in your family.

Attention Deficit Hyperactivity Disorder (ADHD) has 3 main symptoms: Lack of attention

- Hiperactivity- Impulsivity

Hyperactivity is probably one of the easiest symptoms to recognize, for its evidence and for being the best known by the general public. The person suffering from hyperactivity is characterized because:

- It moves at times when it is not appropriate
- It is hard to remain still when necessary
- Speech in excess
- Noises constantly, even in quiet activities
- Has difficulty relaxing
- Change activity without finishing any
- There is a lack of consistency

The symptoms of lack of attention are probably the most difficult to perceive at childhood ages. The person suffering from attention deficit is characterized because:

- Has difficulty maintaining attention for a long time
- Does not pay attention to details
- Has difficulty completing tasks
- He has difficulty listening, following orders and instructions
- He is disorganized in his tasks and activities
- Usually lose or forget objects
- Easily distracted
- It does not conclude what starts
- Avoid activities that require a sustained level of attention

Change conversation frequently
He has difficulty following the rules or details of the games. Impulsivity is probably the least frequent symptom of the three core symptoms of ADHD. The person suffering from impulsivity is characterized because:

- He is impatient
- He has problems waiting for his turn
- Do not think before acting
- Constantly interrupting others
- He has arrogant answers: spontaneous and dominant
- Tends to "touch" everything

In order to be able to consider a possible diagnosis of ADHD, the following criteria must be met marked by the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, fifth edition).

- He manifests these behaviors or some of them disproportionately compared with other children of his age and with respect to his degree of development.
- He is present from an early age (before the age of 12).

- Affects in at least two different environments of the child's life: school, social and / or family.
- Significantly impairs their quality of life.
- It is not caused by a medical, toxic or other psychiatric problem.

Three types of ADHD have been established according to the level of symptoms experienced by the individual. Description of the three types of ADHD:

1. Predominantly inattentive. It is difficult for the individual to organize or finish a task, pay attention to details, or follow instructions or a conversation. The affected person is easily distracted or forget the details of the daily routines.
2. Predominantly hyperactive-impulsive. The person is restless and talks a lot. It is difficult to remain calm for a long time (to eat or to do a job).
3. Combined. The affected person experiences the symptoms of the previous types equally.

The cause of ADHD (Attention Deficit Hyperactivity Disorder) is still uncertain today. It is a heterogeneous and complex neurobiological disorder, which can not be explained by a single cause, but by a series of genetic conditions together with other environmental factors and psychosocial factors; although it is not considered critical.

Hence the importance of having a qualified healthcare professional to perform the diagnosis that has extensive experience in the diagnosis of Attention Deficit Hyperactivity Disorder. The diagnosis of this disorder must be based on a thorough assessment to exclude other possible causes of the child's difficulties, including information about his family, his teachers and an evaluation by health professionals in different areas: child psychiatrists, child psychologists, pediatricians, neuropsychiatrists, neuropsychologists, etc.

The evaluation of this complex disorder must be done from a multiprofessional perspective that addresses both the psychological, educational and medical evaluation.

There is no single test that alone allows an exclusive and reliable diagnosis. To establish the final diagnostic judgment it is necessary to gather information from the different sources that surround and intervene in the child and make systematic observations of their behaviors and the retrospective assessment of their behavior from the earliest ages.

The ADHD evaluation must include:

1. A complete medical examination to evaluate the general health of the child and discard problems of visual, auditory, anemic or lack of vital components for their health.
2. A professional psychological evaluation to have a clear idea of the emotional condition of the child, including tests of intellectual capacity and cognitive development.
3. A family assessment for which behavioral scales are used.
4. A school evaluation that includes the child's academic and behavioral history in the classroom.
5. The encephalogram (EEG) would only be indicated in the presence of focal signs or when there is a clinical suspicion of epilepsy or degenerative disorders.
6. The diagnosis will be based on compliance with DSM-V criteria, which are the diagnostic criteria established by the American Academy of Psychiatry (1994) or the ICD-10 (1992) criteria recognized and established by the WHO.

The DSM (Diagnostic and Statistical Manual of Mental Disorders) is the diagnostic and statistical manual of mental disorders. It is the system of classification of mental disorders most used worldwide, providing descriptions, symptoms and other useful criteria for the diagnosis of mental disorders.

It is reviewed periodically, according to the investigations, studies and discoveries made. The CIE is the International Classification of Diseases (ICD: International Statistical Classification of Diseases and Related Health Problems) conducted by the World Health Organization. The treatment of ADHD should be multimodal and individualized, taking into account the patient and his / her family.

The objective of multimodal treatment is to reduce symptoms while reducing the complications derived from the disorder and the negative impact it can have on the lives of patients and their environment.¹³ This multimodal treatment of ADHD involves three approaches:

- Pharmacotherapy
- Cognitive-behavioral treatment
- Psychoeducational treatment (parents and teachers).

