

**Republic of Iraq
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Oral Health Status in Relation to Nutritional Status among 9 Years- old School Children in Al-Diwaniyah City/Iraq

A Thesis

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Abstract

Background:

Although they are not life threatening, dental caries and periodontal disease are the most predominant and widely spread oral disease throughout the world affecting children, adolescents, adults and elderly peoples especially in developing countries as in Iraq. Another most common dental problem seen in children is dental trauma. These all may be affected by nutritional status. Base line data are needed among these diseases in different Iraqi governorate to have a national result.

Aims of the study:

The survey aimed to investigate the prevalence and severity of dental caries and gingivitis relation to gender, evaluate oral hygiene condition (dental plaque), study the prevalence and severity of the traumatized anterior teeth and evaluate nutritional status of children in relation to dental caries and gingivitis.

Materials and Methods:

This oral health survey was conducted among primary school children aged 9 years old in Dewanyiah city in Iraq. The total sample composed of 600 children (320 males and 280 females) selected randomly from different school in Dewanyiah city. Diagnosis of dental caries was according to the criteria described by WHO (1987). Plaque index of Silness and Loe (1964) was used for plaque assessment, gingival index of Loe and Silness (1963) was followed for recording gingival health condition. Diagnosis and recording of traumatic dental injuries were assessed according to Garcia-Godoy's classification (1981). Nutritional status was assessed according to body mass index (BMI) indicator by using anthropometric measurement (height and weight).

Results:

Results showed that the prevalence of dental caries was found to be (85%) for 9 year-old school children. Regarding primary and permanent dentition, females in this study had a statistically higher caries-experience than males with statistically significant difference for primary dentition ($P < 0.05$).

The decayed surfaces (ds/DS) found to be higher in females compared to males, while filled surfaces (fs/FS) found to be higher in males compared to females, differences were statistically significant for primary dentition ($P < 0.05$) and statistically highly significant for permanent dentition ($P < 0.01$).

Finding of this study revealed that 100% of the children had gingival inflammation, 64.1% had a moderate type of gingivitis, while severe gingivitis was absent in the present study. The mean rank values of plaque and gingival indices for males were found to be higher than females, this difference was statistically highly significant ($P < 0.01$).

The prevalence of children with traumatized anterior teeth was 10.5% of the total sample. Males were more affected than females, the difference was statistically significant ($P < 0.05$). Simple enamel fracture was the most common type of injury among traumatized teeth among children. The maxillary central incisors were the most commonly injured teeth. In current study, the prevalence of malnutrition described by the BMI indicator was 5.3%. For total samples, no significant difference was recorded in dmfs /DMFS values among wasting and well nourished children ($P > 0.05$).

Conclusion:

A high prevalence of dental caries and gingivitis were recorded. Furthermore, observation is needed especially among boys to prevent over acting to reduce the prevalence of dental trauma.