ABSTRACT

**Background:** The presence of disproportionately sized teeth and arch can make it difficult to obtain occlusion with good alignment, an ideal overjet and overbite. **Purpose:** The objective of this study was to investigate the percentage of dental students in the University of Airlangga utilized through tooth size discrepancy. **Method:** The sample comprises of 24 good quality models with fully erupted and complete permanent dentitions from first left molar to first right molar with good oral hygiene. Students wearing an orthodontic appliance or reporting a history of orthodontic treatment were excluded from the study. Samples are taken according to specific criteria such as two generations prior them has to be pure Malay. The mesiodistal diameter tooth sizes were randomly measured manually from left canine to the right canine using a caliper with 0.01 mm accuracy and as for Bolton Analysis for anterior were calculated assisted using scientific calculator. A paired sample t-test and correlation coefficient were used to evaluate the systematic and random errors of the measurements. **Result:** This study found that there are difference in tooth size discrepancies between male and female according to Bolton’s analysis. From 24 models, 83.34% from 12 male study models and 50% from 12 female study models has anterior tooth width ratios greater than 2 standard deviations from Bolton’s mean. **Conclusion:** The findings from this investigation indicated that there are statically significant differences between the anterior ratio of male and female dentals students values.

**Key Words:** Bolton tooth-size discrepancy, Bolton’s ratios, anterior tooth-size discrepancies;