North Asian International Research Journal of Social Science & Humanities

ISSN: 2454-9827 Vol. 5, Issue-4 April-2019

IRJIF: 3.015

Index Copernicus Value: 57.07 Thomson Reuters ID: S-8304-2016

A Peer Reviewed Refereed Journal

# STUDY OF DMFT SCORE ON SCIO BEHAVIORAL PATTERNS IN URBAN AND RURAL AREA

**MAHENDRA M. ALATE [1*], MR. JAI GANDHI [2], DHIRAJKUMAR A.MANE [3], S. V. KAKADE[4]**

*1* 3, Director of Research office, KIMSDU,4Department of Community Medicine,2department of conservative dentistry's ,Krishna Institute of Medical Sciences "Deemed To Be University",Tal :- Karad ,Dist Satara, (Maharashtra) India. 415110*

**Correspondence *Author*:** *- Mahendra M. Alate Statistician, Krishna Institute of Medical Sciences "Deemed To Be University", Karad (Maharashtra) 415110 India. Ph:-9604050941*

***Abstract***

***Background:- Human life in which oral health is inseparable part of the body. Oral health in which intake of food, clinging of mount was important roll. We are studied the oral health statues eighth standard student with help of primary data. Aim: To assess the factors affecting on DMFT Decayed Missing Failure Teeth Scores fourteen years and fifteen years old school children Objective:-i) Find out dmft score children Scores fourteen years and fifteen years old school children ii) Find out correlation between dfmt score with Scio behavioral patterns Results:- We finding DFMF scores in urban(14.9±15.27)and rural (15±16.097) correlation between DMFT scours with Scio behavioral parameters was positive. Intake of chocolate, cold drink, processed food were associated to DMFT Scour. Conclusion: - DMFT scores was not same incommodity. We observed in eating habits, educational development, educational facility, economically this factors affected on dental caries in urban and rural area.***

***Key-Words*: DMFT, Eating habits, Education**

## Introduction

Human life is god gift as compeer to the all the living organism. Human health in which important role of oral health. Occurrences of dental caries it is one kind of dispersion in teeth. Many others suggested about Dental caries problem created in most of industrialized developing countries. Developing countries focusing dental caries in school children . Dental caries most extensive non communicable disease (NCD).Oral health is can be defined as a state of the mouth and its associated structures, where there is no disease or pain and able to gathering well to masticate food and state of teeth which are of a socially suitable appearance [1]. Oral health is asymptotical integral to general health. According to the WHO survey report ,dental caries most common among the spectrum

of oral diseases and are still a major public health burden in developing countries, affecting 60%-90% of school children and a number of adults [2].

In Jammu & Kashmir study done on dental caries showed that gender had no relationship with dental caries [3]. However, some investigators suggested , male child was one of the predictors of dental caries, boys were more inclined to develop dental caries as compared with the girl child, as it may be due to males being given precedence in Indian perspective [4] In girl children were more on verge of producing dental caries as compared with the boys because girls have an early flare-up of teeth as compared with the boys, which results in longer time contact with the oral environmental factors which leads to dental caries[5].

The socioeconomic status of a family plays conman roll in developing countries as well as dental caries among preschool children. In Sudan conducted study showed a similar result that the socioeconomic status plays no role in dental caries[6]. One of the a study conducted in Brazil observer that, little socioeconomic status had a positive relationship with dental caries and the probable reason could be the reluctance to reward the dental services, and poor awareness about the good oral hygiene practices[7,8].

Oral diseases are one of the common health problems among individuals of an all age group with mental disabilities. The prevalence and severity of oral disease among 5–12-year-old children's are higher as compared to the general population [9]. The rezones of creating oral disease due to the low physical abilities with subsequent difficulty in maintaining oral hygiene, these children's have poor oral cleanliness also not proper knowledge or not proper standard procedures about the oral cleanliness [10,11]

According to the WHO report approximate 3.58 billion people surviving the dental problems till date . In total population half of the population surviving dental caries. In interned world low-income countries and also developing countries increasing trend in dental caries among school children. In particularly observed age group 12-year olds to 18 year olds that is children of 1$^{st}$ standard to 6$^{th}$ 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. [12] Very few of study conducted on the how oral health is associated with socio-behavioral factor.

