

ABSTRACT

Objective: The objective of this study was to assess permanent tooth eruption and its association with nutritional status, socio-demographic factors and the use of oral health care services in twelve year old school children in the Colombo Municipality area.

Method: A descriptive cross sectional study was carried out using anthropometric measurements to estimate nutritional status, clinical examination of teeth present to estimate eruption and an interviewer administered questionnaire. Multi stage cluster sampling technique combined with probability proportionate to size was used to obtain the sample of 640 students from twelve year old school children attending government schools in the Colombo Municipality area. Body Mass Index was used to classify the children's overweight and obesity status, according to the Center for Disease Control 2000 reference charts.

Results: At the age of twelve in Colombo Municipality area 26.9% (172) of the children were underweight and 11.2% (72) were overweight. Majority of the children 61.9% (396) were in normal BMI level. Nutritional status, social class and oral hygiene practices demonstrated a statistically significant difference in mean number of teeth present in twelve years old school children in the Colombo Municipality area at $p < 0.001$ level.

Conclusions and Recommendations: Children who were overweight or obese had accelerated tooth eruption, even after adjusting for age and gender. Accelerated tooth eruption in obese children is an important variable to consider in public health as well as pediatric dental and orthodontic treatment planning where timing is crucial. A better understanding of the relationship between general nutrition and oral health (in this case eruption patterns) in a Sri Lankan context at this time will enable both medical, oral health and public health workers to collaborate more effectively in preventive activities.