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Original Research

Prevalence of deleterious oral habits in school going children

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ABSTRACT:
Background: Prevalence of deleterious oral habits in children. **Materials & methods:** A total of 100 subjects were enrolled. The age of subjects was 10 to 12 years. Out of total, 60 were males and 40 were females. Clinical examination was done. Children were examined using mouth mirror and straight probe. The results were evaluated using the SPSS software. **Results:** The result showed that 22% children had a habit of tongue thrusting, 15% mouth breathing and 5% nail biting. **Conclusion:** Tongue thrusting is the most prevalent oral habit among children.
Keywords: Prevalence, Tongue thrusting, Children.

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INTRODUCTION

Deleterious oral habits (DOH) are one of the most frequent habits observed by dental surgeons that have a great impact on the normal growth and development of muscles and jaw bones during childhood and adolescence stages of life. [1] These oral habits are learned patterns of muscular contraction and have great complex nature. At the beginning these are conscious and after some time it become unconscious. [2] The authors in most of the studies mentioned that etiology of oral habits may have a significant task in the development of dental anomalies and malocclusion as they produce a disproportion between the intra and extra musculature of oral cavity. [3] The extension of these disorders varies from individual to individual depends on their actual jaw relationship and the frequency of habit. [4]

An oral habit in infancy and early childhood is normal, and it is considered abnormal over 3 years of age. [5] Oral habits could be functional or parafunctional. Functional habits result from repeating a normal function, such as nasal breathing, chewing, phonoarticulation, and swallowing, while the parafunctional habits are acquired by practicing a nonfunctional or unnecessary action, such as thumb or lip sucking, bruxism, mouth breathing, and tongue thrusting. [6,7] The persistence of deleterious parafunctional oral habits have little effect on child health, but play a significant role in altering the position of the teeth, the inter-arch relationship, interfering with the normal growth of the jaws, and the function of the orofacial musculature.[8] 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. [9] Hence, this study was conducted to evaluate prevalence rate of deleterious oral habits in children.

MATERIALS & METHODS

A total of 100 subjects were enrolled. The age of subjects was 10 to 12 years. Out of total, 60 were males and 40 were females. Clinical examination was done. Children were examined 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 considered as significant. The results were evaluated using the SPSS software.

RESULTS

A total of 100 subjects were enrolled. Prevalence of oral habits in males and females is depicted. Age-wise sample distribution is depicted. Age wise prevalence of oral habits as 10 years old showed 8%, 11 years have 13% rate and 12 years of age have 4% of prevalence rate. The result showed that 22% children had a habit of tongue thrusting, 15% mouth breathing and 5% nail biting.

Table 1: sample size distribution

Age (years)	Male	Female	Total
10	30	10	40
11	20	20	40
12	10	10	20
Total	60	40	100

Table 2: age-wise prevalence of oral habits

Age (years)	number	Prevalence (%)
10	40	8 (8)
11	40	13 (13)
12	20	4 (4)

Table 3: prevalence of oral habits

Type of habit	Male	Female	p- value
Tongue thrusting	14 (14%)	8 (8%)	> 0.03
Mouth breathing	10 (10%)	5 (5%)	>0.03
Nail biting	1 (1%)	4 (4%)	<0.03*
Lip biting	-	-	

DISCUSSION

One of the contributory factors in the establishment of improper occlusion is child's deleterious oral habits. Development of these parafunctional habits in the preschool age children is considered as a sign of distress and emotional instability.[10] Children in particular practice these anomalous habits as a way to attract attention, possibly because they find themselves in a violent family environment, lack of parental attention, lack of emotional maturity, or constant changes in the family.[11] Besides, poor physical health and chronic illness during infancy can also predispose to the development of these habits. Many authors in most of the studies mentioned that oral habits, if persisted beyond preschool age, play a significant role in the development of dental anomalies and malocclusion as they produce a disequilibrium between the intra- and extraoral muscular activities. [3,12] Hence, this study was conducted to evaluate prevalence rate of deleterious oral habits in children.

In the present study, a total of 100 subjects were enrolled. Prevalence of oral habits in males and females is depicted. Age-wise sample distribution is depicted. Age wise prevalence of oral habits as 10 years old showed 8%, 11 years have 13% rate. A study by J B Garde et al, 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. The data showed high prevalence of these oral habits. [3]

