



## RATIONALE FOR SEEKING DENTAL CARE IN PEDIATRIC POPULATION OF RURAL NAGPUR, INDIA

<b>Sneha Khekade*</b>	Post graduate Student, Department of Pedodontics and Preventive Dentistry, Swargiya Dadasaheb Kalmegh Smruti Dental College and Hospital, Nagpur, Maharashtra, India. *corresponding Author
<b>Shweta Chandak</b>	Reader, Department of Pedodontics and Preventive Dentistry, Swargiya Dadasaheb Kalmegh Smruti Dental College and Hospital, Nagpur, Maharashtra, India.
<b>Pankaj Chavhan</b>	Senior Lecturer, Department of Pedodontics and Preventive Dentistry, Swargiya Dadasaheb Kalmegh Smruti Dental College and Hospital, Nagpur, Maharashtra, India;
<b>Miranda George</b>	Post graduate Student, Department of Pedodontics and Preventive Dentistry, Swargiya Dadasaheb Kalmegh Smruti Dental College and Hospital, Nagpur, Maharashtra, India.
<b>Niharika Gahlod</b>	Post graduate Student, Department of Pedodontics and Preventive Dentistry, Swargiya Dadasaheb Kalmegh Smruti Dental College and Hospital, Nagpur, Maharashtra, India.

### ABSTRACT

**Introduction:** The knowledge of epidemiological status of oral hygiene among particular population is important for planning the need and provision for paediatric service to enhance quality of life.

**Aim and objectives:** To assess the reasons for seeking dental care among pediatric dental patients of rural Nagpur. To determine the age and gender linked dental problems among children.

**Methodology:** This cross sectional study involved all the Paediatric patients visiting Department of Pedodontics and Paediatric Dentistry for a period of 1 year. Data collected was subjected to statistical analysis.

**Result:** It was observed that male child patient visited the dental hospital more than female patients. The predominant reason for the most common complaint was pain/emergency, followed by decayed teeth, unclean teeth, malaligned teeth, fractured tooth, mobility, abnormalities, and other problems.

**Conclusion:** The most common Dental problem was pain/emergency among Pediatric Dental Patients.

**KEYWORDS :** Rationale for seeking dental treatment, Age and Sex based Dental problems, Pain/emergency

### INTRODUCTION

Public Dental Health has been defined as "The science and art of preventing and controlling dental disease and in promoting dental health through community effort" by the American Dental Association. The unique characteristic of dental diseases for example dental caries, periodontitis is that they are universally prevalent and do not undergo remission or termination if left untreated and demand expertise and time consuming professional treatment.<sup>1</sup> The knowledge of epidemiological status of oral diseases among particular population is important for planning the need and provision for service to enhance quality of life. Truly relevant program in oral health could not be developed without the knowledge of disease levels and trends in various populations.<sup>2</sup> More than 50 million school hours are lost annually because of oral health problems which affect children's performance at school and success in later life. In order to assess the magnitude of the preventive task it is required to know the extent and severity of the disease.<sup>3</sup>

The current study was designed to provide a base line data regarding the average age and the most common reason for seeking dental care in pediatric population of rural Nagpur.

### AIMS AND OBJECTIVES

1. To assess the reasons for seeking dental care among pediatric dental patients of rural Nagpur.
2. To determine the age and gender linked dental problems among children.

### MATERIAL AND METHODS

The present study was conducted in the Department of Pedodontics and Preventive Dentistry. Ethical clearance was obtained from the Institutional Ethical Committee. The study was carried out over a period of one year from January 2016 to December 2016. Data was collected from a total of 11634 subjects. The patient's age, sex and the reason for seeking the dental treatment was noted. When multiple problems were present in the same person the most important one was recorded. The chief complaints were categorized as- Fractured tooth, mobility, unclean teeth, malaligned teeth, abnormalities, pain and swelling, decayed teeth and others. The pediatric population was divided according to age groups into 0-3 yrs, 4-6 yrs, 7-9 yrs, 10-12 yrs and 13-14 years.

