Significant Caries Index: A Better Indicator for Dental Caries

Rupsa Banerjee¹, Bratati Banerjee²*

Sir,

Dental caries is one of the oro-dental diseases which is highly prevalent in India.¹² DMFT index has been widely used to assess the caries status among individuals by computing the mean number of Decayed (D), Missing (M) and Filled (F) teeth in a population. This index however does not reflect the true picture since there are both individuals with considerably higher DMFT values as well as caries-free individuals in the same population. Significant Caries index (SiC) is a better indicator in this case because it records the individuals with the highest DMFT values. The Global Goals for Oral Health in the year 2000 proposed to reduce the SiC index among the 12-year-olds to less than 3 DMFT by the year 2015, globally.

The present study was done as a part of the School Health Programme in selected government schools in south Bangalore where students of classes 1 to 10 were examined as part of annual health check-up which included dental examination and questions on oral hygiene habits. DMFT score for permanent teeth and dmft score for temporary teeth were calculated for each child. SiC index was calculated, according to the WHO formula,³ for the 12-year-old population by calculating the average DMFT score of one third of the 12-year old children having the highest DMFT values, to assess whether this was in line with the proposed global goals for oral health.

A total of 526 children aged 6 to 16 years were included in the study among whom the prevalence of dental caries was found to be 38.59%. Dental caries was found to be significantly greater in girls (47.41%) than boys (31.63%) at p<0.001. Prevalence of dental caries was significantly lower among children who brushed twice a day or more (26.83%) than among those who brushed lesser number of times (62.79%) at p<0.001. The mean DMFT and DMFT scores for the study population were 1.95±0.92 and 2.29±1.51 respectively. Among the study population there were 144 children who were 12 years of age and the mean decayed, missing and filled teeth score among these children was 2.56±1.13 whereas their Significant Caries index (SiC) was 3.72, which was higher than their mean DMFT score and also higher than the proposed goal of 3 DMFT. Findings of other studies previously conducted were also in agreement with those of the present study.³⁴

In any population there is a skewed distribution of caries prevalence, i.e., there are individuals with high caries scores whereas a large part of the population is caries-free. Significant Caries Index is more accurate in assessing the caries morbidity since it takes into account a third of the individuals with highest caries scores whereas the mean decayed, missing and filled teeth score usually camouflage the real picture leading to the incorrect conclusion that the caries situation for the whole population is controlled. The National School Health Programme provides a good opportunity for promotion of oral health and screening for dental morbidities. In conclusion, dental caries was prevalent among the school children in the present study, with a high Significant Caries Index among the 12-year old children.

REFERENCES
