## **Evaluation of Buccal Corridor in Posed Smile for Iraqi Adults Sample with Class I Normal Occlusion**

A thesis

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## Abstract

The purposes of this study were to determine the soft tissues parameters that affect the buccal corridor widths, to determine the difference of buccal corridor widths between both sides in both genders and in normal and gingival smile line groups, and to correlate the buccal corridors widths with face width and smile index for sample of Iraqi adults.

The sample consisted of 60 Iraqi adults (30 males and 30 females) aged 18-25 years with Class I pattern. It was classified into two groups. The first group (totaling 30 adults, 15 males and 15females) had a gingival smile line. The second group (totaling 30 adults, 15 males and 15females) had a normal smile line. Clinical examination and digital photograph with posed smile were performed for each individual. Six linear soft tissue measurements were measured for each photograph using AutoCAD program 2008.

To evaluate the buccal corridor widths in both normal and smile line groups quantitatively, correlation analysis was performed between buccal corridors and other soft tissue measurements. The following results were obtained:

Buccal corridor width was smaller in normal smile males and females than gingival smile males and females.

Buccal corridor width was larger in males than in females in normal smile line group, and larger in females than males in gingival smile line group.

There was significant difference between right and left buccal corridor widths in normal smile line group and no significant difference in gingival smile line group for both genders.

There was direct correlation between buccal corridor widths and outer commissural width in normal smile line group, and direct correlation between buccal corridor widths and face width, but statistically non significant.

There was no significant correlation between buccal corridor widths with smile index.