

**Original**

## The Relationship between Socioeconomic Status and Four Dental Health Behaviors 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 relationship between socioeconomic factors and four types of dental health behavior: intake of sugary foods or drinks, daily tooth brushing habit (DTB), daily use of fluoride toothpaste (FTP), and regular dental check-ups (RDC-up).

**Materials and methods:** Nine hundred and forty-nine 12-year-old school children in 21 schools were randomly selected in the Western Province (the most urbanized province) of Sri Lanka (WPS). The ten independent variables for the multiple logistic regression analyses (MLRAs) were as follows: gender, council, ethnic group, parents' educational background (PEB), parents' occupation, household income, number of siblings, sources of dental information, regular dental check-ups, and six factors of community development (abbreviations: Fa-LCD1-6) based on a factor analysis of 24 household appliances and other development indicators. MLRAs were performed with the four dental health behaviors as dependent variables, and the differences among the behaviors were compared.

**Results:** Combinations with odds ratios above 2.0 were: Tamil group vs. intake of sugary foods ( $\exp(-B) = 5.44$ ), Sinhalese vs. FTP (2.34), TV info source vs. FTP (2.32), Fa-LCD1 vs. addition of sugar between meal (2.16), Fa-LCD1 vs. sugared tea (2.16), and Sinhalese vs. RDC-up (2.11). Six combinations had significance levels of  $p < 0.001$ : gender vs. DTB, Fa-LCD1 vs. (addition of sugar between meals, sugared tea, and FTP), RDC-up vs. (addition of sugar and DTB). Extensive factors widely influencing more than two of the four behaviors were: ethnic groups, PEB, Fa-LCD1, and RDC-up.

**Conclusions:** Important factors which should be considered in dental schemes, campaigns, or activities are: gender, ethnic groups, PEB, Fa-LCD1, and RDC-up.

**Key words:** Sri Lanka, Levels of community development, Ethnic groups, Dental health behaviors, Socioeconomic factors