

Original Research

Evaluation Of Preference Of Chin Prominence in Male and Female - A Survey Study

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ABSTRACT:

Introduction: The purpose of this study was to determine the preferred chin prominence in male and female. **Methods:** Five “male” and five “female” silhouette profiles differing only in the degree of mandibular retrognathism or prognathism (-25°, -18°, -11°, -4°, and +3° facial contour angles) were created. Evaluator was then asked to choose the most preferred chin among the silhouette for both male and female. The evaluators comprised of 10 orthodontist, 10 adult orthodontic patients, and 10 parents of patients. **Result:** In general all preferred more prominent chin for male and less prominent chin for female. For male -4 degree and for female -11 degree was most preferred. There was no significant difference between 3 evaluators groups preference.

Keywords: Chin Prominence, Soft-tissue esthetics, Orthodontic diagnosis

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INTRODUCTION

An important aspect of orthodontic diagnosis and treatment depends on placing the dentition in the skeleton to achieve maximum soft-tissue esthetics. There was a paradigm shift from the standards of the specialty in the first half of the 20th century, when optimizing the angulation of the teeth in the underlying skeletal structures was the driving force behind orthodontic treatment planning. Early studies attempted to find the ideal dental and skeletal cephalometric relationships to produce balanced, stable results.¹⁻³ However, they paid little attention to the importance of the soft tissues of the face in maximizing facial harmony and esthetics.

In a challenge to the belief that merely positioning the teeth and skeleton in the “ideal” positions would produce good facial esthetics, Burstone⁴ advocated that soft-tissue profile analysis should be an important consideration in orthodontic treatment planning.

Ricketts stressed the importance of balance of the lips

relative to the nose and the chin, pointing out that overly protruded or retruded lips were unharmonious and unesthetic.⁵

It has been proved that nose, chin and lips are three main factors in facial aesthetic. Subsequently, several studies evaluated the lip profile preferences of orthodontists and laypeople by having them choose what they considered to be the most pleasing profiles from groups of photographs or silhouettes. Peck and Peck⁶ in 1970, found that the public preferred lip profiles that were consistently more full and protrusive than those considered to be ideal by orthodontists according to cephalometric standards. Yehezkel and Turley⁷ reported that the public now prefers a more full and more convex facial profile for black people than previously. Foster⁸ found that lay men chose fuller lip profiles for children than adults. Czarnecki et al⁹ also reported that subjects preferred fuller lips for females, but stated that lip esthetics was closely linked to nose and chin positions; subjects

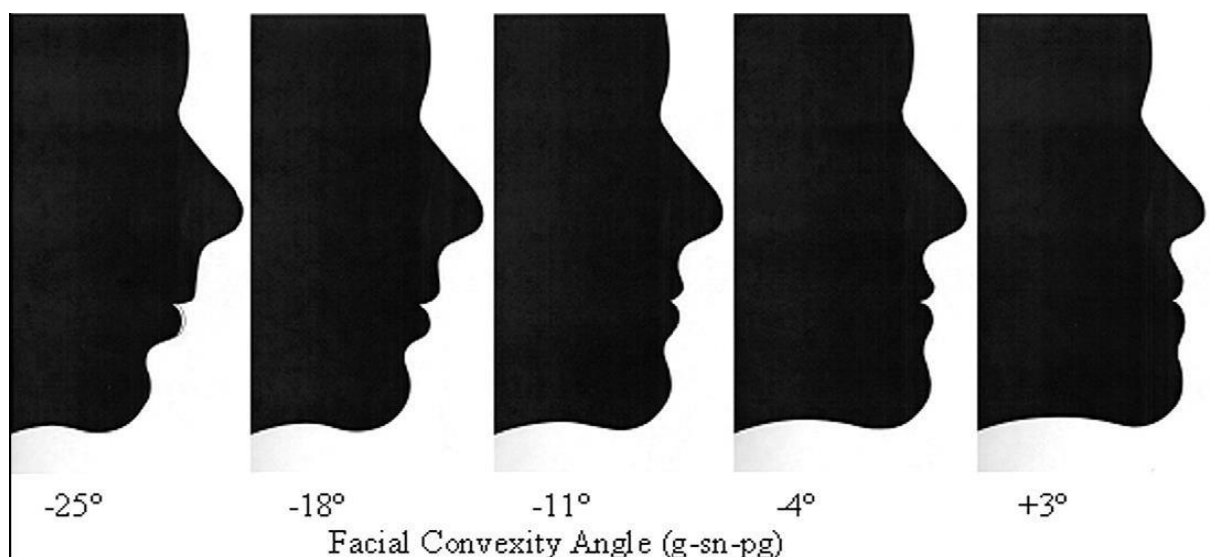
preferred a more protrusive lip profile with a larger nose and a more forward chin position.

