Survey Report on Scio Behavioral Patterns on Dental Cries among Urban and Rural Area

Mahendra M. Alate¹, S. V. Kakade², Dhirajkumar A. Mane³, Jai Gandhi⁴

^{1,3}Director of Research Office, KIMSDU, 2 Department of Community Medicine, CO, 4 Department of Conservative Dentistry's, Krishna Institute of Medical Sciences "Deemed To Be University", Karad Tal: Karad, Dist Satara, (Maharashtra) India. 415110

Abstract: <u>Background</u>: Dental cries seen in Coman types disease seen at early stage of age that is at adult age. Focusing the Decayed, Missing, And Filled Teeth at particular stage than future s dental problems automatically removed that time. <u>Aim</u>: To assess the dental caries of a five and six years old school children. <u>Objective</u>: i) Find out dmft score five and six years old school children ii) Camper dfmt score urban and rural children's. <u>Results</u>: There was impact of socio behavioral patterns on dental caries at five and six years old children's. Calculated dmft Score was divided in to three partes. dmft score observed there was significant difference between in standardizes divisions each group such as in urban dmft score there was no changes in urban and rural. There were not statistical significant differences in dmft score in urban and rural area.

Keywords: Decayed, Missing, And Filled Teeth, Dental Caries, Urban area, rural area

1. Introduction

Dental caries it is one kind of disease where, the hard tissues of the teeth at carton level have been damaged, generating cavities in the tooth. Generally the prevalence of dental caries in India78.9% has progressively decline over the last 20 years due to dental hygiene practices and the increased use of fluoride-containing products; health surveys still estimate the percentage of adults with decayed, missing, or filled tooth surfaces to be 98.3%. (Brown) While the disease is multi task involved in nature, the mechanism for caries generation is well understood. Four main components exist in the process of caries formation: a tooth surface, acidogenic bacteria, fermentable carbohydrates, and time etc. [1]

WHO suggested approximate 3.58 billion people face dental problems. In general in entire population half of the population surviving dental caries. In interned world low-income countries experienced an increasing trend in dental caries among school children, particularly observed recorded in 12-year olds that is children of 1st standard to 6th standard class, which is the principal WHO indicator age group for children. The Effect of the Caries in children health to increases the risks of negative effects on children's life. Some of the studies say that, health status of children in low-income or medal income countries particularly Southeast Asia. [2]Very few of study conducted on the how oral health is associated with socio-behavioral factor.

According to the WHO Health Survey conducted in 2003 Dental caries is general oral health problem in most of children's in industrialized countries, affecting 60-90% of schoolchildren and the vast majority of adults.[WHO health Report 2003].the oral cavity crated has been many functions in relation to daily life such as food intake, speech, social contact and appearance. Reduced oral health has thus the potential of hampering the excellence of life. Automatically the trend of the food intake decreased because of some oral pain or poor dental status can reason of low growth in children.[3] configuration of oral cavity generating pain and other some dental problems created. Pain force also have a inverse impact on the ability to connect in social relations and children strength not get the full benefit of their dally educational life if surviving from pain and discomfort. While some dental problems among children has a inverse effect on speech development, it may also have a socially bothering effect in children's affecting social behavior.

According to the epidemiological information of East Asian countries, we comparing to the nabering countries such as China and Thailand.Some low to moderate caries levels among school children are exposed. Calculating a mean scores of decayed, missing, and filled teeth dmft 2.4 in a Thai study of an 12-year-olds while conducting surveys of the same age group of children in China we can practical seen low mean dmft of 0.8-1.0 [4, 5, 6]. Dental caries is mainly associated with one or more defensive measures of fluoride use, such as the need for modification of fluoridation in general population water supply and use of fluoridated dentifrices (7). Still, even with the improvement in the oral health condition, dental caries remains one of the major general health problems in Brazil, affecting each and every person of all age groups and also socio-economic strata (8)

Eating habit is important rolls of generating dental caries many people have many choices of eating habits. General rezones of creating caries suggested by Ayele FA and Ritter AV. The many times intake of sweets, dry mouth, and poor oral hygiene increase the chances for cavities (9)

2. Material and Method

A cross sectional study was conducted on urban and Rural area. We include first standard class and eight standard children's respectively. The participants were approached and asked if they would like to take part in a study on local child dental health and nutrition program me. In this study we utilized a dental assessment of the number of caries in first standard class and eight standard children's. we take interview and collect information or data from their parents. We collected from in which two types of question first a close ended –and open ended. The study was conducted over a Three month.

Study period:- during the 15 Dec 2018 to 15 Mar 2018.

Inclusion criteria

1) Both males and females

2) Children's of age four years and five years old

Exclusion criteria

1) Any other co-morbid medical/surgical illness.