Broadbent JM and performed in 2009 col. a study 128 pairs of cases and controls in children with and without ADHD from Otago, New Zealand defining as a case the child who had 5 or more DMFT and control to the one who had less than 5 DMFT. The analysis showed that children with ADHD were almost 12 times more likely to have a higher DMFT than children who did not. (OR = 11.98, 95% CI 1.13-91.8). In a study of 447 children conducted in 2009, in deciduous dentition in the metropolitan area of Aburra, Saldarriaga-Alexandra et al. They report a prevalence of dental caries of 74.7% with an average and a 7.3 ± 9.1 .

When studying the affected surfaces, it was concluded that the prevalence of at least one affected surface per tooth was 73.4%.¹⁸ Prakash Chandra, Latha Anandakrishna, and Ray Prayas in 2009 did a study using a total of 80 children, including 40 ADHD and 40 children without ADHD were included in the study.

A dental visual examination for dental caries was carried out and the state of oral hygiene of these children was determined. As a result, children with ADHD had a significantly higher score, the average value of caries compared with that of children without ADHD. Burns, Heidi A. Reported in a study in 2010, they did tests that showed that children with ADHD have significantly more enamel caries in the permanent and temporary dentition and a significantly higher prevalence of the total caries experience compared to the controls. In 2010 Bruce A. Dye et al. In a study conducted in the UAE in two groups of children: one with low socioeconomic status and the other group with high socioeconomic status, from 2 to 8 years of age found a prevalence of caries, for the first group from 45 to 53% and for the second group it was from 23 to 31%.

In addition, a group of 2 to 5 years of high socioeconomic status was examined, finding a prevalence of 13 to 21%. They observed that decay in permanent dentition declines in children of high socioeconomic status; there is an increase from 8 to 22% in poor non-Hispanic children between 6 and 8 years of age; and among Mexican-American children between 9 and 11 years old it increased from 18 to 55%. Ceyhan Altun et al in 2010 reported in 136 subjects with disabilities that the average CPOD was 1.58 ± 2.72 and that of ceod was 1.18 ± 2.11 . The ceod and DMFT showed statistically significant differences by age ($p = 0.05$). The presence or absence of dentobacterial plaque was studied through the Sliness and Loe Index, observing that as the disability worsens, the percentage of teeth with dentobacterial plaque increases.

In the 2010 AE Sanders et al. They conducted a study in South Australia in 1058 children who presented some deficiency at birth, according to the Apgar Registry and found a caries prevalence of 40.1%. The regression analysis showed that as more disorders presented the child at birth, according to this registry, more likely to decay in the primary dentition.

In 2011 Blomqvist perform a study in Stockholm in 555 children with and without TDH, finding that the DMFT in children with ADHD and without the presence of this disorder shows differences in terms of averages: the former had 2.8 ± 4.0 and the latter: 2.2 ± 3.2 . Incipient and frank caries were observed in both groups without showing statistically significant differences for the cavity in both groups: OR = (1.26, 95% CI 0.76-2.09) and for the incipient lesions OR = (1.04, 95% CI 0.59-1.82). 38% of the children with ADHD were free of caries and in the control group it was 48% .24In 2011 Ariela Hidas and co. conducted a study in 132 subjects, children, youth and young adults with and without ADHD, dividing it into 3 groups: group 1 did not receive medication, group 2 received medication at least one month before the study and group 3, healthy subjects.

There were no statistically significant differences in the averages of CPOD / ceod ($p = 0.08$) between the groups; A higher average of decayed teeth is found in group 2 compared to 1 and to control, without statistically significant differences ($p = 0.06$).

The authors denote a higher plaque index in children without medication than with medication with statistically significant differences ($p = 0.05$). Ghada SM Al-Bluwi report that the prevalence of caries for children of 5 years was 72.9% and for those of 6 years 80%, the average of ceod = 4 for those of 5 years and ceod = 4.5 for those of 6 years. In 2011, the prevalence of caries in children aged 5 and 6 years was 31.1%.

In 2011 Zaror Sánchez et al. studied 301 Chilean children from 2 to 8 years of age who had a prevalence of ITC (early childhood caries) per tooth of 70% and that of ITC by area of 52%. Average of ceod = 3. 28% of the children of 2 years presented incipient lesions.

The multivariate mathematical model for two-year-old children presents the following variables with statistical significance: breastfeeding (OR 2.9, 95% CI 1.4-6.0, $p = 0.00$); no bottle at night (OR = 2.6, ic 95% 1.2-5.7 $p = 0.01$). 27In 2012 Ramírez Puerta, Blanca Susana et al. In Colombia they reported a caries prevalence in permanent teeth of 60.4%, the average of classic and modified CPOD was 1.6 ± 1.7 and 1.7 ± 1.8 respectively. The significant caries index was 3.7 ± 1.2 .