So several studies have been done regarding the lip position, but very few studies had been done for preferred chin position. Nanda and Ghosh¹⁰ reiterated the importance of balancing the relationships of nose, lips, and chin for orthodontic patients.

So the purpose of this study was to check if there was a difference in preferred chin position between male and female.

MATERIAL AND METHOD

The evaluators were 10 orthodontists, 10 orthodontics patient, and 10 parents of the orthodontist patients. The profiles were presented individually in 2 sets. The evaluators were instructed to assume that the first set of profiles was of a man. The second set of profiles, unchanged but presented in a different order, was assumed to be of a woman.



RESULT

We had first given particular name to each profile from A to E starting from mostretrusive profile to most protrusive profile respectively. Then we observed frequencies for each profile different for male and female, and separately for all evaluator group was recorded and presented in table 1 and table 2.

Table: 1 For male profile

Evaluators	Profile A	Profile B	Profile C	Profile D	Profile E
Orthodontist	0	1	2	5	2
Patients	0	1	3	4	2
Parents	0	1	3	4	2

Table: 2 For female profile

Evaluators	Profile A	Profile B	Profile C	Profile D	Profile E
Orthodontist	0	4	5	1	0
Patients	1	2	4	2	1
Parents	2	2	5	1	0

DISCUSSION

Orthodontists encounter various mandibular positions in their patients. Moderate to extreme retrognathic and prognathic mandibular positions are often found, and challenging treatment decisions must be made to maximize the esthetic and functional benefits to each patient. When surgical intervention is a viable option, concern should be paid regarding chin position. If possible the decision of chin prominence should be decided by the patients, which can be helped by the different silhouette of the same patient with different chin prominence.

From this study it was proven that more prominent

chin is preferred for male and less prominent chin is preferred for female. For female ideal facial convexity angle of -11° was preferred and for male, less negative (more prominent chin) facial convexity angle -4° was preferred. So this has to be remembered when deciding the orthognathic surgery for chin. A slightly prominent chin can be left in male patient, because it is preferred in male. This will prevent unnecessary surgical damage to the patient, and sometime may prevent the orthodontist from loss of confidence of patient on him, if the result after surgery, according to patient is not esthetically improved, and even worst if patient find the result unesthetic. Same applied to

female with a exception that less prominent chin is preferred in female patients.

From this study it was also proven that there was no significant difference between evaluators observation regarding the preference of prominent chin for male, and less prominent chin for female.

Positioning of chin is important factor in facial esthetic along with lips and nose. So whenever we decide the surgery for chin prominence we have to be careful, and we have to properly talk to the patient regarding the end result of surgery and take proper consent regarding it.

Androgynous silhouettes, as in this study, for evaluation of profile esthetics have been advocated by previous authors because this eliminates other possible esthetic variables such as hair, complexion, and eyes.^{8,9} However, it might also detract from the realism of the profile as perceived by evaluators. Similarly, using a silhouette might have challenged the evaluator's imaginations when they were asked to distinguish between "male" and "female" profiles. It is likely that the chin prominence preferences for individual patients, whose other facial features are not obscured from view, can differ depending on the influence of these other factors. Because of this, our data are most useful for distinguishing trends in chin profile preference in ideal profile rather than for pinpointing ideal chin positions based on specific facial profile features. Therefore, the ideal chin positions for specific patients should be determined individually based on reasonable clinical judgment, rather than on formulas used to describe population means.

CONCLUSION

The results of this study showed that chin position does significantly influence preferred profile in male and female. In general, preferred chin positions is -11° for female and -4° for male. These results are statically significant for all observers group, favoring a general trend towards the prominent chin in male and less prominent chin in female.

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