

# Prevalence of Dental Health Problem among School Children of Churu District, Rajasthan

Arvind Kumar Nain<sup>1</sup>, Shatrughan Pareek<sup>2</sup>

## How to cite this article:

Arvind Kumar Nain, Shatrughan Pareek/Prevalence of Dental Health Problem among School Children of Churu District, Rajasthan/Indian J Dent Educ. 2022;15(2):41-44.

## Abstract

**Introduction:** Dental problems can be prevent and control if identified at an as soon as possible. Anydental issue has a detrimental effect on a pattern of eating and speaking. The health and well-being of school age children has become a high profile issue, lying at the heart of numerous government initiatives and policies and receiving considerable public attention. The present study was conducted with aim to evaluate the prevalence of dental health problem among school children of Churu District, Rajasthan State, India.

**Methodology:** In present study, the research approach was cross-sectional approach. Samples were selected by convenient sampling technique and help of assessment Performa. In the study total 301 school children were included. The data was analyzed with help of SPSS-20 version.

**Results:** In the present study, majority of participants were male 75% (227) followed by 25% females. The study revealed that the prevalence of dental problem was 62.12%. Out of 187 (62.12%) school children, 57.75% (108) have dental caries, 20.32% (38) have tooth flurosis, 10.16% (19) have malocclusion, 6.95% (13) have plaque and tartar and 4.81% (9) of the school children have gum disease (gingivitis).

**Conclusion:** The study concluded that prevalence of dental health problem among school children was high. It is important to detect dental problems in early phase through regular dental check ups and avoid further complications and cost of treatment. Oral health can offer clues about your overall health. It helps the teachers to promote and encourage good oral health among the students.

**Keywords:** Dental health problem; Prevalence; School children; Rajasthan.

**Author's Affiliation:** <sup>1</sup>Nursing Officer, Rajasthan Health Services, Churu 331001 Rajasthan, India, <sup>2</sup>Senior Nursing Superintendent, Department of Nursing, Indian Railway Health Services, Bikaner 334001 Rajasthan, India.

**Corresponding Author:** Arvind Kumar Nain, Nursing Officer, Rajasthan Health Services, Churu 331001 Rajasthan, India.

**E-mail:** arvindnain1991@gmail.com

**Received on:** 07.06.2022

**Accepted on:** 13.06.2022

## INTRODUCTION

The school age child has multitude of problems among them, one of the most existing problem is related to dental health. Oral health is an inseparable part of general health. India as developing country faces many challenges in rendering oral health needs. The majority of Indian population resides in rural communities. The prevalence of dental caries among school going children is 60% to 90% in Asia.<sup>1</sup> An epidemiological investigation was

carried out to know the prevalence of Dental caries among 1257 children in the age group of 6-15 years respectively attending schools in Cuttack city. The result showed that the prevalence of dental caries was 68.3% and pattern of occurrence revealed that prevalence consistently increased from 6 years to 8 years age group and subsequently decreased at 11 and 15 years. Regarding treatment needs 63.6% children required dental treatment for various reasons and it is in accordance with dental caries prevalence of different age groups.<sup>2</sup> Children <18 years constitute about 40% of the Indian population. There is lack of organized school health programs in our country. The children in schools are relatively easily accessible, compared to any other population groups for any health promotion programs aimed at effecting the lifestyle changes. School health programs have proved effective in promoting health in many developed countries.<sup>3</sup> Therefore, the present study was conducted with aim to evaluate the prevalence of dental health problems among school children of Churu District, Rajasthan State, India.

## METHODOLOGY

The present cross sectional study was conducted among school children in selected schools of Churu district, Rajasthan. The study was conducted among the 9th Class students studying in Modern Prince Senior Secondary School and Tagore Senior Secondary School Taranagar, Churu, Rajasthan. In the study, 301 school children were selected by convenient sampling technique. The data collection was done with help of demographic profile and structured dental problem questionnaire. Ethical clearance was obtained from the concerned authority. The study participants were assured that the obtained findings would be used for the research purpose only.

