

**Republic of Iraq
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And Scientific Research
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College of Dentistry**



Depression Status in Relation to Oral Health Condition and Selected Salivary Variables Among 17 Years Old Secondary School Female in Baghdad City

A Thesis

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BY

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Abstract

Background: Depression is a state of low mood and aversion to activity. It can affect a person's thoughts, behavior, motivation, feelings, and sense of well-being. It can affect oral health as a result of neglecting oral hygiene procedures, cariogenic nutrition, avoidance of necessary dental care which leads to an increased risk of dental caries and periodontal disease.

The aim of this study: was to assess the effect of depression status on the severity of dental caries and gingival health condition among 17 years old secondary school female students in relation to certain salivary physiochemical characteristics.

Materials and Methods: The total sample is composed of 500 female students aged 17 years old, who are selected from schools in the First Alrasafa/ Baghdad. The total sample were subjected to Children Depression Inventory questionnaire by Kovacs in 2011. Dental caries was registered according to Manji et al.,1989 Decay (1-4) Missing-Filled surface index, while gingival health status was assessed by using gingival index by Loe and Silness in 1963 and plaque index by Silness and Loe in 1964. Unstimulated salivary samples were collected to measure the flow rate by dividing the volume of collected saliva in milliliter (ml) by the time required for collection in minute (min). From the total sample, subgroups of 45 students were selected from high and low grade of depression to make comparisons between certain oral salivary analysis. All data of this cross sectional study were analyzed using statistical package for social science (SPSS) version 21.

Results: The percentage of occurrence of depression was 100%, they were divided into three grades of depression (high, medium, low). Low depression grade is more occurrence (49%) followed by medium grade (23.8%) then high grade (18.2%). The mean values of caries severity represented by grades of lesion were

higher among high depression grade. While the Filling component was higher among medium and high grade of depression. For different grades of depression, the mean values of plaque index and gingival index were higher in high depression grade. Concerning gingivitis severity, mild and moderate gingivitis were higher in high depression grade while severe type of gingivitis was absent in the present study. For the salivary flow rate, it was higher in low depression grade than high grade. Concerning concentration of salivary magnesium, the mean value was higher in low depression grade, while for both C-Reactive protein and interleukin-6, the mean values were higher in high depression grade. The salivary variables (magnesium, C-Reactive Protein, Interleukin-6) were found to be positively related with caries experience in all grades of depression, except for magnesium and C-Reactive Protein of high grade of depression, was negatively related. For plaque and gingival indices, the same salivary constituents correlated positively in low depression grade, but in high grade, plaque index correlated negatively while gingival index correlated positively with magnesium and negatively with C-Reactive Protein and Interleukin-6.

Conclusion: The result of this investigation revealed that depression has biological plausible association with oral health. Depression increases the experience and severity of dental caries and gingival inflammation, also affects the salivary flow rate and certain constituents of saliva.



جمهورية العراق
وزارة التعليم العالي والبحث العلمي
جامعة بغداد/ كلية طب الاسنان

حالة الاكتناب وعلاقتها بالحالة الصحية للفم ومتغيرات لعابية مختارة لدى طالبات المدارس الثانوية من فئة عمر 17 سنة في مدينة بغداد

رسالة تقدمت الى مجلس كلية طب الاسنان/ جامعة بغداد كجزء من متطلبات نيل درجة
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من قبل الطالبة

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