

**FACIAL PROFILE,
OCCLUSAL FEATURES
AND TREATMENT NEED FOR A SAMPLE OF
KARBALAA GOVERNORATE STUDENTS AGED
14 YEARS:
(A CROSS SECTIONAL EPIDEMOLOGICAL STUDY)**

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Abstract

The aim of this oral health survey was to determine the distribution, prevalence and the severity of malocclusion and orthodontic treatment need in relation to gender in Karbala city which represents an area in the mid of Iraq about 100 km south of Baghdad city. The sample consisted of 2248 (1124 males and 1124 females) intermediate school students aged 14 years representing 15% of the total target population. The assessment procedures of facial profile was done by direct extraoral examination and for occlusal features by direct intraoral measurement using vernier, metal feeler gauges and an instrument to measure the rotated and displaced teeth. In summary the following results were obtained:

1. Normal profile was found in 76.6%, convex profile in 12.94% and concave profile in 10.5%. The statistical analysis shows there was a significant correlation at 0.01 level between facial profile types in relation to Angle's classes of molar relation.
2. Class I Angle class was found in 73.88%, class II in 20.92% and class III in 5.20%.
3. The mean overjet of the sample was 3.02mm, while for the mean overbite was 2.5 mm.
4. More frequently subjects had overjet and overbite value ranging between 2-4 mm.
5. The percentage of subject having tooth rotations ($>15^\circ$) was 26.91%, for tooth displacement ($>1\text{mm}$) was 10.27%, for maxillary medial diastema ($\geq 0.5\text{mm}$) was 12.14% and for midline displacement ($>0.5\text{mm}$) was 24.42%.

6. Crowding was more concentrated in the lower anterior segment while the spacing cases were higher and more concentrated in the upper anterior segment. The competent lips were the most frequent type.
7. The treatment need according to IOTN show the subject who need no treatment were about 46.84%, then 27.14% need little treatment, then 12.01% need moderate treatment, then 10.14% great treatment need and lastly 3.87% very greatly treatment need.