

## Original Research

### Pattern of Dental Caries in School Children age ranged 5-14 years old

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#### ABSTRACT:

**Background:** Dental caries is an infectious microbial disease of multifactorial origin in which diet, host, and microbial flora. The present study was conducted to assess pattern of dental caries in school children. **Materials & Methods:** The present study was conducted on 460 school children age ranged 5- 14 years of both genders. DMFT score was calculated Brushing habit and frequency of brushing was also recorded. **Results:** Age group 5-7 years had 75 boys and 110 girls, 8-10 years had 65 boys and 100 girls, 10-14 years had 50 boys and 60 girls. The mean decayed score in boys was 0.91 and in girls was 0.85, missing score was 0.34 in boys and 0.48 in girls, filled score was 0.05 in boys and 0.07 in girls. DMFT score in boys was 1.3 and in girls was 1.4. The difference was significant in filled teeth ( $P < 0.05$ ). 115 boys and 150 girls brushes once daily, 55 boys and 78 girls brushes twice daily and 20 boys and 50 girls never brush. The difference was significant ( $P < 0.05$ ). **Conclusion:** Authors found that dental caries is prevalent in school children. In males, mean DMFT score was 1.3 and in females was 1.4.

**Key words:** Children, DMFT, Pattern

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#### INTRODUCTION

The control and prevention is highly relevant to change in people's attitude and practice that should be started in families from early stages of life.<sup>1</sup> School years cover a period that runs from childhood to adolescence. These are influential stages in people's lives where lifelong substantial oral health-related behaviors, as well as beliefs and attitudes, are being developed.<sup>1</sup>

Oral health is an important component of general health, with dental caries affecting a person's ability to eat, speak or socialize.<sup>2</sup> Dental caries is an infectious microbial disease of multifactorial origin in which diet, host, and microbial flora interacts over a period of time in such a way so as to encourage demineralization of the tooth enamel with resultant caries formation. Dental caries, the product

of man's progress toward civilization, has a very high morbidity potential and thus, is coming into focus of the mankind. The caries experience varies greatly among countries and even within small regions of countries. It varies with age, and sex, socioeconomic conditions, ethnicity, diet, medical conditions of the patient, oral hygiene practices, etc.<sup>3</sup>

The DMFT index has been widely utilized in epidemiological surveys of oral health. WHO recommended assessing and comparing the experience of dental caries in various populations. DMFT expresses the mean number of DMFT in a group of individuals.<sup>4</sup> The present study was conducted to assess pattern of dental caries in school children.

**MATERIALS & METHODS**

The present study comprised of 460 school children age ranged 5- 14 years of both genders. The school authority was informed regarding the study and permission was obtained prior to the study.

Data such as name, age, gender etc. was obtained and recorded. A through oral examination was done in all

children with the help of mirror, probe and explorer. DMFT score was calculated Brushing habit and frequency of brushing was also recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

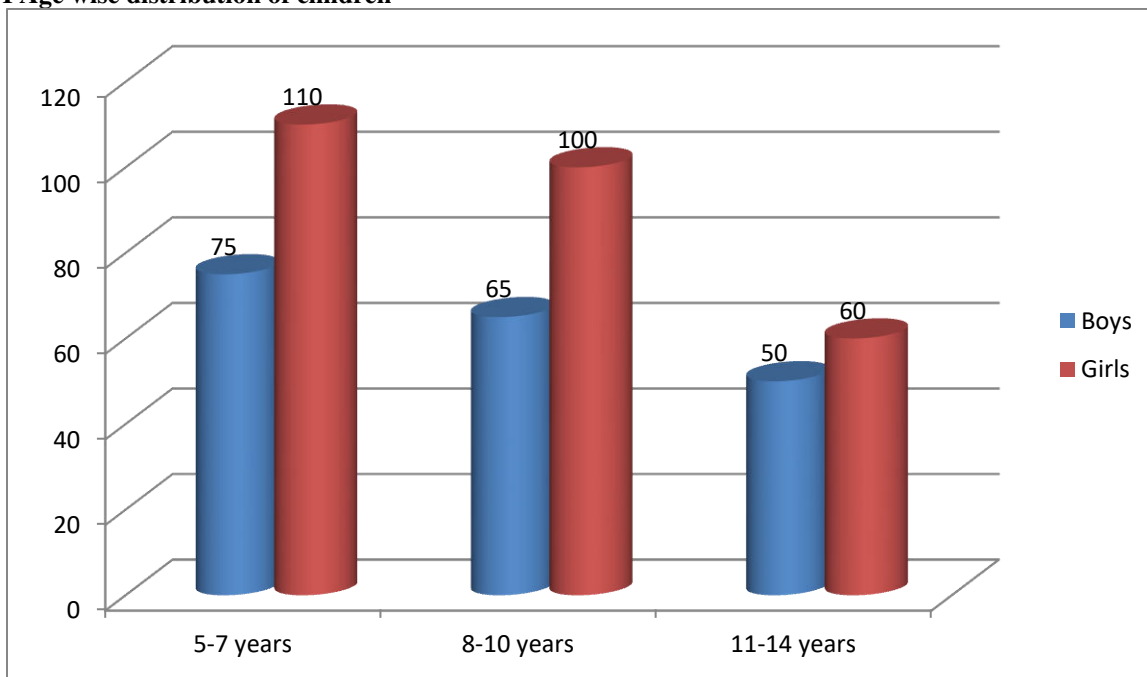
**RESULTS**

**Table I Age wise distribution of children**

Age group (Years)	Boys	Girls
5-7	75	110
8-10	65	100
11-14	50	60
Total	190	270

Table I, graph I shows that age group 5-7 years had 75 boys and 110 girls, 8-10 years had 65 boys and 100 girls, 10-14 years had 50 boys and 60 girls.

