Oral Health Status in Relation to Nutritional Status among kindergarten Children in Al-Ramadi City/Iraq

A Thesis

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Abstract

Back ground: Nutrition is very important for oral and general health. It play a key role in growth, teeth development, gingival and oral tissue integrity, bone strength and prevention of disease of the oral cavity.

Aims of the study: The aims of the study were to assess the nutritional status for kindergarten children of four and five years of age by using anthropometric measurement and investigate the prevalence and severity of dental caries, gingivitis, plaque and calculus indices in relation to age, gender, and nutritional status.

Materials and Method: This study was conducted among kindergarten children aged 4-5 years in Al-Ramadi city in Iraq. The total sample composed of (444) children who were chosen randomly from different kindergarten in the city. The assessment of nutritional status was performed using anthropometric measurements (Waterlow's indicator). Diagnosis and recording of dental caries was done using the criteria of WHO 1987. Plaque index of Silness and Loe (1964) used for plaque assessment, gingival index of Loe and Silness (1963) was used for recording gingival health condition. Ramfjord index teeth (1959) was applied to assess oral cleanliness and gingival condition.

Results: The prevalence of malnutrition described by Waterlow's indicator, were found to be 3.4%, 14.4%, 6.1% short term, dwarf, long term respectively. The result showed that the percentage of caries free children among well nourished was 73.9% while 6.1%, 13.6%, 6.16% among short term, dwarf, long term respectively. When we study the

value of dmfs according to nutritional status indicators, it has been found that the dwarf children had higher dmfs value than other nutritional status (well nourished, short term and long term). On the other hand, males had higher dmfs value than females in all nutritional status except in short term.

Plaque index and gingival index were reported to be higher among short term, dwarf and long term children than well nourished, the mild gingivitis was the more prevalent grade among the total sample. No significant difference was recorded in calculus index between the malnourished and well nourished children.

Conclusions: A high prevalence of dental caries was recorded. There was a direct relationship between Periodontal condition and malnutrition.