Permanent Tooth Size Ratio Assessment for a Sample of Iraqi Patients Aged (14 – 25) Years with Different Malocclusion Types

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Abstract

Information concerning the tooth size and tooth size ratios in human populations is important to clinical orthodontics.

This study was conducted to assess the tooth size and tooth size ratios in the permanent dentition of Iraqi patients aged (14-25) years. The investigation is comprised of clinical examination of (450) patients in dental college of Baghdad university, only (120) patients (60 males, 60 females) out of the total sample were selected to fulfill the specification of study sample. The selected sample divided into 4 malocclusion groups (class I, class II division 1, class II division 2, and class III). Tooth size measurements were performed on the models by using dental vernier, and the tooth size ratios analyzed by using Bolton analysis (1958).

The data were analyzed by computerized statistical program and the following results were found:

1. Mean mesiodistal crown diameter were not statistically significant in both right and left sides.

2. Generally males have a larger mesiodistal crown diameters than females.

3. No Significant gender differences were found for both the overall and anterior ratios.

4. There were no significant differences between class II division 1 and class II division 2 patients.

5. There was statistically significant difference among the three malocclusion groups.

For the overall ratio were class III > class I > class II

For the anterior ratio were class III > class II > class I

6. The class III group was shown to contain a large percentage of tooth size discrepancies.