

Evaluation of Posed Smile Characteristics in Different Morphological Facial Forms for an Iraqi Adults Sample with Class I Normal Occlusion

A thesis

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Abstract

The smile is the cornerstone of social interaction that influences a person's perceived attractiveness. So orthodontists should first look how the smile coincides with the harmony of the face. The purposes of this study were to determine the difference of outer commissure width, inter-labial gap, smile index, maxillary interdental width, buccal corridor percentage and maximum incisor show during posed smile in both genders and in different morphological facial forms, and to correlate the outer commissure width with face width, inter-labial gap with facial height, and modified smile index with facial index for a sample of Iraqi adults.

The sample consisted of 75 Iraqi adults (37 males and 38 females) aged 18-25 years with Class I occlusion. It was classified into three groups. The first group (consisting 24 adults, 12 males and 12 females) had a mesoprosopic facial type. The second group (consisting 26 adults, 13 males and 13 females) had a euryprosopic facial type. The third group (consisting 25 adults, 12 males and 13 females) had a leptoprosopic facial type. Clinical examination and digital videograph with posed smile were performed for each individual. The videographs were imported to the PMB- picture motion browser to capture social posed smile frame. Six linear measurements were measured for each frame using AutoCAD program 2007. The following results were obtained:

1. Buccal corridor percentages in both genders were larger in euryprosopic facial type than the other facial types.
2. There was direct correlation between the outer commissure width of posed smile and facial width.
3. The linear measurements of posed smile characteristics in young adult males were higher than that of young adult females except for the maximum incisor show and interlabial gap.

It has been concluded that the modified smile index cannot be reliable in establishing estimation intervals for the smile zone, and that euryprosopic facial type showed more specific posed smile characteristics as compared to other faces.