## STATISTICAL ANALYSIS

The data obtained was tabulated and analyzed in terms of the objectives of the study by using descriptive statistics. Frequency and percentage distribution were used to describe the socio-demographic data and prevalence of dental health problems. The analysis was done with help of SPSS version 18.0.

## RESULTS

In present study, 301 school children were recruited for the data collection process. In age distribution, majority of the students (45.18%) were between 14 to 15 years followed by 28.90% were from 12 to 13 years. Around on fourth students were from 16-17 years. Out of 301 students, the most of students (75.41%) were male while remaining 24.58% were females. In terms of mother's educational status, majority of them (32.95%) were having primary education followed by 30.89% were illiterate. Only 6.31% mothers were having graduation and above education. In terms of father's occupational status, majority of them (40.20%) were farmer followed by 31.90% were in private job. Only 13.95% fathers were having government job. According to table-2, dental check-up of 301 students was conducted. The findings communicated that the dental problem was 62.12% (187) of a total strength of students. Remaining 37.88% (114) had maintain oral hygiene and teeth (no dental problem). As per table-3, out of 187 students, 57.75% of the students have tooth decay/caries problem, 20.32% of students have tooth flurosis problem, 10.16% of the students have malocclusion, 6.95% of the students have plaque and tartar and 4.81% of the students' gum disease (gingivitis) present (Figure-2).

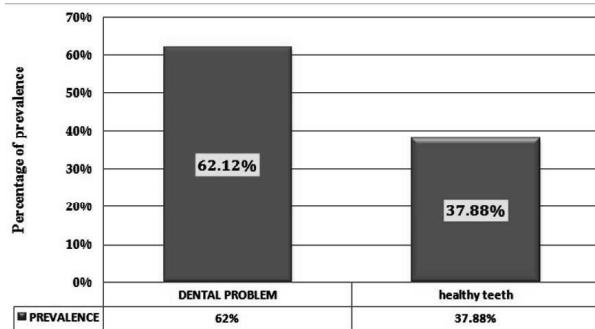
**Table 1:** Frequency and percentages distribution of demographical characteristics.

N=301		
Sample Characteristics	No. of Samples (f)	Percentage
<b>Age (in Years)</b>		
12-13	84	28.90
14-15	136	45.18
16-17	76	25.24
18-19	5	1.66
<b>Gender</b>		
Male	227	75.41
Female	74	24.58
<b>Educational Status of Mother's</b>		
Illiterate	93	30.89
Primary	98	32.55
Secondary	52	17.27
Senior secondary	39	12.95
Graduate or above	19	6.31
<b>Occupation (Father's)</b>		
Farmer	121	40.20
Govt. Service	42	13.95
Private Service	96	31.89
Other	42	13.95

**Table 2:** The prevalence of dental health problem among school children.

N= 301

Dental Health problems	Frequency	Percentage
Present	187	62.12%
Absent	114	37.88%

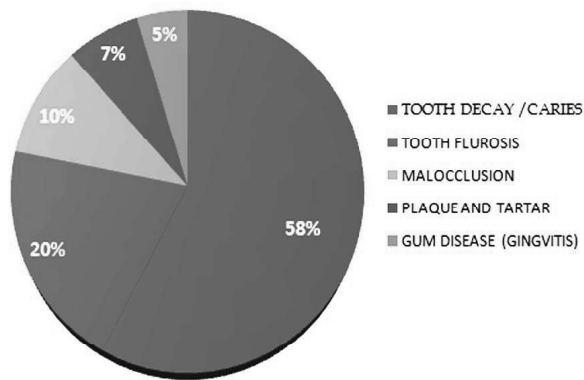


**Fig. 1:** The percentage distribution of prevalence of dental problem.

**Table 3:** Distribution of various dental health problems among the school children.

N= 187

Dental health problems	Frequency	Percentage (Rank)
Tooth Decay /Caries	108	57.75
Tooth Flurosis	38	20.32
Malocclusion	19	10.16
Plaque and Tartar	13	6.95
Gum Disease (Gingivitis)	09	4.81



