

THE HABIT OF DIGIT SUCKING AMONG CHILDREN AND THE ATTITUDE OF MOTHER'S TOWARDS THE HABIT IN INDIA

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Abstract

Aims and objective: The aim of the present study was to evaluate the digit sucking habit among children and to evaluate the behavior and attitude of their mothers to stop the habit.

Material and methods: A cross sectional study was conducted among 300 children who are having digit sucking habit and other adverse habits. A self-prepared questionnaire was used to collect the data. The data were analyzed using the SPSS version 11.0 computer program, and the chi square test was used.

Result: It shows that 68% of mother's didn't tried to use measures to stop their child from digit sucking and didn't tried to intervene the abnormal habit of their child because of lack of knowledge, unawareness and unacceptable attitude. 62% of mother's did not take their child to a dentist to fix the habit. It was also found that 24% of children feel secure while sucking thumb or any finger. As a result, physiological reduction of breast feeding was found in 17% of children suffering from the habit.

Conclusion: All mothers accepted the adverse effect of the digit sucking fixation. Noninvasive procedures were most commonly used by the mother to stop their child from sucking digits.

Key words: Digit sucking, Pacifiers, Sucking behavior.

Introduction

A habit is a fixed practice produced by constant repetition of an act.¹ At each repetition, it becomes less conscious, and if repeated often enough, may be related to subconscious. The digit sucking habit is the most common oral fixation seen in children.² Either the thumb, or one or more fingers may be sucked to various extent.³ The prevalence varies and depends on a number of factors such as the child's age, sex, socio-economic status and racial background.⁴ Children aged 3-6 years who were breastfed for nine months or longer had a lower prevalence of non-nutritive sucking habits.⁵ There are considerable differences in feeding, as well as artificial sucking habits, in different areas of the world and at different periods.⁶

Digit sucking and especially thumb sucking is a common non-nutritive habit. The incidence of digit sucking is higher among infants up to 1 year of age. This number decreases with age and spontaneous cessation of the habit is often observed by the age of 4-5 years.

Prevalence of this habit is variable across cultures. While it is very common in western societies, in some parts of Africa and Asia, it is uncommon and among eskimos, it is unknown. Why so many children exhibit this habit and what causes it has puzzled both scientists and parents for many years.

The etiology behind the initiation of the digit sucking habit among children has been extensively investigated and divergent explanations have appeared in the literature. The prolonged practice of digit sucking may lead to dental problems including the development of open bite, increased overjet and class II malocclusion.⁷ Accidental ingestion of harmful substances⁸ and digital deformation⁹ have also been associated with the digit sucking.

Van Norman¹⁰ reported that treatment of the digit sucking habit is often neglected or approached with hesitancy. This

is because of the psychological theory that suggests elimination of the digit sucking habit will lead to the substitution of other possibly aberrant behaviors. Little attention has been given to the evaluation of parent's attitudes towards digit sucking as an important factor in the elimination of this habit. It is probably correct to assume that attitudes towards oral habits varies among different ethnic groups since they differ in culture, beliefs and awareness, as well as socio-economic development and caring level.

There is a negative relationship between the prevalence of initial pacifier digit sucking habit and initial digit sucking.¹¹ Several studies have revealed an increased incidence of posterior cross bite in the primary dentition in pacifier sucking children.¹²

There was an increase in the number of children involved in oral habits at the early mixed dentition stage with significant correlations between oral habits and anterior open bite as well as a higher tendency towards Class II molar relationship for those with initial Class I.¹³ Malocclusions are quite prevalent in the mixed dentition, and anterior open bite and posterior cross-bite may be preventable by modifying nonnutritive sucking behaviors.¹⁴

At all ages the frequencies of open-bite and maxillary protrusion for the thumb and finger-sucking group were higher than the non-oral-habit group. The frequencies did not appear age-related. There appeared to be an increased tendency to a permanent malocclusion in children who continued after four years of age.¹⁵

Knowledge of current literature in these areas may assist pediatric dentists with their decisions of whether to recommend or discourage pacifier use in infants.¹⁶

To intercept the development of cross-bites and functional shifts, the developing occlusion should be observed in the deciduous dentition in children with prolonged digit or

pacifier habits. The transverse occlusal relationship, particularly in pacifier-sucking children, should be evaluated between 2 and 3 years of age. If there are interfering contacts of the deciduous canines, the parents should be instructed to reduce pacifier-sucking time, and appropriate treatment should be rendered, if required.¹⁷

Material and Methods

A cross sectional study was conducted among 300 children having digit sucking habit and other adverse habits and reported for checkup during the period of January 2014. The data was collected from patients visiting outpatient department of dental college. A self-prepared questionnaire was used to collect the data. 346 children were evaluated in the study out of which 46 students were excluded because they were not having any abnormal habit.

The data was collected by interviewing the mother using a self-prepared questionnaire designed for the purpose. The questionnaire include general information about the mother, her child's age and sex, mother's attitude towards the habit of the child, mother's attempt to intervene, and whether she sought any medical or dental advice about digit sucking.

Ethical clearance was being obtained from institutional ethical committee. Inform consent was taken before starting the examination. Questionnaire was checked by a pre-test prior to examination.

The data were analyzed by applying the chi square test using the SPSS version 11.0 computer program.

Results

Table 1 reveals that attitude of 68% mother's are unacceptable because of lack of knowledge and unawareness. 62% mother did not take their child to either dentist or pediatrician. 44.6% mother's didn't try to intervene in the abnormal habit of their child.