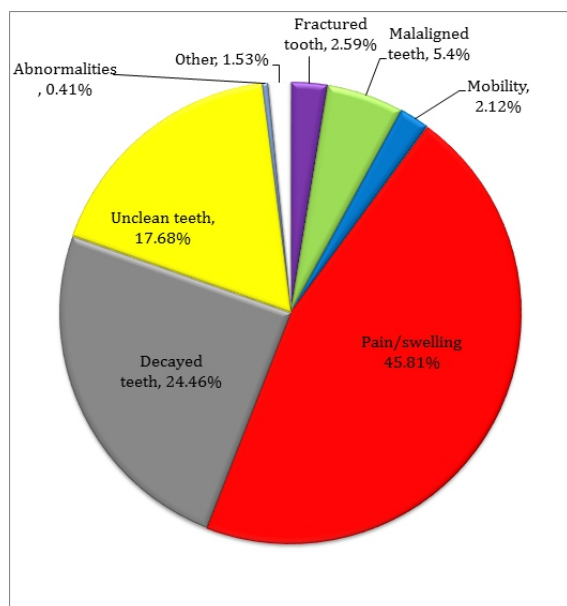
### RESULTS

A total of 11634 children (5928 male and 5676 female) made up the study population (Table I, Graph I). (Of the 11634 children examined, pain was the dominant reason observed in 5316 (45.81%) children). The 7- 12 year old was the predominant age group attending the clinic. It was observed that male child patient visited the dental hospital more than female patients. The predominant reason for the most common complaint was pain/emergency, followed by decayed teeth, unclean teeth, malaligned teeth, fractured tooth, mobility, abnormalities, and other problems. Pain/emergency was more common among 4-6 and 7-9 year olds. Dental visits due to malocclusion were more common among 12- 14 year olds.

**Table I - Distribution of children according to age and sex**

Age Group Sex	0-3	4-6	7-9	10-12	13-14	Total
Male	126	924	2199	2265	414	5928
Female	75	954	2451	1890	306	5676

**FIGURE I - FREQUENCY OF RATIONALE OF SEEKING DENTAL CARE**

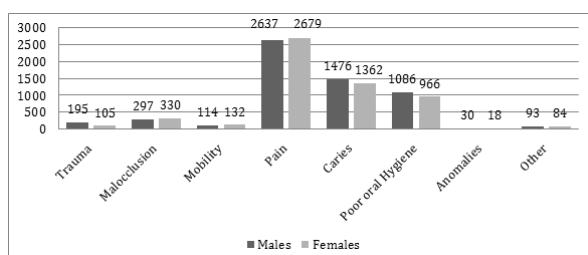


**TABLE II - AGE AND SEX WISE DISTRIBUTION OF RATIONALE OF SEEKING DENTAL CARE**

Dental Condition	Male		Female		Total		P-value
	No.	%	No.	%	No.	%	
Fractured tooth	195	65.00	105	35.00	300	2.59	p<0.01 HS
Malaligned teeth	297	47.37	330	52.63	627	5.40	p<0.05 S
Mobility	114	46.34	132	53.66	246	2.12	p>0.05 NS
Pain/swelling	2637	49.60	2679	50.40	5316	45.81	p<0.01 HS
Decayed teeth	1476	52.01	1362	47.99	2838	24.46	P>0.05 NS
Unclean teeth	1086	52.92	966	47.08	2052	17.68	P>0.05 NS
Abnormalities	30	62.50	18	37.50	48	0.41	P>0.05 NS
Other	93	52.54	84	47.46	177	1.53	P>0.05 NS

HS- Highly Significant, S- Significant, NS- Non Significant

**Graph I: - Sex wise distribution of rationale of seeking dental Care**



**Table III: - Age wise distribution of rationale of seeking dental Care**

Chief complaints	Age Group				
	0-3	4-6	7-9	10-12	12-14
Fractured tooth	21 (10.45%)	15 (00.80%)	102 (02.19%)	117 (02.82%)	45 (06.25%)
Malaligned teeth	03 (01.49%)	33 (1.76%)	177 (03.81%)	288 (06.93%)	120 (16.67%)

Mobility	09 (04.48%)	15 (00.80%)	72 (01.55%)	129 (03.10%)	21 (02.92%)
Pain/swelling	84 (41.79%)	912 (48.56%)	2343 (50.39%)	1734 (41.73%)	243 (33.75%)
Decayed teeth	63 (31.34%)	573 (30.51%)	1140 (24.52%)	954 (22.96%)	108 (15.00%)
Unclean teeth	15 (07.46%)	300 (15.97%)	705 (15.16%)	861 (20.72%)	171 (23.75%)
Abnormalities	00 (00.00%)	12 (00.64%)	24 (00.52%)	12 (00.29%)	00 (00.00%)
Other	06 (02.99%)	18 (00.96%)	87 (01.87%)	54 (01.30%)	12 (01.67%)
Total	201	1878	4650	4155	720

### STATISTICAL ANALYSIS

Chi square test on the different chief complaints and their association with gender showed that the significance value was 0.01; therefore, there was a significance relationship between the above- mentioned variables (Table II).