In Brazil in 2012, Paula Flavia Méndez Thaurino et al. carried out a study in 185 children from 6 to 12 years where a prevalence of caries was found in children of 6 years of 87.5% with an average of ceod = 5.2 and for permanent dentition was 74.4% with a DMFT = 2.8.

Lida García Vega et al. in 2012 they studied a sample of 108 schoolchildren of 6 and 11 years of age, to determine the prevalence of caries that was 89.8% the DMFT index was 1.7 and the CEOD 3.1% studied the frequency of brushing that was between one and two times day, the consumption of cariogenic foods was between moderate and high in 85% of children.

In 2013 Suzuki Padilla Bertha et al. in 2013 in San Luis Potosí, Mexico, a study was conducted on 595 children between 6 and 10 years of age to analyze the risk of caries and assess the frequency of caries in 12 months. At the beginning they observed an average of DMFT of 0.8, with an increase with age, children of 6 years showed an increase of 0.09 and those of ten years the increase was 0.9 with a statistically significant difference of $p < 0.05$.

Low-risk children decreased their risk with increasing age and high-risk children with increasing age increased their risk, showing statistically significant differences $p < 0.05$. Halcrow S.E. And col. in 2013 in a study carried out on children under 15 in Thailand and Cambodia. The prevalence of caries in the most affected tooth in the first dentition of 5.5% and in the permanent dentition was 9.9%.

A study done in 2013 in Carabobo, Cuba, Reyes et al. found in children of 12 years, a caries prevalence of 68%, highlighting that the first molars and especially the lower ones were very affected.

In 2013 Nasco Hidal et al carried out a study in the Plaza de la Revolución Municipality, Cuba, about the prevalence of incipient lesions to dental caries and its relationship with caries risk factors in children from 6 to 11 years of age.

A prevalence of incipient lesions was found in 22.5% of the children. Of these 74.6% had poor oral hygiene and of them 52.7% incipient lesions, children with CPOD or ceod from 0 to 2 also had incipient lesions.

In Peru in 2013 Cárdenas Flores et al. They reported in a caries prevalence study in a sample of 231 children from 5 to 3 years of age, that this was 65.8%, found a statistically significant association of (OR = 3.01), between dental caries and inadequate oral hygiene. F. Vargas-Ferreira et al. In Mexico in 2014 they report that in structural enamel defects of hypoplasia and the prevalence of dental caries in children is 32.4% (OR = 2.79, 95% CI: 1.05, 6.51). 36 Nelly Molina Frechero, Denisse Durán Merino, Enrique Castañeda Castaneira and Adriana Juárez López. They made a study where the study population consisted of children of both genders; 69.5% presented caries, and the DMFT was 3.52 ± 3.7 ($c = 3.37 \pm 3.5$, $p = 0$, $or = 0.11 \pm 0.51$). 98.2% of the children with caries presented poor oral hygiene with a DMFT of 4.91 (confidence interval [IC95%: 3.99-5.84), which in children with good hygiene was 0.17 (95% CI: -0.18-0.51).

3 Methodology

At the beginning of this work the authorization of the director of special education was requested to be able to carry out the study in the multiple attention center (C.A.M) # 3 and the USAER # 55 ADHD in the city of San Francisco de Campeche.

The duration of this study was from July to October 2015. Children who met the inclusion criteria were selected. An informed consent letter was given to their parents (Appendix 1) where it was explained that this study will not harm their child physically or psychologically. He was given the objective of the study and the impact it would have on his oral health. A folio was assigned to each child in a file attached to the odontogram, with a sequential number. The data of the sociodemographic variables were taken from the school documentation. The clinical examination was carried out by a standardized examiner in the use of the ceod and CPOD indices (Kappa = .90); was performed in the school, placing the patient in the chair in a position of 90 °, the operator in front, with natural light using plane mirror # 4, scanner # 23.

We proceeded to perform a revision of the oral cavity of each child starting in the upper right quadrant and ending in the lower quadrant on the same side. The researcher put on gloves and face masks which were discarded between each child, the annotations were made in the odontogram with a bicolor. At the end of the registration, the capture and analysis of data was carried out with the SPS 20 program. Summary and central tendency measures were reported.

4 Results

In the course of this research, we worked with a total population of 135 children with attention deficit hyperactivity disorder. In this population the average age was 9.4 years, SD = 2.6 a range of 6 to 15 years. 77.8% (105) were children and 22.8% (30) are girls.

The prevalence of caries was 72.3% (73), with 26.7% (28) of caries-free subjects in both dentitions. The average DMFT was 1.3 SD = 1.8 and a range of 0 to 8. The average CEOD was 1.9, DE = 2.1 and range from 0 to 8. (Graph 1). The average DMFT in children was 47.8% with caries and 52.2% free of caries.

