

**Ministry of High Education and
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Personality Types and Oral Health Conditions in Relation to Nutritional Status and Salivary Hormones among Teachers in Baghdad City

A thesis

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Abstract

Background: In spite of several similarities between people, it remains a common fact that all human beings are different from each other. Although differences can vary from the intellectual to the physical, personality differences remain a key variance in human behavior. Personality types have been proposed to influence the general and oral health. Enneagram personality types were developed in the light of modern psychology to define the nine personality types of human nature.

Aims of the study: The purpose of this study was to identify the personality types and examine oral health status in relation to nutritional status and selected salivary hormones (dehydroepiandrosterone, cortisol, and testosterone) among a sample of female teachers in Baghdad city.

Subjects, Materials and Methods: Female teachers with an age of 29-39 years from randomly selected schools were subjected to personality questionnaire using Riso-Hudson Enneagram Type Indicator to map out the nine personality types (Reformer, Helper, Achiever, Individualist, Investigator, Loyalist, Enthusiast, Challenger, and Peacemaker) and to classify the teachers into nine groups according to the basic personality type. Periodontal status was recorded according to the community periodontal index while caries experience was determined by the Decayed-Missing-Filled Surface index.

The assessment of nutritional status was performed by using anthropometric measurements (height, weight, waist and hip circumferences) to calculate the body mass index and waist hip ratio.

From each of the nine groups, a group of teachers were selected for salivary hormones analysis. Analyses were done by using enzyme-linked immunosorbent assay.

Results: The total teachers were 534 in the six directorates and the mean of ages was 34.34 ± 3.39 years. The study showed that the Helper personality type was the predominant type in the study with highest mean of scores (19.68 ± 0.165). The higher percentage was also found for the Helpers (30.34%) while the lowest percentage was reported for the Enthusiasts (2.62%).

According to the maximum code of community periodontal index, the healthy periodontium showed the highest occurrence (56.55%) while shallow pockets (4.31%) were the lowest. The scores of Individualist type among teachers with healthy periodontium was significantly lower than the scores of Individualist type among teachers with calculus (m.d. =0.95, P=0.003). Regarding caries-experience, the mean value of Decayed-Missing -Filled surfaces was 22.83 ± 0.684 and showed the lowest mean value was recorded among the Achiever type while the highest mean was recorded among the Enthusiast type.

The study showed that teachers with overweight showed the highest percentage according to body mass index (47.75%) and according to waist hip ratio classifications, the highest percentage of the teacher was obese (58.24%). Statistical significant differences were found among the three classifications of body mass index in the Reformer scores, the Peacemaker scores, Individualist scores and the Enthusiasts scores. No statistical significant differences were found in the means of scores of the nine Personality types according to the waist hip ratio.

According to the maximum community periodontal index codes, the statistical significant difference was found in the mean values of waist hip ratio while no significant difference was found in the mean values of body mass index. Regarding caries experience, statistical significant difference was observed in mean values of decayed surfaces among the body mass index classifications. No statistical significant differences were found in mean values of caries- experience among the groups of the waist hip ratio classifications.

A total of 87 teachers were selected from the total sample to participate in salivary hormones analysis distributed throughout the nine personality types. No significant differences were found in the means values of the three salivary hormones among the nine personality types. No statistical significant differences were reported in salivary hormones concentrations according to the maximum community periodontal index codes. In addition to that, correlation between the concentrations of salivary hormones and the values of caries experience was not significant. Regarding weight

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status, only the mean of cortisol concentration showed statistical significant differences where the cortisol showed highest mean value among the obese group.

Conclusions: The identification of personality types and their relations with periodontal disease and dental caries can permit the assessment of the individual's susceptibility and facilitate the improvement of the individual's oral health. In addition to that, personality types could influence nutritional status of the subjects.