Oral health and nutritional status of early head start children in a selected area of Dhaka city

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Background: Food and nutrition affects the teeth during development and malnutrition and it may exacerbate periodontal and oral infectious diseases. However, the most significant effect of food and nutrition on teeth is the local action of diet in the mouth on the development of dental caries and enamel erosion.

Objective: The purpose of this study was to assess the oral health and nutritional status of early head start children aged 2 to 5 years who attended the clinical nutrition unit of IPHN (Institute of Public Health Nutrition).

Methods: A cross-sectional study was conducted conveniently among a total of 384 early head start children aged 2 to 5 years at IPHN (Institute of Public Health Nutrition). Data was collected by face-to-face interview. A pretested structured questionnaire was used and oral clinical examination was performed by following standard appropriate techniques and tools. Data were analyzed by the software namely SPSS version 16.0. Formal approval of the study was obtained from ethical review board of BADAS.

Results: The mean age of the respondents was 36 months with the standard deviation of ±13 months. Majority (41%) of the children were in the age group around 24 to 59 months. Almost all (97.7%) the children cleaned their teeth regularly. Common oral health problems found among the children were Plaque (47%), gum bleeding (11%), gingivitis (14%), swelling of gum (3.9%) and pain or infection with gross caries (23.2%). About 17% of children had the history of previous gum bleeding. Regarding the nutrition level of the children, 6.2% boys and 6.8% of girls had normal nutritional status whereas rests of the respondents were malnourished. Among the malnourished children more than half (54.7%) of the girls and almost one third (28.9%) of boys were suffered from mild malnutrition. Significantly higher proportion of unclean teeth and gum bleeding were found among the children whose mother were illiterate (p=0.001), having low family income (p=0.001 and p=0.005) and having large family size (p=0.001 and p=0.01 respectively). But no significant association was found between nutritional status and oral health problems.

Conclusion: The study concludes that almost all the children clean their teeth regularly. Plaque, gum bleeding; gingivitis, swelling of gum, pain or infection with gross caries and history of previous gum bleeding were the principle oral health problems among the study subjects. Most of the children found to be suffered from malnutrition.

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