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Original Article

Relationship of family related factors with dental caries prevalence in 5 years old children of different schools of Hyderabad.

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Abstract:

Introduction: The habits children have included in life; continues to make the choices they make as adults. According to social learning theory these habits are derived through supervision, learning and modelling. For a child, most significant are primarily father and mother and their immediate family members. All these factors have the collective ability to influence the child's oral health outcomes.

Objective: To examine the dental caries rate in 5 year's old school children and influence of their family related habits and socio demographic factors on child's dental caries experience and their oral health behavior.

Methodology: This study conducted upon sample of 600 school children selected through random sampling from primary private and Government primary schools of Qasimabad Hyderabad Sindh during period of October 2015 to December 2015.

Results: shows that out of 600 children 330 (55%) were boys and 270 (45%) were girls. Boys 245 (40%) were affected from caries and 85 (14%) were free from caries. In relation to parental education; 44 (7.3%) child boys whom parents were highly educated were found affected by caries 44(7.3%), while 3 (0.5%) boys were free from caries. Girls whose parents were highly educated affected by caries were 44 (7.3%), caries free were 12(2%) Boys whose parents have incomplete secondary education/ vocational school were affected by caries 162(27%) and caries free were 82(13.6%). Girls whose parents have incomplete secondary / vocational school were affected by caries 145 (24.1%). Boys whose parents were having low level of education affected by caries were 39(6.5%) while caries free were 0 (0%). Girls whose parents have low level of education were affected by caries were 69 (11.5%) while caries free were 0 (0%) **.**

Conclusion: Life style choices are the habits that are formed in childhood and dictated as in adult hood. Thus, assessing family related risk factor regarding oral health is essential when conducting preventive treatment programs for children because education on oral hygiene maintenance and regular preventive dental health check-ups are very important in order to prevent oral diseases.

Key words: Dental Caries, primary dentition.

Introduction:

The habits children have included out in life, continues to make the choices they make as adults. Thus, children having good diet and proper oral hygiene at an early age has favorable face health after life. According to social learning theory these habits are derived through supervision, learning and modelling. For child, significant others are primarily their father and mother and their immediate family members.[1] Good habits in children inoculated by parents are based on their own attitude and beliefs. The state of oral health of parents relates to the state of their child's oral health in the various integra-

tion process.[2] A child's dietary behavior and oral hygiene status of a 5-year-old child are often dictated by caregivers or parents. Parents' choices in turn are influenced by a variety of factors such as attitudes and behavior as well as socio-demographic status of the family.[3-7] All these factors have the collective ability to influence the child's oral health outcomes. Studies conducted previously have established that family related factors have definitive influence on dental caries experience in primary dentition. Study conducted in Sri Lanka shows that focusing on parents improving their children's oral health outcomes is an indispensable sine qua non.[8] Some studies have suggested that the family structure may affect dental caries in children.[9] However many studies did not hold important founders accountable during analysis such as family structure, socio demographic status, and income, which is the known determinants of both childhood tooth decay and family life.[10-16.]

Objective:

This study was conducted to examine the dental caries rate in 5 year's old school children and influence of their family related habits and socio demographic factors on child's- dental caries experience and their oral health behavior.

Methodology:

This study was carried out from October 2015 to December 2015 at Private and Government Primary schools of Qasimabad Hyderabad in collaboration with Department of Community Dentistry LUMHS Jamshoro. In this study 600 school children of 5 years old and their parents were selected by randomized sampling method. Dental caries assessment was done using Decayed, Missing, and Filled Teeth (DMFT) index. Oral examination of child was done in simple class chair with sterilized mouth mirror and blunt ended probe. Parents were asked questions regarding education, occupation etc.

Sample Selection: Schools were randomly selected using a list obtained from the local governing body. With the permission of the head master\ headmistress, parental consent for the children The students were selected randomly for examination.

Inclusion Criteria:

- Children aged 5 years were eligible.
- Children selected who were free from mental and physical disability
- Both Genders were included.

