

## **Abstract**

The objectives of the study were to determine dental caries experience of 3-5 year old children and to assess oral health knowledge and oral care practices of their parents in Nugegoda medical officer of health (MOH) area.

Descriptive cross sectional study was carried out.

Study population was the 3-5 year old children and their parents living in the Nugegoda MOH area.

Multistage cluster sampling combined with probability proportionate to size technique was adopted for the selection of study units and PHM areas were considered as clusters.

Study was carried out in the weighing posts in Nugegoda MOH area. 3-5 year old children who presented the selected weighing posts with their parents were included in to the study.

Dental caries experience of the children was assessed by using WHO diagnostic criteria for the assessment of dental caries in primary dentition.

Since children are highly dependent on their parents, oral health knowledge and oral care practices of the parents play a major role in maintaining healthy primary dentition.

Furthermore children could not provide valid answers about their general information and oral care practices. Oral health knowledge of parents and proxy reports of parents on oral health practices of children were assessed by an interviewer administered questionnaire.

A total of 425 children, 3 – 5 year old children and their parents participated in the study.

The prevalence of dental caries among 3-5 year old children in the Nugegoda MOH area was 53.9%. The mean dmft was 2.29 and the distribution of caries was skewed.

Chronic disease status, age of the child, Father's age, parental levels of education and social class of the family were significantly associated with the caries experience of the child.

The majority (68.9%) of the parents had a good knowledge on oral health followed by another 20.5% with a fair knowledge. Only 10.4% parents possessed a very good knowledge on oral health and a mere 0.2% were categorized as having poor knowledge.

In overall the level of parental knowledge on the importance of protecting primary dentition was satisfactory (a mean score of  $4.73 \pm 1.33$  out of a maximum of 5) even though they were not adequately knowledgeable on reasons to this importance (a mean score  $1.82 \pm 1.367$  out of a maximum of 5). Similarly parental knowledge on tooth friendly food habits (a mean score  $3.08 \pm 0.696$ ), extraction as a treatment for decayed primary teeth (a mean score  $4.41 \pm 1.613$ ), early identification of dental decay in primary teeth (a mean score  $3.31 \pm 0.867$ ) and any effects of primary teeth on the permanent dentition (a mean score  $3.26 \pm 2.385$ ) were satisfactory.

Oral health knowledge of the parents were not adequate in the areas of, knowledge on reasons for protecting primary teeth (mean score  $1.82 \pm 1.367$ ), knowledge on at what age infants teeth brushing should be started on (a mean score  $1.74 \pm 2.385$ ), knowledge on mode of brushing infants teeth (a mean score  $2.4 \pm 2.501$ ) and eruption time of the permanent dentition (a mean score  $2.34 \pm 2.498$ ).

There was no statistically significant association between the levels of parental knowledge on oral health and dental caries experience of their children. However, the

percentage of caries free children were higher among parents who had a better oral health knowledge compared to their lesser knowledgeable counterpart.

58.1% of the parents reported the government dental clinic as the commonest place to seek dental care for their child. However majority of parents sought oral health care for their children when children had visible dental lesions/pain. Despite of availability of school dental clinic facilities, they were underutilized by the majority of the sample.

There were statistically significant associations of dental caries experience of children with reported frequency of sweet consumption and dental care seeking patterns. Accordingly, the percentages of caries free (72.2%) children were higher when the child was not given sweets at all compared to children who reported to consume sweets frequently as well as those who sought regular 6-monthly interval- dental care.