

**Oral health status and treatment
need among workers of
EL - Kubaisa cement factory
In Anbar Governorate**

A Thesis Submitted by

Mohammed Ismaeel Abdullah

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Supervised by

Prof. Athraa M. AL- waheb

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Abstract

Background: Many agents affect the oral health including environmental and occupational factors. A lot of enquiries were directed that occupational exposure to substances like cement effect the oral health. The aim of the study was to evaluate the prevalence of dental caries, periodontal disease, tooth wear and dental treatment need among workers of the EL-Kubasia cement factory.

Material and methods: The reading of Oral health condition was by DMFT index and treatment need, community periodontal index and treatment need (CPITN) were carried out according to WHO (1997) using CPI probe and tooth wear according to Smith and Knight index(1984). All these were studied according to duration and wearing mask. Across sectional study, involve 192 subjects, 95 exposed and 97 non exposed workers were examined from EL-Kubasia cement factory with age 25-55 years.

Results :The mean± Stander deviation of DMFT among exposed and non exposed workers was (6.94±3.80) and (6.19±2.66) respectively with Statistically was found no significant differences ($P > 0.05$). According to dental treatment need, the highest percentage among exposed workers was the need for one surface filling (73.7%) followed by two or more surface filling (62.1%), crown (61.1%), extraction (13.7%) and lowest pulp care (2.1%). The prevalence of periodontal disease among the study subjects was 100%. Bleeding and calculus was most frequent observed in the exposed and non exposed workers with statistically no significant differences ($P > 0.05$). While the shallow and deep pocket observed more in exposed than non exposed, with Statistically high significant differences ($P < 0.01$). The prevalence and severity of periodontal disease

among exposed workers was found to be increased with increasing duration and this relation was found to be statistically significant ($P < 0.05$). Among the study subjects 69.5% needed scaling and root planning and 30.5% need complex periodontal treatment. Plaque index score was recorded among exposed workers to be higher than non exposed mean was (1.64 ± 0.39) and (1.39 ± 0.29) respectively, with statistically high significant differences ($P < 0.01$). The prevalence of maximum tooth wear score among exposed workers was higher than non exposed (84.2%) and (38.1%) respectively, with Statistically high significant differences ($P < 0.01$). Occlusal surface was found to be more effected. The prevalence and severity of tooth wear increased with increasing duration and this relation was found to be statistically highly significant in present study ($P < 0.01$). The prevalence and severity of periodontal diseases and tooth wear among workers exposed to cement dust according to wearing mask was found to be statistically no significant ($P > 0.05$).

Conclusion : Along with systemic effects cement dust may contribute inflammation of gingiva, calculus and pockets formation and tooth surface loss. Also it can be concluded that workers, health should be maintained through planning and implementation of sustainable interdisciplinary preventive programs. The aim needs to be directed to the improvement of workers conditions, with emphasize on cement dust exposure.