### DISCUSSION

This study was designed to check for the prevalence of various oral diseases and record the reasons for dental visit of children as early as the age of one through 14 year. The age was recorded in the present investigation to emphasize the fact that every individual despite his/her age may require dental treatment. It was found that the admission of female patients more than male patients. The 7-9 year old was the predominant age group attending the clinic.

The most common reason for demanding dental treatment was "Pain/swelling"<sup>4,5,6,7</sup> and was noted that emergency/pain was more common among 7-9 year olds. It was also observed that emergency/pain was found to be the common chief complaint among patients visiting for the first time to dental clinics. This result corroborated with that found by **Shahzeb Hasan-Ansari et.al in 2016**.<sup>4</sup> One of the characteristic that they may contribute towards the age group of 7 – 9 is the understanding and perception of pain due to difference in cognitive development.

The older age group comprising 7-12 year old presented to the dental clinic with malocclusion. This was similar to that found by **Satinder Pal Singh et.al in 2015**.<sup>2</sup> The baseline information outlined in the present study can be appropriately utilized for the future planning to meet the orthodontic treatment need among population.

Boys are more prone to traumatic dental injuries.<sup>8,9,10,11</sup> and this is may be due to the fact that males tend to participate in more strenuous activities with higher trauma risk, such as contact sports and more aggressive types of playing. The highest occurrence of dental injury in the present study was found in the age interval of 7-14 of age predominantly in boys. This was similar to that found by **Hemn M. Sarmamy in 2011**.<sup>8</sup>

Several studies have indicated that pain due to caries was found to be the most common reason behind visit to dental hospital. Literature reviewed was limited to studies related to our focus of interest. However, there is a big scope of expanding this study starting from targeting major dental hospitals, followed by other cities, in order to retrieve much detailed information about the same.

### CONCLUSION

The most common rationale for seeking dental treatment among children was found to be pain/emergency. Further studies on larger sample size need to be done to identify the pertaining pediatric dental problem.

### REFERENCES

1. Jose A, Joseph M. Prevalence of dental health problems among school going children

- in rural Kerala. *J Indian Dent Assoc* 1990; 3:38-41.
2. Singh SP, Kumar V, Narboo P. Prevalence of Malocclusion among Children and Adolescents in Various School of Leh Region. *J ortho endo*. 2015;1(2):1-6.
3. Sharma S, Parashar P, Srivastava A, Bansal A. Oral health status of 9 to 12 year old school going children in urban Merut. *Ind J comm. Health* 2013;25(1):61-65.
4. Ansari SH, Saffan AA, Dhubaiban DA, Turkistani OY, Khalaf RA, Assaf DA. Prevalence of Chief Complaints among Pediatric Dental Patients in Saudi Population; Study Done in Riyadh Colleges of Dentistry and Pharmacy, Saudi Arabia. *RRJDS* 2016;4(4): 32-41.
5. Baceer A. Abdullah et al. Chief complaints of patients attending college of Dentistry at Mosul University. *Al-Rafidain Dent J* 2007;7(2):201-05.
6. Helderma WH, Nathoo ZA. Dental treatment demands among patients in Tanzania. *Community Dent Epidemiol*. 1990; 18: 85–87.
7. Shareef BT et al. Pain complaints of patients attending oral medicine clinic. *Iraqi Dent J*; 2000; 26: 43–57.
8. Hemn M. Sarmamy et al. Prevalence of dental trauma of permanent anterior teeth in children visiting College of Dentistry/Hawler Medical University Zanco. *J Med. Sci* 2011;15(1):44-46.
9. Traebert J, Peres MA, Blank V, Boell RS, Pietruza JA. Prevalence of traumatic dental injury and associated factors among 12-year-old school children in Florianopolis, Brazil. *Dent Traumatol* 2003; 19:15-18.
10. Singh N, Singh A, Jolly MS. Prevalence of Traumatic Dental Injuries in School Going Children of Lucknow, India. *Int J Oral Health Med Res* 2015; 2(2):39-42.
11. Noori A.J. Al-Obaidi W.A. Traumatic dental injuries among primary school children in Sulemani city, Iraq. *Dent Traumatol* 2009; 25:442-6.