

Original

## The Relationship between Dental Health Behaviors, Socioeconomic Status, and DMFT of 12-year-old Children in Western Province of Sri Lanka

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### Abstract:

**Objective:** The purpose of this study was to analyze the significance of dental health behavioral and socioeconomic factors influencing the DMFT of 12-year-old school children in the Western Province of Sri Lanka (WPS), a highly urbanized region with marked socioeconomic diversity.

**Materials and methods:** The data set comprised 949 12-year-old school children in WPS. The independent variables for the multiple logistic regression analyses (MLRAs) included four dental health behaviors (4-DHBs) (sugar consumption habits, tooth brushing habits, fluoride toothpaste use, and regular dental check-ups), as well as 10 socioeconomic factors. Final models and odds ratios for each variable were obtained by backward-MLRAs.

**Results:** The distribution of the DMFT showed an exponential dropping pattern. Differences in the DMFT between genders and among three ethnic groups were not significant. Fluoride toothpaste use was the main behavioral factor related to a low DMFT of 12-year-old children, especially among Sinhalese children in WPS. The most significant socioeconomic factor was ethnic group.

**Conclusions:** Fluoride toothpaste was the most powerful behavioral factor related to the low DMFT of 12-year-old children, especially for Sinhalese children in WPS. On the other hand, the most significant socioeconomic factor was ethnic group. Dental health behaviors were affected by traditional and religious customs and habits, which seem to sometimes exhibit additive effects, but occasionally have offsetting effects, on dental caries. It is necessary to monitor the important cariogenic and relevant socioeconomic factors, although the level of caries prevalence in this province was demonstrated to be very low.

**Key words:** Sri Lanka, Ethnic groups, DMFT of school children, Dental health behavioral cariogenic factors, Socioeconomic cariogenic factors