**Fig. 2:** Distribution of different types of dental health problems among students.

## DISCUSSION

The present study revealed that overall prevalence of dental health problems was 62.12% in context to our study, Eddula RR et al (2019) stated that prevalence of dental health problems was 77.41% among school children.<sup>4</sup> Another study by Hussaini,

Set al (2017) conducted a study among 333 students. Overall prevalence of dental problems was 58.86% among the children.<sup>5</sup> This finding was in support of our findings. In contrast to our findings, a study carried out by Kumar and Joshi (2017) showed 37.7% of school children had dental problem and the prevalence was high in the 10 to 12 years old children.<sup>6</sup> Out of 187 children, the prevalence of dental caries was 57.75% among the students. In this context, studies by Hiremath A et al and Datta P and Datta PP highlighted that prevalence of dental caries were 78.9% and 72% respectively.<sup>7-8</sup> These results were more than our findings. A study by Prabakar J et al highlighted that prevalence of caries was 47.3%.<sup>9</sup> Additionally, our findings also revealed that prevalence of other dental problems like tooth flurosis was 20.32%, malocclusion was 10.16%, plaque and tartar were 6.95% and gingivitis was present among 4.81% students. In this context, a study communicated that deposits, gum disease and cavities were found to be 41.4%, 26.72% and 22.22% respectively in the total sample. The prevalence of caries in the age groups was found to be 44.4% in 11-13 years, 58.82% in 14-15 years 67.79% in 16 and above.<sup>5</sup> The prevalence of dental caries was higher among the children.<sup>10</sup> Our study points out that higher prevalence of dental problems are not good for school children.

## CONCLUSION

Dental health is a significant public health problem in India, The primary objective of dental health education is to motivate individuals to seek the goal of disease prevention. India is a developing country, faces poor oral health because there are many challenges in providing oral health needs. Health policy and programme implementation to preventive measure like: oral health and dental awareness in children at early age through regular school dental health check-up.

**Funding:** Self funded

**Interest of conflict:** Nil

## REFERENCES

1. Arvind Kumar, Shatrughan Pareek.Evaluation of Knowledge and Practices Towards Dental Health Among School Students in Rajasthan: A Community-Based Study, Indian J Dental Edu 2018;11( 4): 91-95
2. Majumdar KK. Health impact of supplying safe drinking water containing fluoride below permissible level on flourosis patients in a fluoride-

- endemic rural area of West Bengal. *Indian J Public Health*. 2011;55:303-8.
3. Sukhabogi, Shekar, Hameed, Ramana, Sandhu, et al. Oral Health Status among 12- and 15-Year-Old Children from Government and Private Schools in Hyderabad, Andhra Pradesh, India, *Ann Med Health Sci Res* 2014;4(3):272-273.
  4. Eddula Rajendra Reddy, Palaparthi Rajababu, Pavan Uday Patil, Shehnaz Sultana, Penagaluru Pardhanandana Reddy, S.V. Ramprasad. A study on the dental health of urban government school children in Telangana. *Int J Contem Medi Res* 2019;6(4):D20-D24.
  5. Hussaini, S., Bendigiri, N, Swati, I. A study on the dental problems of school children. *Int J Community Medi Pub Health*, 2017;3(5):1090-1093. doi:<http://dx.doi.org/10.18203/2394-6040.ijcmph20161363>
  6. Kumar R, Joshi D. Awareness of dental hygiene amongst the primary school children of low socioeconomic strata. *Int J ContempPediatr* 2017;4:28-35.
  7. 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;10(10):ZC47-ZC50. doi:10.7860/JCDR/2016/22474.8642
  8. Datta P, Datta PP (2013) Prevalence of Dental Caries among School Children in Sundarban, India. *Epidemiol* 3:135. Doi: 10.4172/2161-1165.1000135
  9. Prabakar J, John J, Srisakthi D. Prevalence of dental caries and treatment needs among school going children of Chandigarh. *Indian J Dent Res* 2016;27:547-52
  10. Kola Srikanth Reddy, Sivakalyan Reddy et al. Prevalence of dental caries among 6-12 years school children of Mahbubnagar District, Telangana State, India: A cross-sectional study. *Indian J Dental Sci* 2017;9(1):1-7.
- 
-