Results:

Result shows that out of 600 children 330 (55%) were boys and 270 (45%) were girls as shown in Table 1.. Boys 245 (40%) were affected from caries and 85 (14%) were free from caries, Girls 258(43%) were affected from caries and 12(2%) were free from the caries (P <.000) so, there is significant difference in caries rate according to gender as shown in table 2. According to results girls shows higher caries rate. According to parental education parents who were highly educated their child boys were affected by caries 44 (7.3%), boys who were free from caries 3 (0.5%). Girls whose parents were highly educated affected by caries were 44(7.3%), caries free were 12(2%) (P< 0.31) shows insignificant difference between highly educated parents and caries rate of child. Boys whose parents have incomplete secondary education/ vocational school were affected by caries 162(27%)and caries free were 82(13.6%). Girls whose parents have incomplete secondary / vocational school were affected by caries 145 (24.1%) while caries free were 0(0%). (p < .000) shows significant difference between parental incomplete secondary education/ vocational school. Boys whose parents were having low level of education affected by caries were 39(6.5%) while caries free were 0 (0%). Girls whose parents have low level of education were affected by caries were 69 (11.5%) while caries free were 0 (0%) No P value is computed here because dental caries free were 0 (0%). as shown in Table 3. According to Parental occupation Boys whose both parents were working, affected by dental caries were 39(6.5%) , caries free were 85(14.1%). Girls whose both parents were working, affected by caries were 49(8.1%), caries free were 12(2%). (p <.000) shows strongly significant difference between parental occupation and caries experience of child. Boys whose mother is house wife and Father is working, affected by caries were 206 (34.3%), caries free were 0(0%). Girls whose mother is housewife, Father working, affected by dental caries were 209 (34.8%) while caries free were 0(0%). Here no P value is taken out as caries were 0 As shown in Table 4.

Table:1 Distribution of children according to gender.

Total no: of	Age	Boys	Girls
600	5 years old	330 (55%)	270 (45%)

Table:2 Distribution of Dental Caries according to Gender.

Dental Caries				
Gender	Affected by caries	Caries free	Total	P - Value
Boys	245 (40%)	85(14%)	330	0.000
Girls	258(43%)	12 (2%)	270	
Total	503 (83%)	97 (16%)	600	

Table:3 Distribution of Dental Caries according to Parental Education .

Parental Education	Dental Carries			
	Affected	Carries Free	Total	p value
Highly educated				
Boys	44(7.3%)	3(0.5%)	47	0.31
Girls	44 (7.3%)	12 (2%)	56	
Total	88(14.6%)	15(2.5%)	103	
Incomplete secondary/vocational school				
Boys	162(27%)	82(13.6%)	244	.000
Girls	145(24.1%)	0 (0%)	145	
Total	307	82 (13.6%)	389	
Low Level of Education				
Boys	39(6.5%)	0 (0%)	39	
Girls	69(11.5%))	0 (0%)	69	
Total	108 (18%)	0 (0%)	108	

Parents Occupation	Dental Carries			
	Yes	No	Total	p value
Both mother & Father work				
Boys	39 (6.5%)	85 (14.1%)	124	0.000
Girls	49 (8.1%)	12 (2%)	61	
Total	88 (14. 6%)	97 (16.1%)	185	
Father work/Mother House Wife				
Boys	206 (34.3%)	0 (0%)	206	
Girls	209 (34.8%)	0 (0%)	209	
Total	415 (69.1%)	0 (0%)	415	

Discussion:

The purpose of this study is to assess the prevalence of tooth decay in children aged 5 years. We found that children suffer from tooth decay and the proportion in girls seems more. After oral examination, most of the lesions showed urgent need of restoration as well as preventive care. Our aim was to identify family related risk factors for caries in primary dentition. Our Results showed that mother's level of education has great impact on child's oral health especially on caries rate. Because child copy what their parents and siblings do. Wingen TI et al. in their study established that the state of parental work and dental attitudes and behavior towards oral health strongly affect the state of caries of children.[17] The mother's level of basic education, higher no: from siblings, frequent snacking, a less serious attitude towards maintaining oral hygiene, the pattern of tooth cleaning without assistance by children the pattern of tooth cleaning without assistance by children and parents who do not clean their teeth twice a day leads to an increase in the rate of caries.[18] Some studies shows resemblance with our study that shows that mother's level of education has significant affect in child's oral health while father's level of education does not affect the caries experience of a child.[19,20] Lenient attitude of parents towards their child when they take higher concentration of sugar leads to caries. However, reduction of sugar consumption not only reduces caries or good for dental health but it also reduces chances of obesity, cardiovascular diseases, hypertension, diabetes mellitus as well.[21] It is very important for parents to understand the drawbacks behind increase sugar consumption. Children should brush their teeth twice daily and supervised tooth brushing should be done so that caries rate will be decreased. Tooth brushing reduces caries rate is the established fact.[22] Parental motivation and education against unhealthy dietary patterns and oral hygiene maintenance choices is key to achieving a child's good oral health.

Conclusion:

Family related risk factor regarding oral health status are essential when conducting preventive treatment programs for children.

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