**Graph I Age wise distribution of children**

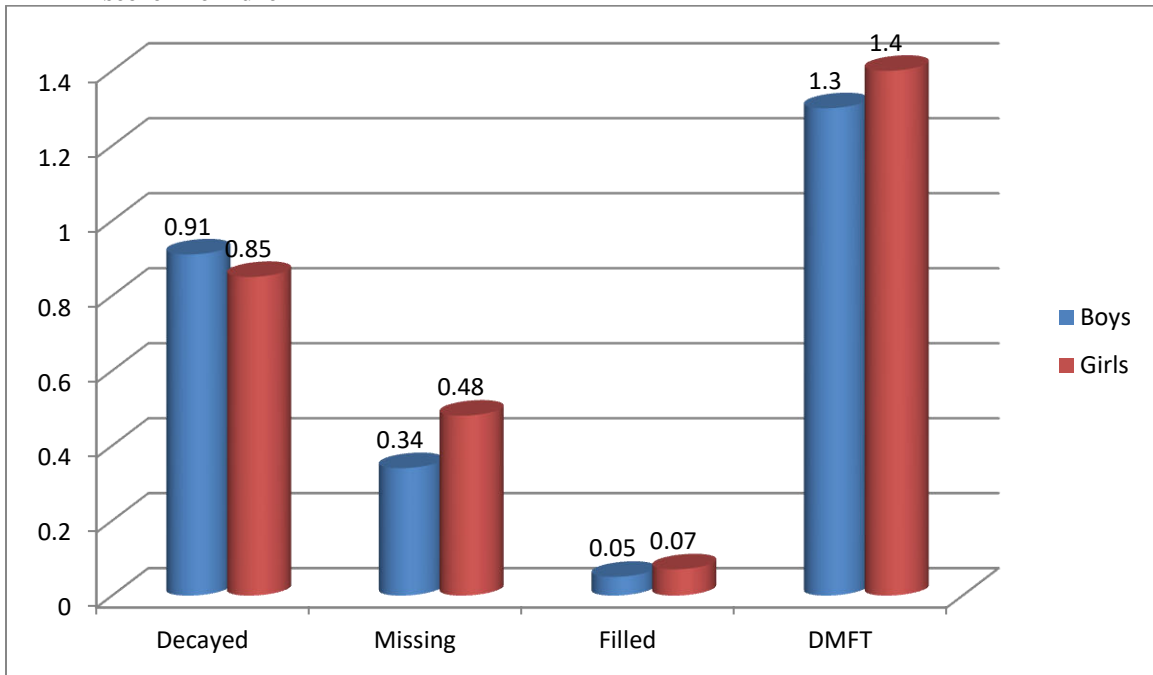


**Table II DMFT score in children**

DMFT	Boys	Girls	P value
Decayed	0.91	0.85	0.81
Missing	0.34	0.48	0.62
Filled	0.05	0.07	0.01
DMFT	1.3	1.4	

Table II, graph II shows that mean decayed score in boys was 0.91 and in girls was 0.85, missing score was 0.34 in boys and 0.48 in girls, filled score was 0.05 in boys and 0.07 in girls. DMFT score in boys was 1.3 and in girls was 1.4. The difference was significant in filled teeth (P< 0.05).

