

**Republic of Iraq  
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College of Dentistry**



# **The Impact of Oral Health on Quality of Life and Body Composition among Dental Students in Selected Iraqi Universities**

A Thesis Submitted to the Council of the College of Dentistry/University  
of Baghdad in Partial Fulfillment of the Requirements for the Degree of  
Doctor of Philosophy in Dental Science/ Preventive Dentistry

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## **Abstract**

**Background:** The quality of life among dental students is considered as one of the most important public health issues and concerns which is needed for epidemiological studies that could influence on general and oral health.

**Aims of the study:** The purpose of this study was to identify the quality of life and examine oral health status in relation to anthropometric measures and body composition parameters among dental students in some Iraqi universities.

**Subjects, Materials and Methods:** This study included 1364 dental students with age ranges of 18-22 years old from selected Iraqi universities (Anbar, Mosul and Basra). The dental students were classified into three groups according to basic four domains of the quality of life questionnaire. Periodontal status was recorded according to community periodontal index while caries experience was determined by Decayed- Missing – Filled Surface index. All dental students who included in this study were examined for calculating body mass index and waist hip ratio in addition to body compositions analyses by using bioelectric impedance analyzer.

**Results:** The study showed that percentage of fair score for physical, social and environment domains among dental students was higher than that of other scores in the same domain followed by good score except that for psychological domain where fair score was followed by poor score and good score in this domain showed lower percentage.

The data of the present study concerning periodontal status found that higher percentage of dental students was with healthy code 32.1% followed by bleeding and shallow pocket codes 30.9% and 24.8% respectively while lowest percentage was recorded for calculus code 12.2%. The scores of quality of life domains among dental students who had healthy periodontium was significantly higher than scores of other quality of life domains among dental students who had other community periodontal index codes.

Regarding caries-experience, the mean value of Decayed-Missing -Filled surfaces was  $12.64 \pm 0.30$  and showed lowest mean value among good type of all quality of life domains while highest mean was recorded among poor type of all quality of life domains.

According to body mass index and waist hip ratio indices, the study showed that dental students with healthy weight class constitute highest percentage. Statistical significant differences were found among three classifications of body mass index and waist hip ratio in physical, psychological and social quality of life domains. No statistical significant differences were found in mean scores of environment domain according to these indices.

According to community periodontal index codes, highly statistical significant difference was found in mean values of all codes among both body mass index and waist hip ratio indices. Regarding caries experience, statistical significant difference was observed in mean value of decayed surfaces among both anthropometric indices. No statistical significant differences were found in mean values of missing and filled surfaces among both anthropometric indices.

A total sample of dental students who participates in body compositions analysis had illustrated highly significant differences in mean values of three body compositions parameters (muscle mass, fat mass and hydration) among four quality of life domains. In addition to highly statistical significant differences were reported in three body compositions parameters according to maximum community periodontal index codes, caries experience and anthropometric indices classifications.

**Conclusions:** It is clear from this study that quality of life and their relations with dental caries and periodontal disease can permit the interpretation of individual's susceptibility and facilitate the improvement of individual's oral health and also could influence anthropometric measurement and body composition parameters of subjects.