Sample Size

According to the reference article Hiremath A, Murugaboopathy V, Ankola AV, Hebbal M, Mohandoss S, Pastay P., Prevalence of Dental Caries Among Primary School Children of India - A Cross-Sectional Study, Journal of Clinical Diagnostic Research 2016 Oct;10(10):ZC47-ZC50

Prevalence of dental caries in india 78.9% p=78.9%, q= (100-p) =100-78.9 = 21.1% d= error= 7%. α = Level of significance = 5%. Z = 2.58 Sample size $n = \frac{z^2 pq}{d^2}$ Sample size n = 131

Therefore here we 150 patients enrolled in this study. Types of Data:- Secondary Data

Statistical Methods:-

Data were tabulated and analysed using statistical package for social sciences (SPSS)version 20.The results were expressed in terms of mean and Standard Division. Significances of differences between mean was calculated with unpaired student 't' test., qualitative data was analysed chi square test. The p value i.e. p<0.005 was considered as statistical significances.

3. Results

The present study was conducted to assess the dental caries status and what are the needs to improvement dental caries of the school children of satara district. The overall mean dmft of the study population was 14.8 in urban area and mean dmft was 15 rural area.

Table 1: Gend	er wise allocation	of a Student's
---------------	--------------------	----------------

1 yeares Student		
Urban	Rural	
84(56%)	92(61.33%)	
66(44%)	58(38.66%)	
150	150	
	Urban 84(56%) 66(44%) 150	



Figure 1: Region wise allocation of gender

Table 2: Distribution of fami	ly members	in family
-------------------------------	------------	-----------

	1st Student		
No. of members in family	Urban Rural		
4	25(16.66%)	22(14.66%)	
4-7	91(60.66%)	59(39.33%)	
7-10	25(16.66%)	53(35.33%)	
10<	9(06%)	16(10.66%)	

We can observed that, number members in family minimum three to four members in each family 25(16.66%) in urban, 22(14.66%) in rural and majority No. of members family members 16(10.66%) in rural area. we can say that joint family in rural area is greater than urban area. Majority numbers of Nuclear family observed not only urban area but also rural area because of the changeless in cultural.





Table 3: Classification of Fathers Education	ons
--	-----

Father	1st Student		
Education	Urban	Rural	
Up to 10 Std	28(18.66%)	56(37.33%)	
Up to 12 th Std	45(30%)	47(31.33%)	
Up to U.G	28(18.66%)	24(16%)	
Up to P.G	32(21.23%)	13(8.66%)	
Above P.G.	17(11.33%)	10(6.6%)	

Volume 7 Issue 12, December 2018

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

International Journal of Science and Research (IJSR) ISSN: 2319-7064 Index Copernicus Value (2016): 79.57 | Impact Factor (2018): 7.426

Table 4: Classification of Fathers Educations					
Mother Education	1 Student				
Mother Education	Urban	Rural			
Up to 10 Std	41(27.33%)	79(52.66%)			
Up to 12 th Std	36(24%)	45(30%)			
Up to U.G	24(16%)	14(9.33%)			
Up to P.G	31(20.66%)	8(5.33%)			
Above P.G.	18(12%)	4(2.66%)			
Mean ±SD	30±9.19	30±31.7			

Table 4: Classification of Fathers Educations

We can observe level of education of an mothers much greater in urban area as competer to the rural area. The mother education was an important factor in dental care. There was significant difference between SD of an level mother education in urban with mean and SD (30. \pm 9.19) was much greater as camper to level mother education the rural (30. \pm 31.7). Corresponding F value 11.954 and p value 0.0339.

 Table 5: Allocation of sugar in take

Sugar ingestion	1st Student		
	Rural	Urban	
1	86(57.3%)	68(45.33%)	
2	42(28%	34(22.66%)	
3	02(1.3%)	05(3.33%)	
4	04(2.6%)	05(3.33%)	
5	16(10.6%)	38(25.33%)	
Total	150	150	
Mean ±SD	30±35.12	30±26.33	
P value	.0999ns		

We camper sugar intake of all student in first standers students was not significant. There was significant differences between the two standardize deviation in student in urban area and rural area.

Table 6: DMFT score against urban area and rural area in first standard class.

dmft	1st Student				
dmit	Urban	Rural	Results		
0	38	27			
1	27	49			
2	22	37			
3	26	9			
4	8	18			
5	4	5	t value 0.02972 and		
6	10	3	corresponding p value		
7	4	0	0.3357 not significant		
8	6	0]		
9	3	2]		
Mean	14.8	15]		
S.D	12.39	17.29			
P value	0.0044	0.0227]		



We find out overall dmft score against urban area and Rural area in first standard class. We can seen there was significant difference between in each group such as in urban dmft score (14.8 ± 12.39) similarly way in urban dmft score (15 ± 17.29) . We observe that there were not significant differences in DMFT Score between both area.