The epidemiological information of an East Asian countries, we comparing to the naber hood countries such as China and Thailand [13] . In finding a mean scores of 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 [14,15] .

## Material and Method

It was community based observational study was conducted on urban and Rural area. We include 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

Data from their parents. We collected from in which two types of question first a close ended and open ended. The study has been done a period of Three month. We have taken permission Institutional committee, of Collage.

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

**Inclusion criteria:-**

1. Both males and females
2. Children's of age fourteen years and fifteen years old

**Exclusion criteria:-**

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

**Sample Size:-** Study was conducted on eight standard class or school going children's using convenient sampling technique. Total 400 students are enrolled in this study.

**Types of Data:-** Secondary Data

**Statistical Methods:-** Data were tabulated and analyzed using statistical package for social sciences (SPSS) version 20.The results were expressed in terms of Descriptive Statistics Such As mean stander deviation ,correlation. The significances of differences considered in the form of p value ie ($p<0.005$)

## Results

The present study was conducted in rural and urban area. To assess the dental caries status and what are the needs to improvement dental caries of the school children of satara district in urban and rural area respectively.

**Table No:-01 Distribution of Scio Behavioral parameters**

| **Gender** | | |
|---|---|---|
| | Urban | Rural |
| Male | 81(54%) | 83(55.33%) |
| Female | 69(46%) | 67(44.33%) |
| **Family member** | | |
| 4 | 27(18%) | 22(14.66%) |
| 4-7 | 85(56.66%) | 79(52.66%) |
| 7-10 | 20(13.33%) | 27(18%) |
| 10< | 21(14%) | 22(14.66%) |
| **Father Education** | | |
| Less than $10^{th}$ | 32(21.33%) | 49(32.66%) |
| $10^{th}$ to $12^{th}$ | 33(22%) | 44(29.33%) |
| Under graduate | 21(14%) | 24(16%) |
| Post graduate | 41(27.33%) | 22(14.66%) |
| Above Post graduate | 22(14.66%) | 11(7.33%) |
| **Mothers Education** | | |
| Less than $10^{th}$ | 46(30.66%) | 72(48%) |
| $10^{th}$ to $12^{th}$ | 31(20.66%) | 47(31.33%) |
| Under graduate | 23(15.33%) | 13(8.6%) |
| Post graduate | 36(24%) | 14(9.33%) |
| Above Post graduate | 14(9.3%) | 4(2.6%) |

We can observe in Table 1 scio demographic characteristics level of education of an mothers much greater in urban area as compeer to the rural area in P.G and U.G. level. But we can see percentage of $10^{th}$ and above that is up to $12^{th}$ level of education much greater in rural area .The mother education was an important factor in dental care because she is always taking care of child from the birth . Number of family members are also important role in taking care of the child at age. We can commonly say that percentage joint family in rural area till date to the large.

**Table No:-02 Distribution of Eating habits**

| Chocolate intake | Mean | SD | P value |
|---|---|---|---|
| Rural $8^{th}$ | 2.3880 | 1.4296 | < 0.001* |
| Urban $8^{th}$ | 3.8413 | 1.920922 | |
| Processed food | | | |

| | | | |
|---|---|---|---|
| Rural 8th | 2.352941 | 1.5482 | 0.0006 |
| Urban 8th | 3.076923 | 2.0148 | |
| Sugar intake | | | |
| Rural 8th | 1.514706 | 0.7402 | 0.2225 |
| Urban 8th | 1.619048 | 0.7574 | |
| Cold drink consumption | | | |
| Rural 8th | 1.335821 | 1.1822 | <0.0001* |
| Urban 8th | 2.402878 | 1.3973 | |

*Note:-* indicating significant*

Table no 02 Shows eating habits in daily life. Day by day human life styles changes similarly we can observe that, changes in eating habits. We are considering four factors observing generation of dental caries. The consumption of sugar in day in terms spoons of was not significant. Generally we can say that, there was no variation in consumption of sugar in urban and rural area. Eating habit changes in which role of processed food are major roll. Consumption of chocolate, cold drink its common need of children's. There was significant differences observed in intake of chocolate, cold drink between in urban and rural area.

