

## Original Article

### Pattern of Dental Caries in 6-12 years of Children

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#### ABSTRACT:

**Background:** Teeth decay is a major problem in terms of social and health as the most common communicable and chronic infectious disease in the world. The present study was conducted to assess dental caries in school children. **Materials & Methods:** The present study was conducted on 380 school children age ranged 6- 12 years of both genders. DMFT score was calculated and mean was taken in all subjects. Brushing habit and frequency of brushing was also recorded. **Results:** Age group 6-8 years had 62 boys and 74 girls, 8-10 years had 55 boys and 56 girls, 10-12 years had 34 boys and 48 girls and 12-14 years had 29 boys and 22 girls. The mean decayed score in boys was 0.82 and in girls was 0.81, missing score was 0.32 in boys and 0.45 in girls, filled score was 0.04 in boys and 0.08 in girls. DMFT score in boys was 1.18 and in girls was 1.34. The difference was significant in filled teeth ( $P < 0.05$ ). 125 boys and 140 girls brushes once daily, 45 boys and 38 girls brushes twice daily and 10 boys and 22 girls never brush. The difference was non-significant ( $P > 0.05$ ). **Conclusion:** Authors found high DMFT score in school children. DMFT score in boys was 1.18 and in girls was 1.34.

**Key words:** Children, Dental decay, DMFT

Received: 18 February, 2019

Revised: 28 March, 2019

Accepted: 29 March, 2019

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**This article may be cited as:** Singh R, Bali A, Gupta B. Pattern of Dental Caries in 6-12 years of Children. J Adv Med Dent Scie Res 2019;7(4): 45-47.

#### INTRODUCTION

Teeth decay is a major problem in terms of social and health as the most common communicable and chronic infectious disease in the world, which involves more than 99% of people regardless of gender, age, and race. Although, in recent decades, significant advances have been achieved in the field of oral health, oral and dental problems still remained as a health problem especially related to lifestyle in developing and even some developed industrial countries. 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. Children are particularly receptive during this period, and the earlier

habits are established, the long-lasting, and the impact. Children who suffer from poor oral health are 12 times more likely to have more restricted activity days including missing schools than those who do not.<sup>2</sup>

Dental health indexes are not only indicators of health status, but also can be features of the socioeconomic condition. One of these indexes is decayed, missing and filled teeth (DMFT), which is used as oral health evaluation criteria in most researches. 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>3</sup> The present study was conducted to assess dental caries in school children.

**MATERIALS & METHODS**

The present study was conducted in the department of Pedodontics. It comprised of 380 school children age ranged 6- 12 years of both genders. The school authority was informed regarding the study and permission was obtained prior to the commencement of study.

Students data related to name, age, gender etc. was obtained and recorded in case history performa. DMFT score was calculated and mean was taken in all subjects. 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
6-8	62	74
8-10	55	56
10-12	34	48
12-14	29	22

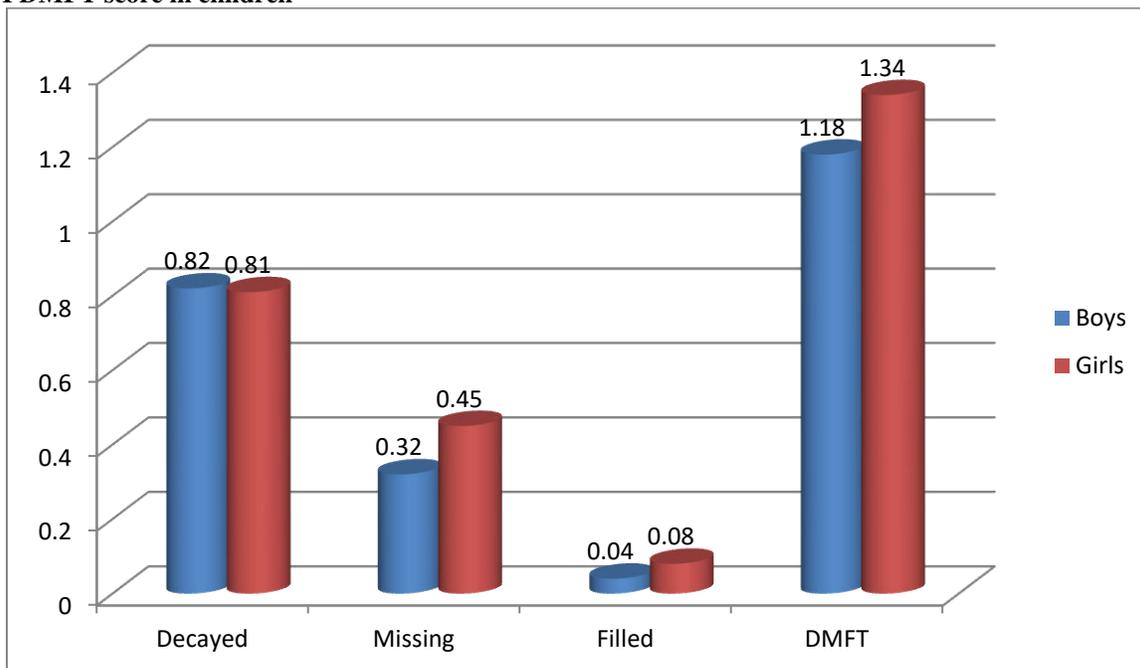
Table I shows that age group 6-8 years had 62 boys and 74 girls, 8-10 years had 55 boys and 56 girls, 10-12 years had 34 boys and 48 girls and 12-14 years had 29 boys and 22 girls.

