

# Prevalence of Deleterious Oral Habits among School going Children; an Epidemiological Study

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## ABSTRACT

**Introduction:** oral habits after certain age causes unbalanced force on the developing occlusion and thus leads to further malocclusion. It plays a important role in dentoskeletal abnormality. The objective of this study was to assess the prevalence of deleterious oral habits among school going children.

**Material and methods:** A total of 500 students aged 6 to 14 years were selected for the study. Out of 500 students 300 were males and 200 females. A closed-ended questionnaire was used in the survey for collecting the information like age, gender and presence of deleterious oral habits.

**Result:** Most common oral habit found in our study was bruxism i.e. 18% followed by tongue thrusting in 14% students, digit sucking in 12%.

**Conclusion:** our results showed high prevalence of oral habits which suggested importance of preventive care. Early reorganization of habits can help to prevent malocclusion.

**Keywords:** Oral Habits, Bruxism, Dentoskeletal, Prevalence

## INTRODUCTION

Oral habits are one of the most common problems faced by the pediatrician as it affects Childs quality of life. They are learned pattern of muscle contraction, and are repetitive and complex in nature. Oral habits includes digit sucking, pacifier sucking, lip sucking and biting, nail-biting, bruxism, self-injurious habits, mouth breathing, and tongue thrust. These habits have great impact on developing occlusion and surrounding muscle.<sup>1</sup> Baer PN and Lester M reported that oral cavity is the primary as well as permanent location for expression of emotions and is a source of relief in passion and anxiety in both children and adults, stimulation of this region with tongue, finger, nail or cigarette can be a palliative action.<sup>2</sup>

Oral habits like thumb sucking and tongue thrusting are considered normal at an age of 3, beyond 3 years if it's persistent it starts showing deleterious effect on dentoskeletal.<sup>3</sup> The etiology of oral habit is multifactorial and has been reported to include factors like emotional stress, parasomnias, traumatic brain injury, neurologic disabilities and morphologic factors like malocclusion, muscle recruitment.<sup>4,5</sup> variation in prevalence of oral habits among pre-school children have been noticed ranging from 1.1% to 67.9%.<sup>6-8</sup>

So we aimed to the prevalence of deleterious oral habits among school going children.

## MATERIAL AND METHODS

500 patients with aged between 6 to 14 years of age were

selected for the study. Out of 500 patients 300 were males and 200 females (Table 1). Samples were selected from school; simple randoming sampling technique was used. Children with orthodontic appliances, systemic disease were excluded from the study. Ethical committee clearance was obtained. A written informed consent was obtained from the patient and guardians before any procedure. Thorough examination of oral cavity was done using mouth mirror, explorer in torch light making them to sit upright in chair.

A closed ended questionnaire was provided to children involved in survey to obtain details like age, sex, presence of habits, duration and frequency. A detailed history was obtained from parents regarding the habit and its intensity. In case of habits like mouth breathing and tongue thrusting, mirror test and butterfly test was performed, whereas for digit sucking fingers were examined.

## STATISTICAL ANALYSIS

Data obtained were analyzed and A *p*-value <0.05 was considered statistically significant. Data was analyzed by specific statistical software (SPSS Inc., Chicago, Illinois, USA)

## RESULT

A total of 500 students aged 6 to 14 years were selected randomly for the study. Out of 500 students 300 were males and 200 were females (Table 1). Age distribution was done, in our study maximum number of students was aged 8 to 10 years i.e. 28% (Table 2). Based on the questionnaire and detailed case history it was found that 377 out of 500 students were found to have oral habits.

