

Commentary

The authors have attempted to compare a sample of Israeli adolescents to cephalometric statistics produced (or used) by Downs and Steiner. They found that the Israeli sample "is characterized by a convex profile, a retrusive mandible, a steep mandibular plane and protrusive incisors."

A very important item to be considered when attempting any statistical comparison is the selection of the sample to be compared. Eighteen males (probably still undergoing growth changes) and 22 females (possibly more nearly adult) is indeed a relatively small sample. The characteristics required to be included in the sample are rather vague, to wit: Class I (Angle), less than three millimeters of crowding (with no indication of how such crowding was measured), and an "orthognathic" profile determined by clinical observation. This could be called a "normal sample," if all the qualifiers are identified and quantified (which they are not). It is important to note the nature of the samples used for comparison in this study. Downs' sample contained only subjects which exhibited "ideal occlusions." Downs excluded prognathic facial profiles. Steiner's sample consisted chiefly of measurements recorded by Riedel taken from a sample of 52 adults with "normal" occlusions

and modified with measurements from one female whose profile Steiner liked. From that single individual, Steiner added several measurements to enhance his analysis such as SND and upper incisor to NA in both millimeters and angularly. PO to NB measurements were given to Steiner by Riedel and were taken from a sample of 30 adult males and 30 adult females with normal occlusions. Measurements of lower incisor to NB were also provided from the same 60 subjects.

Critical to utilizing information taken from the Israeli sample is the "clinical observation" of orthognathism. Certainly incisor protrusion and facial convexity would be affected by this judgment qualification.

Several statistical tests were mentioned such as Manova analysis, "t"-tests, etc., but one must remember that the total sample consisted of a heterogenous mix of only 40 adolescents. It is doubtful that this paper identified "specific cephalometric values to be established for the Israeli population."

The significance of the "Fathers Country of Birth Distribution" is completely lost in the context of the paper.

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