

Socioeconomic and Nutritional Status in Relation to Oral Health Status and Treatment Needs in Dewanyiah Governorate among 12 Years Old School Students

A Thesis

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ABSTRACT

Background: The socioeconomic and nutritional status are most important factors that effect in the severity and prevalence of most predominant and wide spread oral diseases named dental caries and periodontal disease as well as traumatic injuries, since these oral diseases affect children , adolescents , adults and elderly peoples especially in developing countries as in Iraq.

Aims of the study: This survey was aimed to investigate the prevalence and severity of dental caries, dental plaque, gingivitis, dental calculus and traumatized anterior teeth in addition to dental treatment needs in relation to socioeconomic and nutritional status .

Materials and Methods: This oral health survey was conducted among primary and secondary school students aged 12 year old in Dewanyiah governorate in Iraq. The total sample composed of 804 (401 boys and 403 girls) selected randomly from different schools in Dewanyiah governorate. Diagnosis and recording of dental caries and treatment needs were assessed according to the criteria described by WHO (1997) . Plaque index of Silness and Loe (1964) was used for plaque assessment. Community Periodontal Index CPI (1997) was applied for the assessment of calculus and gingival health condition . Traumatic dental injuries were diagnosed according to Garcia-Godoy's (1981). Nutritional status was assessed by BMI for age z-score , the modification of Kuppuswamy's index (1976) was applied for measurement of socioeconomic status.

Results: The most of low socioeconomic category was occupied by rural students. Concerning the nutritional status, the prevalence of malnutrition described by overt malnutrition students equaled to 3.23 % most of them were boys.

The prevalence of dental caries was 70.65 % for the total sample. The mean DMFT for permanent teeth was equal to 1.83 ± 0.068 and DMFS 2.89 ± 0.126 . Concerning primary teeth , the mean dmft was 0.43 ± 0.036 and dmfs 0.94 ± 0.090 . Significant differences were seen between the variables gender and residency in this survey with DMFS while no significant differences were seen between other variables socioeconomic and nutritional status with DMFS. Girls were more affected by dental caries than boys and urban more than rural students. Highly significant correlations were recorded between plaque index and variables of gender and nutritional status. Concerning calculus and gingival health condition that represented by CPI, highly significant correlations were reported with gender, residency and nutritional status while no significant correlations were registered with the other variables.

The prevalence of dental trauma was equaled to 7.84% . Statistically, highly significant correlations were reported between dental trauma and gender where boys were more affected by dental trauma than girls, while no significant correlations was shown with other variables. The most common type of injury in traumatized anterior teeth was simple enamel fracture followed by enamel and dentine fracture and then enamel and dentin with pulp exposure. The maxillary central incisors were the most commonly injured teeth.

Conclusion: A high prevalence of dental caries, gingivitis and traumatized anterior teeth were recorded. Socioeconomic and nutritional status may affect oral health indicating the need for public and health preventive programs among school students.