

Original Research

Prevalence of deleterious oral habits in school going children

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ABSTRACT

Background: To assess the prevalence of deleterious oral habits in school going children.

Materials & methods: The study included 150 children of age 10 to 12 years. Out of 150 children, 85 were males and 65 were females. Children were examined on an upright chair using mouth mirror and straight probe. Prevalence rates of different oral habits studied were calculated.

Result: Age wise prevalence of oral habits as 10 years old showed 10%, 11 years have 16% rate and 12 years of age have 6% of prevalence rate. The result showed that 20% children had a habit of tongue thrusting, 18% mouth breathing and 6.4% nail biting.

Conclusion: The distribution of children aged 10 to 12 years having oral habits was evaluated with tongue thrusting being most prevalent.

Introduction:

Oral health is an important part of general health as well as well-being. Over the past two decades, traditional methods of measuring oral health, which mainly focus on the absence or presence of oral diseases have been substituted by a multidimensional concept that includes the psychosocial aspects of oral health and their influence on quality of life. ⁽¹⁾ Deleterious oral habits are the common problem of paediatricians which affects the quality of life. Oral habits are repetitive behaviour in the oral cavity that result in loss of tooth structure and they include digit sucking, pacifier sucking, lip sucking and biting, nail-biting, bruxism, self injurious habits, mouth breathing and tongue thrusting. Their effect is dependent on the nature, onset and duration of habits. ⁽²⁾

Oral habits are learned patterns of muscle contraction and have a very complex nature. Persistent oral habits beyond the normal age have been considered as an important factor which may lead to the malocclusion. Anterior open bite, posterior cross bite, incisor protrusion, lip incompetence distal step molar relation are some of the common negative consequences caused

by the prolonged oral habits. The extent of these disturbances varies from child to child depending on their actual skeletal and dental relationship and their inherent actual habit. ^(3,4)

According to many researchers finger sucking and nail biting are the most frequent ones present during childhood. Digit sucking is more common among young children while nail biting in older children. This finding may be attributed to the fact that digit sucking is closely related to the child's psychoemotional maturity and considered as normal phenomenon in the first 2 years with a reported prevalence of 20 to 30%. From the age of 4 to 7 years, finger sucking has been reported to have prevalence between 5 and 17% in different populations. Other oral habits, such as lip biting, tongue thrusting, lip sucking, bruxism are sometimes observed in children but to a lesser extent. Their lower prevalence rates could be due to difficulty to notice such oral habits. ^(5,6) Hence, this study shows the prevalence of deleterious oral habits in school going children.

Materials & methods:

The study included 150 children of age 10 to 12 years. Out of 150 children, 85 were males and 65 were females. Children were examined on an upright chair using mouth mirror and straight probe. Prevalence rates of different oral habits studied were calculated. Chi-square test was done to compare the prevalence of oral habits among different sexes, the value of $p < 0.05$ was regarded as significant. The results were evaluated using the SPSS software.

Result:

Prevalence of oral habits in males and females is depicted. Age-wise sample distribution is shown. Age wise prevalence of oral habits as 10 years old showed 10%, 11 years have 16% rate and 12 years of age have 6% of prevalence rate. The result showed that 20% children had a habit of tongue thrusting, 18% mouth breathing and 6.4% nail biting.

Age (years)	Male	Female	Total
10	40	20	60
11	25	25	50
12	20	20	40
Total	85	65	150

Table 1: Sample size distribution

Type of habit	Male	Female	p- value
Tongue thrusting	20 (13.4%)	10 (6.6%)	> 0.04
Mouth breathing	15 (10%)	12 (8%)	>0.04
Nail biting	3 (2%)	5 (3.4%)	<0.04*
Lip biting	-	-	

Table 2: Prevalence of oral habits

Age (years)	Number	Prevalence (%)
10	60	15 (10)

11	50	24 (16)
12	40	9 (6)

Table 3: Age-wise prevalence of oral habits

Discussion:

Oral deleterious habits are often called harmful or para functional and include thumb sucking, bottle feeding, tongue thrusting, nail biting, lip biting and the mouth breathing pattern. These habits have direct influence on quality of life and can affect the stomatognathic system of the body. ⁽⁷⁾ Mouth breathing is one of the main etiological factors responsible for facial growth alterations. ⁽⁸⁾ Therefore it is extremely important that this parafunction be diagnosed early and proper interventions be made to prevent future abnormalities. There are several studies that have associated mouth breathing with malocclusion. In our study, age wise prevalence of oral habits as 10 years old showed 10%, 11 years have 16% rate and 12 years of age have 6% of prevalence rate. The result showed that 20% children had a habit of tongue thrusting, 18% mouth breathing and 6.4% nail biting.

One of the study was taken to assess the prevalence of deleterious oral habits among 6-12 year old school going children. A sample size of 832 children was finalized with simple random sampling technique including 444 males and 388 females. Chi-square test was done to compare the prevalence of oral habits among different age groups and gender at $p < 0.05$. Bruxism (17.3%) was most commonly seen followed by bottle feeding (10.1%), thumb sucking (8.7%), nail biting (5.8%), tongue thrusting (4.9%) and mouth breathing (4.3%). Prevalence of all deleterious habits were more among female children and it also showed significant differences according to age. ⁽⁹⁾

In other study, oral habits that are prevalent well beyond the normal age frequently result in facial deformity and malocclusions. The aim of the present study was to know the prevalence of oral habits in 11 to 13 years old children of Jaipur city. The study included 1,000 children of age 11 to 13 years, belonging to different government and private schools of Jaipur city who were screened for

any deleterious habits at their school site. The result showed that 18% children had a habit of tongue thrusting, 17% mouth breathing and 3% nail biting. Sex-wise prevalence showed 18% females had oral habits and 20% of male had oral habit. ⁽¹⁰⁾

Conclusion:

The distribution of children aged 10 to 12 years having oral habits was evaluated with tongue thrusting being most prevalent.

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