

Volume 79, Issue 3
(May 2009)

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Ryan M. Pulfer, Carl T. Drake, Gerardo Maupome, George J. Eckert, W. Eugene Roberts (2009) The Association of Malocclusion Complexity and Orthodontic Treatment Outcomes. *The Angle Orthodontist*: Vol. 79, No. 3, pp. 468-472.

Original Articles

The Association of Malocclusion Complexity and Orthodontic Treatment Outcomes

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Abstract

Objective: To determine the relationship of the ABO Discrepancy Index (DI) to outcomes for routine malocclusions, and to ascertain whether significant trends in DI scores could be noted among annual samples of patients taken from 1998 to 2004.

Materials and Methods: A total of 716 consecutive patients with permanent dentition from a large urban graduate orthodontics program were sampled over the 7-year span. A group of six researchers with a dental background were trained and calibrated in the various components of the DI method to ensure reproducible criteria and accurate recording of clinical and radiographic data across researchers. Data management and analyses were undertaken by two other investigators who were not involved in data coding.

Results: Only a weak positive association was seen between the DI and Objective Grading System (OGS) and Comprehensive Clinical Assessment (CCA) scores. The DI was not significantly related to a general time trend.

Conclusion: The DI was found to be a reliable and relatively stable index for measuring malocclusion complexity in annual samples of patients. Although the DI is significantly related to outcomes for the most severe malocclusions, it was not a good predictor of outcome for more routine malocclusions. If the minimal acceptable outcome is defined as 30 OGS points, the mean DI (15.7) and the average OGS score (28.2) indicate that many of the malocclusions in patients in the present sample were of potential board quality.

Keywords: [Discrepancy Index](#), [Orthodontic outcomes](#), [Malocclusion complexity](#), [Annual trends](#)

Accepted: July 2008;

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THE ANGLE
ORTHODONTIST

www.angle.org

An International Journal of Orthodontics and Dentofacial Orthopedics

70
YEARS OF LEADERSHIP
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A Publication of the Edward H. Angle Society of Orthodontists and
the EH Angle Education and Research Foundation

Volume 79 (5)

November 2009

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