Table 2 suggests that 68% mother's didn't try to use measures to stop their child from digit sucking. It was also found that 24% children feel secure while sucking thumb or any finger. As a result, physiological reduction of breast feeding was found in 17% of the children suffering from the habit. 17% children used to suck finger during sleep.

Table 3 reveals that the children were also suffering from other adverse like bruxism, chin biting and mouth breathing. 66% children were having nail biting habit along with digit sucking habit. 63% were having mouth breathing habit. Most of the children suffering from digit sucking were in the 0-3 year age group (19%).

Discussion

This study aimed at evaluating the attitude of mother's towards the digit sucking habit in their children and to examine some of those factors that might be expected to influence their perceptions. The age, sex of mother and the child were taken in consideration.

The result revealed that attitude of 32% mother's was acceptable. They gave proper instructions and used

measures against the habit of their child. They never tolerated digit sucking after the age of 4 yrs. This is in agreement with Schneider and Peterson¹⁷ who considered the behavior to be a normal childhood activity upto the age of 4 yrs. 35.4% of mother's did an attempt to intervene the habit of the child. This number is very low than that given by Vadiak as *et al*¹⁸ who reported that 71% of mother of 3-5 year age attempted to stop the behavior.

The effect of digit sucking on occlusion include the development of posterior cross bite and class II malocclusion.^{17,19} The degree of severity depends on the duration, frequency and intensity of the habit. In 43% children, disturbance in the occlusion due to the habit was found. Thus it has been suggested that the chances of self-correction are fare if the child abandons the digit sucking before the age of 4 years.

The adverse effect of the digit sucking habit on occlusion was the main reason for the attempts of the mothers in this study to stop the behavior in their children. The harmful effects of digit sucking on dental occlusion were often noticed by mother who had links with the development of occlusion. This is in agreement with Vadiakas *et al*¹⁸ 64.6% of mother's in this study didn't try to stop the habit because their children were too young. This finding is in contradiction with the psychoanalytic theory.²⁰

Analysis of the most commonly recorded methods used to stop the digit sucking habit in the study indicated that the majority of mothers were not at all aggressive in their attempt to stop the habit of their children. The mothers were not convinced with the procedures used to eliminate the habit. They were unsure of their effectiveness (gloves, nail polish, digit caps etc.) Only 38% of the mothers took their child to a dentist to consult about the habit. However, a considerable amount of awareness was seen in 62% of mothers who consulted a pediatrician.

In our study there was a definite association between an increases in child's age and the degree of malocclusion in a group with the digit sucking habit. Significant relation was found between the mother's age and her attitude towards the habit. Mother of both age groups was equally aware whereas Popovich and Thompson²¹ reported that no significant relation was found between the mother's age and her attitude towards the habit. Older mothers were more concerned than the younger ones. This may be because the older mothers are more experienced, have an increased level of awareness and are mature enough to deal with the problem. Employed mothers are often busier and work away from the house, which reduces the time they spend with the children in turn. Because of which, a

physiologic reduction in breast feeding was found among 17% of all the children. In our study, in only 14% of children, there was an increased incidence of posterior cross bite in pacifier sucking children below 4 years of age whereas Erik Larsson and Samir Bisharat²² reported that in 17% of children, there was an increased incidence of posterior cross bite in pacifier sucking children below 4

Table 1: Relationship between the mother's attitude to the digit sucking habit and their age, education and employment.

	Age [Years]	Age [Years]	Education level	Education level	Employment status	Employment status	P value
	21-30	31-40	Low	High	employed	Unemployed	
Mother's attitude	51[17.0%]	45[15.0%]	54[18.0%]	42[14.0%]	39[13.0%]	57[19.0%]	0.614
Mother's attempt to intervene	48[16.2%]	57[19.2%]	36[12.1%]	69[23.1%]	57[19.2%]	48[16.2%]	0.222
Mother's instructions	81[27.0%]	60[20.0%]	57[19.0%]	84[28.0%]	60[20.0%]	81[27.0%]	0.035
Dental advice	60[20.0%]	54[18.0%]	48[16.0%]	66[22.0%]	54[18.0%]	60[20.0%]	0.658
Pediatric advice	90[30.0%]	96[32.0%]	81[27.0%]	105[35.0%]	90[30.0%]	96[32.0%]	0.248
Occlusion disturbance	54[18.0%]	75[25.0%]	54[18.0%]	75[25.0%]	57[19.0%]	72[24.0%]	0.006

Table 2: Number and percentage of children using measures and having different

Measures	N	%
Preventive measures against the habit	96	32
Measures used	201	67
Feeling of security for child	72	24
Physiologic reduction of breast feeding	51	17
Increased incidence of posterior cross-bite	42	14
Sucking during sleep	51	17
Milk fever	9	3

years of age. Milk fever incidence was rarely found among the children [3%].

Conclusion

All mother's did not find the digit sucking habit to be acceptable. They accepted the adverse effect of the digit sucking fixation. Non-invasive procedures were most commonly used by the mother to stop their child from sucking digits.

Table 3: Number and percentage of the disease child is suffering from.

Adverse Habits	N[%]		
	0-3	4-6	7-11
Nail biting	24[8%]	39[13%]	3[1%]
Digit sucking	57[19%]	12[4%]	6[2%]
Bruxism		3[1%]	
Chin biting		3[1%]	
Mouth breathing	12[4%]	42[14%]	9[3%]
Others	27[9%]	48[16%]	15[5%]

* $P=0.004$, chi square value=68.684

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