**Table No:-03 Brushing in day habits**

| Brushing in 24 Hrs | 1times | 2times | Total |
|---|---|---|---|
| Rural 8th | 130(86.66%) | 20(13.33%) | 150 |
| Urban 8th | 119(79.33%) | 31(20.66%) | 150 |

One of the most important thing was asking one question to over all students how may times you are brushing in day or in between 24 hours? We analyze that, in rural area bruising habits was not proper guideline and also continuity. There for we can say that, Need for dental workshop as well as dental awareness community progrmme in rural area.

**Table No:-04 Distribution of DMFT Scores**

| DMFT | | |
|---|---|---|
| | Urban | Rural |
| 0 | 45 | 27 |
| 1 | 28 | 39 |
| 2 | 32 | 43 |
| 3 | 12 | 11 |
| 4 | 15 | 17 |
| 5 | 9 | 8 |
| 6 | 6 | 2 |
| 7 | 0 | 1 |
| 8 | 1 | 0 |

| 9 | 1 | 2 |
|---|---|---|
| Mean | 14.9 | 15 |
| S.D | 15.279 | 16.097 |
| P value | 0.0065 | 0.0082 |

We finding DMFT Score with help of format, DMFT scourers can be categories in two 9th part as shown in above table no 4. Comparing difference between the two means with help of the unpaired test. There was not significant differences between the DMFT scourers in urban and rural area respectively.

**Table No:-05 Correlation between DMFT Score with Scio Behavioral Patterns**

| Pearson Correlation | DMFT Score | Age | Types of residency | Fathers Education | Mother Education | Chocolate intake per day | Sugar in take from milk | taken of Processed food | Brushing habits |
|---|---|---|---|---|---|---|---|---|---|
| Age | 0.05 | 1 | 0.123 | -0.026 | -0.092 | -0.028 | 0.055 | -0.025 | -0.089 |
| Types of residency | 0.011 | 0.123 | 1 | -0.017 | 0.3 | 0.3 | -0.027 | -0.124 | 0.025 |
| Fathers Education | -0.045 | -0.026 | -0.017 | 1 | 0.012 | -0.067 | -0.07 | 0.042 | 0.041 |
| Mother Education | -0.078 | -0.092 | 0.3 | 0.012 | 1 | 0.276 | -0.007 | -0.012 | 0.061 |
| Chocolate intake per day | -0.081 | -0.028 | 0.3 | -0.067 | 0.276 | 1 | 0.079 | -0.059 | 0.01 |
| Sugar in take from milk | 0.03 | 0.055 | -0.027 | -0.07 | -0.007 | 0.079 | 1 | 0.088 | 0.091 |
| Processed food | -0.005 | -0.025 | -0.124 | 0.042 | -0.012 | -0.059 | 0.088 | 1 | 0.082 |
| Brushing habits | -0.246 | -0.089 | 0.025 | 0.041 | 0.061 | 0.01 | 0.091 | 0.082 | 1 |
| DMFT Score | 1.000. | 0.196 | 0.426 | 0.22 | 0.09 | 0.082 | 0.307 | 0.468 | 0 |

We observe all this study variables an concluded that, age, types of residency, fathers education, mother education having positive correlation. Eating habits most of the important factors in dental care. There was no restriction to eating which types of food taken to control dental caries. Some privation to be need full to taking teeth cline.

## Discussion

In this study we find out the DMFT scours. We studied some factors affected on dental cares. The correlation between DMFT scours and eating habits such as chocolate, cold drink, processed food are positively correlated. Studies carried out in urban and rural area for comparing effects of dental caries among eight stander children.

In western Maharashtra similar kind study can be done, among 5–12-year-old children. The overall mean decayed and filled teeth and DMFT scores were (3.53 ± 1.02) over all the populations. According to DMFT scours there is a high percentage of dental treatment needs required for these children which reflect the barriers to access and utilize oral health care among these children [12]. In ours study There was not significant differences between the DMFT scourers in urban (14.9±15.279) and rural (15±16.079) area respectively.