In the present study, age wise prevalence of oral habits as 12 years of age have 4% of rate. The result showed that 22% children had a habit of tongue thrusting, 15% mouth breathing and 5% nail biting. Another study by S Dhull K et al, a high prevalence of oral habits (36%) among preschool children in Bhubaneswar, Odisha, India. Lip biting was found to be the most prevalent habit (13.4%), followed closely by thumb sucking (12.8%), bruxism (12.8%), and mouth breathing (11%). They revealed a great dearth of a well-established dental education program for preschool children as well as their parents, caretakers, teachers, and pediatricians in order to provide an effective and timely care to the children. [13] A study by Sharma S et al, 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. The distribution of children aged 11 to 13 years having oral habits was evaluated with tongue thrusting being most prevalent and exhibiting minimal sexual predilection. [14] Further, the children examined had oral habit of some or the other kind. This finding is in agreement with the results of Quashie-Williams, [15] who found 34.1% of the children examined presented with an oral habit. In contrast to this observation low prevalence of oral habits (29.7 and 25.5%) was reported by Shetty et al (1998) [16] and Kharbanda et al (2003) [17] who studied prevalence of oral habits in south and north Indian children respectively. Further, Guaba et al [18] reported that only 3% of children demonstrated oral habits, which is very much in disagreement with our findings. But higher prevalence (50%) of oral habits had been reported by Bandung et al who did a study on children of age 6 to 12 years. [19] 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. [20] Mouth breathing is one of the main etiological factors responsible for facial growth alterations. [21] Therefore it is extremely important that this parafunction be diagnosed early and proper interventions be made to prevent future abnormalities.

CONCLUSION

Tongue thrusting is the most prevalent oral habit among children.

REFERENCES

1. Giugliano D, Apuzzo F, Jamilian A, Perillo L (2014) Relationship between malocclusion and oral habits. Current Research in Dentistry 5: 17-21.
2. Farhanaz F, Yashoda R, Puranik MP (2016) Psychosocial factors and bruxism - A review. Int J Health Sci Res 6:435-442.
3. Garde JB, Suryavanshi RK, Jawale BA, Deshmukh V, Dadhe DP, et al. (2014) An epidemiological study to know the prevalence of deleterious oral habits among 6 to 12 year old children. J International Oral Health 6:39-43.
4. Sharma S, Bansal A, Asopa K (2015) Prevalence of oral habits among eleven to thirteen years old children in Jaipur. Int J ClinPediatr Dent 8:208-210.
5. Rani MS. Synopsis of orthodontics. 2nd ed. New Delhi: All India publisher and Distributors; 1998. pp. 179–200.
6. Shahraki N, Yassaei S, Moghadam MG. Abnormal oral habits: a review. J Dent Oral Hyg. 2012 May;4(2):12–15.
7. Agurto PV, Diaz RM, Cadiz OD, Bobenrieth FK. Oral bad habits frequency and its association with dentomaxilar abnormal development, in children three to six year old in Santiago Oriente. Rev Chil Pediatr. 1999;70(6):470–482.
8. Dentistry AAoP. Policy on oral habits. Pediatr Dent. 2005;27:40–41.
9. Ravn JJ. The prevalence of dummy and finger sucking habits in Copenhagen's children until the age of 3 years. Community Dent Oral Epidemiol. 1974;2(6):316–322.
10. Canut Brusola JA. Ortodoncia clinica y terapeutica. Barcelona: Ed. Masson; 2001. pp. 237–241.
11. Murrieta-Pruneda JF, Bello RI, Silva LE, Juarez-Lopez LA, Vieyra CL, Ocampo AF, Murillo VZ, Rebolledo MG. Prevalence of nonnutritive buccal habits in a group of preschool children in Nezahualcoyotl city, Mexico (2009) Bol Med Hosp Infant Mex. 2011 Jan-Feb;68(1):24–30
12. Grabber TM. Thumb and finger sucking. Am J Orthod. 1959 Apr;45(4):259–264.
13. S Dhull K, Verma T, Dutta B. Prevalence of Deleterious Oral Habits among 3- to 5-year-old Preschool Children in Bhubaneswar, Odisha, India. Int J Clin Pediatr Dent. 2018 May-Jun;11(3):210-213.
14. Sharma S, Bansal A, Asopa K. Prevalence of Oral Habits among Eleven to Thirteen Years Old Children in Jaipur. Int J Clin Pediatr Dent. 2015 Sep-Dec;8(3):208-10.
15. Quashie-Williams R, Dacosta OO, Isiekwe MC. The prevalence of oral habits among 4 to 15 years old school children in Lagos, Nigerian. J Health and Biomed Sci. 2007;6(1):78–82.
16. Shetty SR, Munshi AK. Oral habits in children: a prevalence study. J Ind Soc Pedo Prev Dent. 1998 Jun;17(2):61–66.
17. Kharbanda OP, Sidhu SS, Sundaram KR, Shukla DK. Oral habits in school going children of Delhi: a prevalence study. J Ind Soc Pedo Prev Dent. 2003 Sep;21(3):120–124.
18. Guaba K, Ashima G, Tewari A, Utreja A. Prevalence of malocclusion and abnormal habits in North Indian rural children. J Ind Soc of Pedo Prev Dent. 1998;16(1):26–30.
19. Bandung B, Gildasya , Riyanti E, Hidayat S. Prevalence of oral habits in homeless children under care of Yayasan. Available at: URL: unpad.ac.id/unpad-content
20. PV Agurto, RM Diaz, OD Cadiz, FK Bobenrieth. Oral bad habits frequency and its association with dentomaxilar abnormal development, in children three to six year old in Santiago Oriente. Rev Chil Pediatr. 1999;70:470–482.
21. Fujimoto S, Yamaguchi K, Gunjigake K. Clinical estimation of mouth breathing. Am J Orthod Dentofacial Orthop. 2009;136:e1–e7.