

OP37 RELATIONSHIP BETWEEN TREATMENT DURATION AND PRE-TREATMENT CASE COMPLEXITY DETERMINED BY THE AMERICAN BOARD OF ORTHODONTICS DISCREPANCY INDEX

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AIMS: To retrospectively evaluate the relationship between the pre-treatment dental cast discrepancy index (DI) scores and total active treatment duration.

MATERIALS AND METHOD: One thousand six hundred and ninety three cases (853 females, 840 males, mean age = 16.3 years) were selected from the archives of nine postgraduate university orthodontic clinics. Pre-treatment cephalometric and panoramic radiographs and dental models were used to determine DI scores. Treatment duration was recorded from the patients' files. Correlation analysis and multiple variable regression analysis were used to determine which variables predict treatment duration at the $P < 0.05$ significance level.

RESULTS: The mean pre-treatment DI score was 16.2 and mean treatment duration was 27.07 ± 11.56 months. A statistically significant relationship was found between DI components and treatment duration. Treatment duration increased approximately 9 days for each point in DI score.

CONCLUSION: Active treatment time may also be different for the various components of the DI as indicated; approximately 12 days for each point increase in overjet; approximately 20 days for each point increase in overbite; approximately 12 days for each point increase in crowding; approximately 21 days for each point increase in occlusion; approximately 30 days for each point increase in lingual posterior crossbite; approximately 29 days for each point increase in buccal posterior crossbite; approximately 18 days for each point increase in other components.