The permanent dentition of these children presented the following: 13.3% (18) of the subjects had a decayed tooth, 15.6% (21) had 2 decayed teeth, 3% (4) 3 teeth, 5.2% (7) 4 teeth, .7% (1) 5, 1.5% (2) 6 decayed teeth, .7% (1) 7. 60% of the children had permanent dentition without decay. 3% (4) had permanent teeth lost. The obturations were observed in the following way: 10.4% (14) had 1 obturated tooth, 7.4% (10) presented 2, 7% (1) 3, 1.5% (2) had 4 obturated teeth. When analyzing the average DMFT and sex we observed that children were more affected 56.6% (17) and of the total of girls 45.1% (47) was. The CPOD was analyzed by age groups, obtaining as a result that in both of them 50.0% (32) presented some decayed, lost or clogged tooth. (Graph 2).

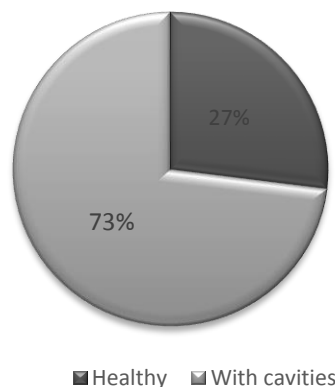
These children in the first dentition presented: 1 decayed tooth 11.8% (12), 12.7% (13) 2 decayed teeth, 8.8% (9) 3, 9.8% (10) 4 teeth, 2% (2) 5 and 6 teeth with cavities respectively and 1% (1) 8 teeth. 52% of these children had no tooth decay in the first dentition. The 10.8% (11) of the children studied had a lost or indicated tooth for extraction, 2.9% (3) had 2 teeth lost or indicated for extraction. The average ceod was 57% with caries and 43% healthy. (Graph 3).

When analyzing the average sex and sex we observed that children were more affected 65.5% (38) and of the total of girls 34.4% (20) was. Derived from these anomalies we see that 60% (81) of the first permanent molars is affected.

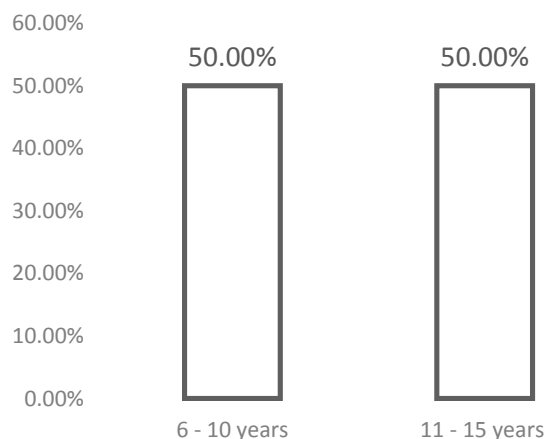
Given the importance of the first permanent molars, the analysis of their health status was made: The first lower right molar in 68.5% (89) of the children was found healthy, 18.5% (24) was decayed, 9.2% (12) sealed and 3.8% (5) was lost. In the study there were 5 children who did not have this tooth. The first lower left molar in 72.3% (94) of the children was healthy, 18.5% (24) were decayed and 9.2% (12) were filled.

The first upper left molar was observed in 89.7% (104) healthy, 8.6% (10) with decay, and 1.7% (2) with obturation. The first right upper molar in 87.6% (106) healthy, 10.7% (13) decayed and 1.7% (2) obturado.

The affection of the first permanent molar with age groups showed that the group of children who presented between 6 and 10 years of age 74% (60) had it, while in the group of 11 to 15 years 26% (21) he presented it. Of the total of children with some first permanent molar affected, 79% (64) were children and 21% (17) were girls.

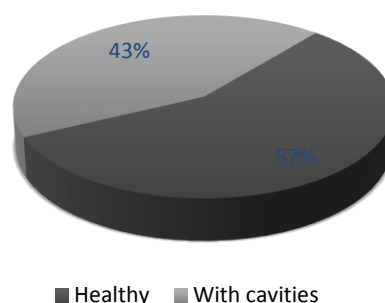


Graph 1 Prevalence of dental caries



Graph 2 Average CPOD by age

Average of CEOD



Graph 3 Average CEOD with caries

6 Conclusion

This population of children with ADHD presented a high prevalence of caries; I emphasize that there is a large number of healthy children, but we also find children who have 8 caries in the first and / or second dentition. I note that the number of children with cavities in the second dentition was greater. The carious component was higher in the averages of DMFT and CEOD. The condition in permanent teeth was observed equal in both age groups. Temporary tooth decay was observed more in children from 6 to 10 years of age. The lower molars were the most affected in this population. The affection of the first permanent molar was observed more in the children and those who were more affected were the smaller children.

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