Dental caries was major issue in child hood stage. Day by day food habits changes as will changes lifestyles. At child age treating proper dental caries the teeth should be clear. We are enrolled 14$^{th}$ and 15$^{th}$ years old students, that is eight stranded students. We are discussed to the all the children's about habits, life styles that is intake sugar in terms of spoons in milk or taking tea in a day , consumption of Processed food such as chips , berger ect. Rezones for conducting this study to implement problems regarding dental caries. The limitations of the study was not all age group of students not enrolled in this study due to limitations of times .others clinical parameters not enrolled due to the some clinical diagnosis test in community.

Over all this survey . In 21 th censures development of village was not as good as after gating freedom of India. we can analyzed most important thing all students needs to attending workshop on knowledge, and practices about mouth washing . there was less numbers of recourses for guiding to taking care. we observed that, there was not significant differences in dmft score in urban and rural school going children's . In community need for dental awareness progrmme for taken care of teeth.

## Conclusion

We can conclude that, dmft score in which there was no changes in urban and rural area. There was statistical significant differences in eating habits in urban and rural rural area due to some rezones such as, the development of village, economically states of family. The correlation between DMFT Scores and some of the scio behavioral variables was positive.

**Acknowledgment: -** Authors are thankful to the Research Director and all a staff of research office. Krishna Institute of Medical Sciences deemed to be university, Karad for their cooperation in this study.

## References

1. Yewe-Dyer M. The definition of oral health. Br Dent J. 1993;174(7):224–25.
2. Petersen PE, Bourgeois D, Ogawa H, Estupinan-Day S, Ndiaye C. The global burden of oral diseases and risks to oral health. Bull World Health Organ. 2005;83(9):661–69
3. Shah AF, Batra M, Aggarwal V, Dany SS, Rajput P, Bansal T. Prevalence of early childhood caries among preschool children of low socioeconomic status in district Srinagar, Jammu and Kashmir. Int Arch Integr Med 2015; ;2(3):7-8
4. Mahejabeen R, Sudha P, Kulkarni SS, Anegundi R. Dental caries prevalence among preschool children of Hubli: Dharwad city. J Indian Soc Pedod Prev Dent. 2006 Mar;24(1):19–22
5. Kurian J, Renganathan S, Gurusamy K, Shivashankarappa PG. Association between early childhood caries and age and gender specific height, weight and mid upper arm circumference of school children in Puducherry—"a comparative study" Biol Med Eng Sci Rep. 2016;2(1):13–17
6. Awooda EM. Caries prevalence among 3-5 years old children in Khartoum state—Sudan. Innov J Med Heal Sci 2013;3(2):42-44.

7. Correa-Faria P, Martins-Junior PA, Vieira-Andrade RG, Marques LS, Ramos-Jorge ML. Factors associated with the development of early childhood caries among Brazilian preschoolers. Braz Oral Res 2013; Jul;27(4):356-362.
8. Vinay K Chugh, Kushal K Sahu, Ankita Chugh ,Prevalence and Risk Factors for Dental Caries among Preschool Children: A Cross-sectional Study in Eastern India, Int J Clin Pediatr Dent. 2018 May-Jun; 11(3): 238–243.
9. Atsuo A, Murakami J, Akiyama S, Morisaki I. Etiologic factors of early onset periodontal disease in down's syndrome. Jpn Dent Sci Rev 2008;44:118-27.
10. Ivancić Jokić N, Majstorović M, Bakarcić D, Katalinić A, Szirovicza L. Dental caries in disabled children. Coll Antropol 2007;31:321-4
11. Hennequin M, Faulks D, Roux D. Accuracy of estimation of dental treatment need in special care patients. J Dent 2000;28:131-6
12. 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.
13. 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.
14. 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
15. KM Shivakumar**,** Snehal Patil**,** Vidya Kadashetti**,** Vaishali Raje, Oral health status and dental treatment needs of 5–12-year-old children with disabilities attending special schools in Western Maharashtra, India, Int J basic applied res.2018;8(1):24–29