Secondin take	1st Student(Rural)				
Sager III take	0-3	4-7	07-10		
1	25	35	11		
2	8	7	3	5.528	
3	4	5	5	with 8 d.f.	0.7000
4	03	3	3	Not significant	
Not Response	14	15	10		

Table 8: Allocation of dmft score in urban

Sugar in taka	1st Student(Urban)				
Sugai ili take	0-3	4-7	07-10		
1	20	30	10		
2	8	7	3	10 470	
3	3	5	1	10.4/9 Wit o u.i	0.0179
4	10	7	0	nighty significant	
Not Response	10	15	17		

We can compeer consumption of sager in highly significant in urban area as compeer to the rural area hear we had use the chi square test 18.479 with 8 d.f and corresponding p value 0.0179.

Table 9: Distribution of dmft score with help of Processed
food in urban

Processed food	1st Student(Urban)				
	0-3	4-7	07-10	Chi square value	
1	7	7	4		
2	9	7	0		
3	10	4	5	32.18 with 18 d. f Significant with	
4	10	3	0		
5	07	8	5		
6	15	2	4		
7	10	0	2	p value 0.0479	
8	5	4	0		
9	8	2	0		
Not Response	7	3	2		

Volume 7 Issue 12, December 2018 www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

10.21275/ART20194031

 Table 10: Distribution of dmft score with help of Processed

 food in Pural

100d in Kulai							
Processed food	1st Student(Rural)						
	0-3	4-7	07-10	Chi square value			
1	7	7	4				
2	9	7	0				
3	10	4	5	26.15 with 18 d.f significant 0.0957			
4	10	3	0				
5	7	8	5				
6	10	02	5				
7	10	0	4				
8	5	4	2				
9	8	2	0				
Not Response	7	3	2				
				•			

We have to observed that consumption of processed food both region is high because of changes in life styles.

4. Discussion

In this survey document point out some factors discuses in details, studies carried out so far on the effects of screening children for dental caries given conflicting results. Important part need to be addressed dental care to the parents and also participates. The effectiveness of screening, dental caries optimal ages that is five to six years olds students and intervals for screening children, cost effectiveness of screening, or the effects of treatment in childhood outcomes following positive screening results. We scorning all the children's asking question regarding their habits that is intake sugar per day, intake of processed food such as chips, berger, etc. Rezones for conducting this study to implement problems regarding dental caries. Dental caries was major problems in child hood stage. We calculated dmft score of all participants and score dividing in three stages. dmft score dividing in three types low medium high. Such as one to three we considered low score four two six considered medal score six and above considered high score respectively. Included factors such as father's education, mother's educations, numbers of family members in house. General observation in this study theirs was significant differences dental caries in urban and rural region. Day by day food habits changes similarly way we observed changes lifestyles. Final we can say that, there was not significant differences in dmft score. If there was significant differences in dmft score than find out the rezones about that.

5. Conclusion

We can conclude that in dmft score there was no changes in urban and rural. There were not statistical significant differences in dmft score in urban and rural rural area.

6. Acknowledgment

Authors are thankful to the Research Director, Krishna Institute of Medical Sciences deemed to be university Karad also grateful to staff of research director for their cooperation for in this study.

References

- [1] Hiremath A, Murugaboopathy V, Ankola AV, Hebbal M, Mohandoss S, Pastay P., Prevalence of Dental Caries Among Primary School Children of India - A Cross-Sectional Study, J Clin Diagn Res. 2016 Oct;10(10):ZC47-ZC50.
- [2] Nanna Jürgensen ¹ and Poul Erik Petersen¹, Oral health and the impact of socio-behavioural factors in a cross sectional survey of 12-year old school children in Laos. BMC Oral Health 2009, 9:29
- [3] Sheiham A: Dental caries affects body weight, growth and quality of life in pre-school children. Br Dent J 2006, 201:625-626.
- [4] Petersen PE, Hoerup N, Poomviset N, Prommajan J, Watanapa A. Oral health status and oral health behaviour of urban and rural schoolchildren in Southern Thailand. Int Dent J. 2001;51:95–102Wang HY, Petersen PE, Bian JY, Zhang BX. The second national survey of oral health status of children and adults in China. Int Dent J. 2002;52:283–290. [PubMed]
- [5] Peng B, Petersen PE, Fan MW, Tai BJ. Oral health status and oral health behaviour of 12-year-old urban schoolchildren in the People's Republic of China. Community Dent Health. 1997;14:238–244.[PubMed]
- [6] Petersen PE, Esheng Z. Dental caries and oral health behaviour situation of children, mothers and schoolteachers in Wuhan, People's Republic of China. Int Dent J. 1998;48:210–216
- [7] Narvai PC, Frazão P, Roncalli AG, Antunes JLF. Cárie dentária no Brasil: declínio, polarização, iniquidade e exclusão social. Rev Panam Salud Publica 2006;19:385-93. 5.
- [8] Cardoso L, Rösing C, Kramer P, Costa CC da, Costa Filho LC. Polarização da cárie em município sem água fluoretada. Cad Saúde Pública 2003;19:237-43
- [9] Ritter AV. Dental caries talking with Patients. J Esthet Restor Dent. 2004;16:76. doi: 10.1111/j.1708-8240.2004.tb00460.

10.21275/ART20194031