Development of Simple Indicators to Evaluate the Influence of the Socioeconomic Status and Community Development on the Dental Health Behaviors of Schoolchildren in Sri Lanka

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Abstract: In Sri Lanka, the civil war has come to an end, and so the economy is expected to improve. These economic advances may bring about an increase in lifestyle-related diseases, including dental caries. Socioeconomic studies related to dental health behaviors are needed in order to detect the signs of impending threats to dental health. The purpose of this study was to identify simple indicators of the socioeconomic status and community development which are likely to influence the dental health behaviors of schoolchildren.

The participants were 949 children aged 12, selected randomly in Sri Lanka. The ethnic group, parents’ educational background and occupation, and monthly household income were analyzed as indicators of the socioeconomic status. The ownership of 24 household economic indicators, mainly consisting of household appliances, was also analyzed as an indicator of community development. The relationships between these indicators and four dental health behaviors (consumption of sugared foods/drinks, daily tooth brushing, fluoride toothpaste use, and regular dental checkups) were analyzed.

The results of this study showed that the socioeconomic status and household economic indicators influence dental health behaviors. Household economic indicators were mainly divided into three factors by factor analysis: luxury appliances/facilities, household appliances, and driver or domestic worker. These categories of household economic indicators had different effects on the socioeconomic status and on the four dental health behaviors. Simple sums of binary responses of factor loadings of these three factors can be used as a substitute for other factors. These three substitute indicators will be useful when response refusal rates are high for items such as the monthly household income and educational background.

Key words: Sri Lanka, Dental health behaviors, Community development, Household durable items, Ethnic groups

Introduction

Dental caries rates in schoolchildren are likely to increase rapidly along with rapid economic advancement in developing countries\textsuperscript{1,2}. The lack of useful dental health information and dental clinics, as well as the medico-economic impact of high treatment costs, will likely result in an unfavorable dental health situation\textsuperscript{3} in which the majority of people cannot receive adequate dental treatment. This situation is exacerbated by low-level community development\textsuperscript{4,5}. The most important challenge in terms of the dental health policy is to iden-

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