In our study most common habits was found to be bruxism i.e. 18%, followed by mouth breathing i.e. 15.4%, tongue thrusting i.e. 14%, digit sucking 12% and lip biting and nail biting was found to be 8% (Figure 1). *p* value was found significant in case of bruxism in our study (*p*-0.001). Prevalence of habit showed 28% had single habit, 15% had

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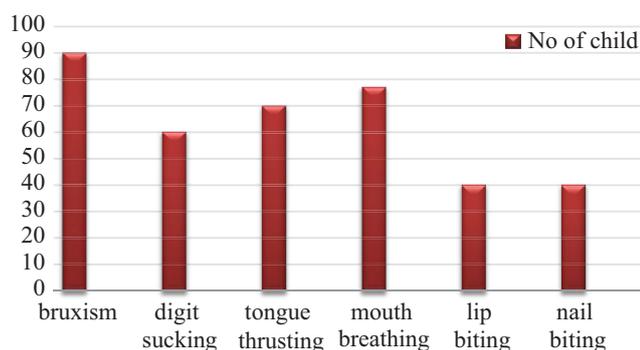
Mean age	12 to 36 months
Males	300
Females	200
Total	n = 500

**Table-1:** Patient's demographic value

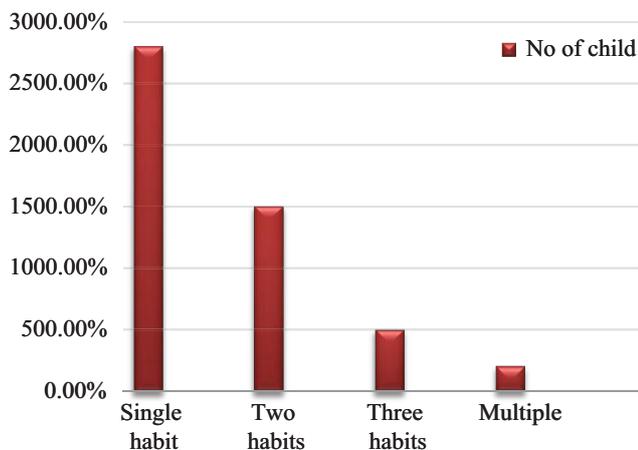
Groups	Frequency	Percentage
6-8	112	22.4%
8-10	140	28%
10-12	120	24%
12-14	128	55.6%
Total	500	100%

p > 0.05; Not significant

**Table-2:** Distribution of children according to age group



**Figure-1:** Frequency of oral habits



**Figure-2:** Prevalence of number of oral habits

two habits involved, 5% having three habits and 2% with multiple habits (Figure 2).

## DISCUSSION

Oral habits are associated with skeletal and dental abnormalities. Its effects vary from person to person and depend upon the frequency, duration and intensity of habit. Guaba K et al reported 3% in rural children of Ambala in North India, which was very low.<sup>9</sup> However in current study the prevalence rate, was found to be more.

In present study the most common oral habit was found to be bruxism and mouth breathing i.e. 18%. Singh A Basra et al in their study also reported bruxism and mouth breathing to be the most common oral habit.<sup>10</sup> where as Kharbanda et

al reported tongue thrusting and mouth breathing as the most prevalent habits in their studies.<sup>7</sup>

In our study the prevalence of single habit was found to be 28%, which is in correlation with the study reported by Singh A Basra and Kharbanda et al.<sup>7,10</sup> Other authors have reported a higher prevalence i.e.51%.<sup>11</sup> Guaba et al reported 3% of children demonstrated oral habits, which is not in agreement with our findings.<sup>9</sup>

In our study least common habit found was lip biting and nail biting i.e.8%. However Shetty and Munshi, in their study reported 12.7% children with nail biting. It was higher than what we found in our study. In our study tongue thrusting was found to be 14% whereas Bhayya DP et al found tongue thrusting as the most prevalent oral habits which is not in support of our study.<sup>12</sup> Digit sucking was found to be in 12% cases in our study where as those reported by Kharbanda et al observed occurrence of digit sucking most frequently in 50% of the children.<sup>10</sup>

## CONCLUSION

Results in our study showed that prevalence rate for oral habit was high. Bruxism was found to be the most common habit according to our study. Gender distribution based on habit was not included in our study. However nail biting and lip biting was considered to be the least common finding in our study. However further study is required.

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