**Graph I DMFT score in children**

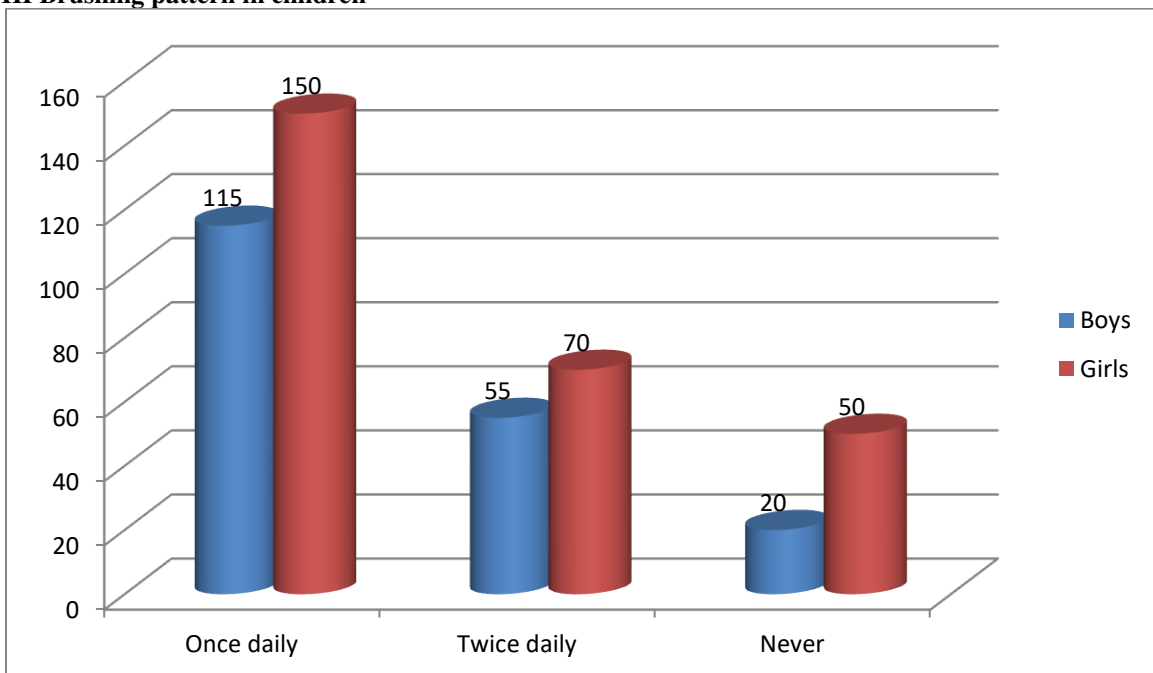


**Table III Brushing pattern in children**

Brushing	Boys	Girls	P value
Once daily	115	150	0.01
Twice daily	55	70	0.42
Never	20	50	0.05

Table III, graph III shows that 115 boys and 150 girls brushes once daily, 55 boys and 78 girls brushes twice daily and 20 boys and 50 girls never brush. The difference was significant ( $P < 0.05$ ).

**Graph III Brushing pattern in children**



## DISCUSSION

Healthy teeth and oral tissues and the need for oral health care are important for any section of society. Oral disorders can have a profound impact on the quality of life. Good oral health has real health gains, in that it can improve general health and quality of life and contribute to self-image and social interaction.<sup>5</sup> Dental caries are the most common chronic disease of childhood that interferes with normal nutrition intake, speech, self-esteem, and daily routine activities because the caries pain adversely affects the normal food intake.<sup>6</sup> This results in underweight children with abnormal cognitive development. Despite incredible scientific advances and the fact that caries are preventable, the disease continues to be a major public health problem.<sup>7</sup>

Previous methods for the treatment of dental caries in a surgical manner have been replaced by newer strategies that emphasize disease prevention and conservation of tooth structure.<sup>8</sup> Voluminous literature exists on the status of the dental caries in the Indian population. It has been observed that in 1940 the prevalence of dental caries in India was 55.5% and in 1960 it was reported to be 68%. Overall the general impression is that dental caries has increased in prevalence and severity in urban and cosmopolitan population since last two decades.<sup>9</sup> The present study was conducted to assess pattern of dental caries in school children.

In present study, age group 5-7 years had 75 boys and 110 girls, 8-10 years had 65 boys and 100 girls, 10-14 years had 50 boys and 60 girls. Ingle in their cross-sectional study carried out on total 1400 school children, of which 700 school children were from government schools and 700 were from private schools. Simple random sampling methodology was used to select the sample.

Ingle et al<sup>10</sup> conducted a study in which subjects were examined for dental caries according to WHO 1997 assessment form. Significant Caries Index was also used to assess the prevalence of dental caries. The prevalence of dental caries was found higher among government school children, that is, 53%, when compared to private school children, that is, 47% and this difference was found to be statistically significant. The mean decayed, missing, and filled teeth were found to be higher in government school children ( $7.61 \pm 2.86$ ) as compared to private school children ( $4.76 \pm 2.42$ ).

We found that mean decayed score in boys was 0.91 and in girls was 0.85, missing score was 0.34 in boys and 0.48 in girls, filled score was 0.05 in boys and 0.07 in girls. DMFT score in boys was 1.3 and in girls was 1.4. 115 boys and 150 girls brushes once daily, 55 boys and 78 girls brushes twice daily and 20 boys and 50 girls never brush.

Shailee et al<sup>11</sup> conducted a study which consisted of 721 subjects of which 392 (54%) were males and 329 (46%) were females. They belong to the age group of 3–12 years. The highest mean dft score of ( $1 \pm 1.81$ ) was found among females than males ( $0.0 \pm 1.88$ ). The study subjects had a

mean DMFT score of ( $0.16 \pm 0.81$ ), respectively. The highest mean DMFT score of ( $0.11 \pm 0.48$ ) was found among females than males ( $0.05 \pm 0.33$ ), respectively. The study conducted by Pontigo Loyola et al<sup>12</sup> found that maximum number of school children belonged to the age group of 15 years, that is, 850 (55.3%).

## CONCLUSION

Authors found that dental caries is prevalent in school children. In males, mean DMFT score was 1.3 and in females was 1.4.

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