**Table II DMFT score in children**

DMFT	Boys	Girls	P value
Decayed	0.82	0.81	0.5
Missing	0.32	0.45	0.7
Filled	0.04	0.08	0.01
DMFT	1.18	1.34	

Table II, graph I shows that mean decayed score in boys was 0.82 and in girls was 0.81, missing score was 0.32 in boys and 0.45 in girls, filled score was 0.04 in boys and 0.08 in girls. DMFT score in boys was 1.18 and in girls was 1.34. 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	125	140	0.21
Twice daily	45	38	0.32
Never	10	22	0.76

Table III shows that 125 boys and 140 girls brushes once daily, 45 boys and 38 girls brushes twice daily and 10 boys and 22 girls never brush. The difference was non-significant ( $P > 0.05$ ).

## DISCUSSION

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. 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>4</sup>

Most researchers believe that teeth decay is a complicated phenomenon mainly occurred by interaction of host factors, diet, and microorganisms. Generally, bacterial plaque is the major cause of teeth decay and mouth disease. Microorganisms in the plaque adhere firmly to the teeth surface. Sugar and starches in food are broken down and converted to acids and other substances. This may lead to cavities and teeth decay.<sup>5</sup> Diet, food use, frequency of food intake, as well as saliva properties, (influencing the type of microorganisms in dental plaque and teeth resistance) are important factors in dental caries. The "Prevalence" of dental caries in an individual is obtained by calculating DMFT, which is the most common index used and for deciduous dentition dmft index is used.<sup>6</sup>

In present study, age group 6-8 years had 62 boys and 74 girls, 8-10 years had 55 boys and 56 girls, 10-12 years had 34 boys and 48 girls and 12-14 years had 29 boys and 22 girls. Mohammadi et al<sup>7</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 mean dft among male and female was not significant statistically using an independent t-test, but the mean DMFT among male and female was significant statistically. In present study mean decayed score in boys was 0.82 and in girls was 0.81, missing score was 0.32 in boys and 0.45 in girls, filled score was 0.04 in boys and 0.08 in girls. DMFT score in boys was 1.18 and in girls was 1.34. The difference was significant in filled teeth ( $P < 0.05$ ). We found that 125 boys and 140 girls brushes once daily, 45 boys and 38 girls brushes twice daily and 10 boys and 22 girls never brush.

Wulaerhan et al<sup>8</sup> found that 43.6% of the individuals had at least one teeth lesion. The mean and SD of DMFT value for

all ages was  $1.02 \pm 1.36$ . Male children had higher mean DMFT score of  $1.01 \pm 1.41$  compared with  $1.00 \pm 1.41$  for females ( $P > 0.05$ ). Also, maximum DMFT ( $1.38 \pm 1.62$ ) was observed among students that never seen a dentist per year. Analysis of variance analysis showed that there is not a significant correlation between DMFT index and brushing times.

## CONCLUSION

Authors found high DMFT score in school children. DMFT score in boys was 1.18 and in girls was 1.34.

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