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Oral Health Status among Secondary School Female Students in Kirkuk City/Iraq

A thesis

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By

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Abstract

Background: Dental caries and periodontal disease are considered as the most common and widely spread oral diseases affecting all ages. Another oral problem is enamel defect.

Aims of the study: The present study was conducted to estimate the oral hygiene (dental plaque), the prevalence and severity of dental caries and gingivitis. Additionally, the prevalence of enamel defects and treatment need for dental caries were determined for 16-17 years old secondary school female students in urban area of Kirkuk city/Iraq.

Materials and methods: The total sample consisted of 750 secondary school female students aged 16-17 years old distributed into 387 for the sixteen years old and 363 for the seventeen years old female students who selected randomly from different female secondary schools in urban area of Kirkuk city in Iraq. Diagnosis and recording of dental caries and treatment needs were done according to the criteria described by WHO (1987). Dental plaque was assessed using plaque index of Silness and Loe (1964). The gingival health condition was assessed using gingival index of Loe and Silness (1967), while, enamel anomalies followed the criteria of WHO (1997).

Results: Results of the current study showed that only (17.20%) of the total sample was caries free. For the total sample, it was found that the mean values of DMFT and DMFS were 4.15 ± 0.11 , 6.47 ± 0.22 respectively. Regarding age, it was found that mean values of DMFT and DMFS with their components increased with age with statistically significant difference for FS fraction only ($P < 0.05$). It was found that the decay fraction constituted the major fraction in both DMFT and DMFS indices. Furthermore, the result showed that one surface filling contributed the major component of treatment needs index (76.80%), followed by two or more surface filling (34.53%). The percentage of dental

plaque was (88.67%) and the mean value of plaque index was 0.92 ± 0.02 . The prevalence of gingivitis was (88.53%) and the mild type of gingivitis was the most prevalent type (47.73%) also, the mean value of gingival index was 0.90 ± 0.02 . Regarding age, it was found that the mean values of plaque and gingival indices increased with advancing age with statistically no significant difference ($P > 0.05$). The result revealed a strong positive and statistically highly significant correlation between plaque and gingival indices for total sample and for both ages ($r > 0.5$, $P\text{-value} < 0.01$). Additionally, the results showed that the correlation between plaque index and caries experience was weak positive ($r < 0.5$) and statistically highly significant ($p\text{-value} < 0.01$). regarding enamel defects, it was found that the prevalence of enamel anomalies for the total sample was 40.27% and the diffused opacity was the most prevalent type of enamel anomalies (31.2%) followed by demarcated opacity (7.6%), The lower first molars were the most affected teeth by enamel anomalies followed by upper central incisors, while the least affected teeth were upper lateral incisors.

Conclusion: The result of present study revealed that the prevalence of both dental caries and gingivitis were relatively high among 16 and 17 years old females followed by enamel defect, thus schools and public preventive programs are needed to be implicated among those students to prevent further progression of the above mentioned diseases and this will involve dental health education, improvement of dental knowledge and attitude towards both proper oral hygiene and nutrition.