



## COMPARISON OF SUBJECTIVE ESTHETIC PERCEPTIONS OF DENTISTS WITH DIFFERENT GENDER AND CLINICAL EXPERIENCES WITH OBJECTIVE DENTOLABIAL ESTHETIC MEASUREMENTS

### ABSTRACT

**Objective:** This study aimed to evaluate the consistency of specific measurable dentolabial criteria between the esthetic values accepted in the literature and the subjective opinions of physicians.

**Materials and Methods:** Four associate professors and four research assistants in the field of prosthodontics were selected as the examiners in the study. Photographs of smiles (focusing on the mouth region of the face) taken from 200 volunteers were examined. The results of the objective measurements of the curvature of the incisal edge and lower lip parallelism, the incisal edge and lower lip contact, the laugh line, the buccal corridor and the interincisal line and midline variables, and the subjective assessments of the evaluators were compared using Cochran's Q test.

**Results:** Esthetic perception is subjective; however, there was a significant correlation between the objective measurements and subjective perceptions in the incisal edge and lower lip parallelism, laugh line, and buccal corridor variables. No statistically significant difference was found between the objective computer measurements and the evaluations of the male and female examiners or between the perceptions of the specialists (associate professors) and the research assistants.

**Conclusion:** There is no consensus between esthetically objective findings and subjective perceptions.

**Keywords:** Dentolabial analysis, esthetic, subjective perceptions, prosthodontic treatment.

 Şükriye Ece Geduk<sup>1</sup>  
 \*Onur Şahin<sup>2</sup>  
 Neslin Velioglu<sup>3</sup>

ORCID IDs of the authors:

Ş.E.G. 0000-0003-2569-8428

O.Ş. 0000-0002-8018-6946

N.V. 0000-0003-0210-3348

<sup>1</sup> Department of Prosthodontics, Faculty of Dentistry, Zonguldak Bulent Ecevit University, Zonguldak, Turkey

<sup>2</sup> Department of Prosthodontics, Faculty of Dentistry, Alanya Alaaddin Keykubat University, Alanya, Turkey.

<sup>3</sup> Department of Prosthodontics, Faculty of Dentistry, Zonguldak Bulent Ecevit University, Zonguldak, Turkey.

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## **INTRODUCTION**

Since a smile is one of the most important means of nonverbal communication, it has an important place in an individual's social identity and self-perception.<sup>1</sup> A beautiful smile enables an individual to be warmly accepted in social interactions. The increasing importance of esthetics and social communication has placed greater emphasis on the prominence of smile esthetics in dental treatments.<sup>2-5</sup>

Esthetics is not absolute; it is highly subjective.<sup>6</sup> Although the perception of beauty is a subjective experience, there are some universal rules that transcend this subjectivity and provide objective criteria about what is pleasing to the human eye. These basic esthetic standards can enable clinicians to achieve satisfactory, quantitative, scientific and predictable designs.<sup>7</sup> The physician must understand the basic components of the smile to regulate and optimize the esthetics by understanding the complex relationships between the teeth, gum structure, and lips.<sup>8-9</sup>

Many studies in the literature have evaluated dental esthetics from different perspectives.<sup>5,8,10</sup> Mauro Fredeani<sup>10</sup> stated that, to achieve successful esthetic results, it is essential to plan esthetic dental and gingival treatments after the facial, dentolabial, and phonetic parameters are identified.

In the present study, the compliance of some measurable dentolabial criteria, which are subjectively evaluated by physicians who are experts in the field of prosthodontics working on smile design, is compared with objective measurements. Thus, it aimed to be a guide in terms of identifying the recommended factors for esthetic treatment planning.

## **MATERIALS AND METHODS**

This three-stage study includes eight examiners who subjectively evaluated the smiles in the photographs of 200 volunteers as being either "esthetic" or "non-esthetic" based on five different dentolabial criteria: incisal edge parallelism, incisal edge and lower lip contact, laugh line, buccal corridor, interincisal line, and

midline. The same photographs were also evaluated using objective measurements within the limits stated in the literature, and the objective results were compared with the subjective findings.

### ***a) Study Sample***

The study was carried out using the photographs of 200 volunteer participants from Zonguldak Bülent Ecevit University Faculty of Dentistry, Zonguldak, Turkey. The participants were informed about the scope of the study, and they signed a consent form. Approval for the study was obtained from the Zonguldak Bülent Ecevit University Clinical Research Ethics Committee with the conclusion 2018/24 (dated 19/12/2018 and Protocol No. 2018-246-19/12).

To eliminate the effect of color differences on esthetic perception, the following criteria were applied. Participants who had previously received orthodontic treatment or who had any restoration, coloration, or tooth deficiency at the anterior teeth, active periodontal disease, poor oral hygiene, or trauma to the jaw-face area, were excluded from the study so as not to affect the results.

### ***b) Procedure for Taking the Photographs***

To standardize the photographs, the participants were positioned with their hands hanging to the side and their feet slightly open while the head was fixed with ear bars (cephalostat) and the occlusal plane was parallel to the ground with the forehead supported (Figure 1).



**Figure 1:** Taking photo recordings

To ensure this parallelism, the participant was situated so that the Frankfurt horizontal plane was parallel to the ground using external reference points (porion and orbitale points).<sup>11</sup> Care was taken to ensure that the faces of the individuals did not contain any elements that could be distracting and affect the esthetic evaluation, such as herpes, excessive beards, piercing accessories, and intensive make-up.

Photographs were taken using a digital camera (Canon EOS 7D Mark II), macro lens (Canon EF 100mm f / 2.8L Macro IS USM), twin flash (Canon Macro Twin Lite MT-24EX), and a tripod (WT3770). The Canon 100 mm 1:1 magnification prime lens, which was used to produce all the images, was preferred to minimize the distances and magnifications due to distance. All the photographs were taken by the same person, under the same indoor artificial fluorescent lighting with a shutter speed of 1/125, an aperture of F32, and an ISO 200 setting in manual mode. The tripod and the camera were not moved until the photo shoot was finished. Using Adobe Photoshop CC 2017 (San Jose, CA, USA), the photographs were cropped to show the teeth, lips, tip of the nose, and mentolabial sulcus. The photographs were numbered from 1 to 200 and saved in Joint Photographic Experts Group (JPEG) format.

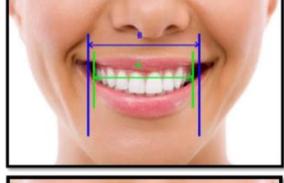
#### ***c) Selecting the Examiners and Evaluating the Photographs***

Four associate professors and four research assistants from Zonguldak Bulent Ecevit University Faculty of Dentistry Department of Prosthodontics were selected as the examiners. All the photographs were delivered to the examiners using separate external memory drives and separate forms, each containing five pages. Thus, any time constraint related to the evaluation and the possibility of being influenced by each other were prevented. While examining the photographs, the examiners were informed that they should disregard the shape, arrangement, size of the teeth, and the form of the lips.

#### ***d) Determining the Criteria and Analyzing the Photographs***

In this study, the most common variables, such as incisal edge and lower lip parallelism, incisal edge and lower lip contact, laugh line, buccal corridor, interincisal line, and midline, which are objectively measurable according to concrete parameters, were examined. The examination criteria and the evaluation intervals are presented in Table 1. All measurements were performed using Adobe Photoshop CC 2017.

**Table 1.** Summary of the criteria and range used for this study

Criteria in this study	Definition	Classification criteria in computer measurement	Measurements on Adobe Photoshop CC 2017
<b>Incisal parallellism</b>	The incisal edge or smile line is defined as an imaginary line passing through the cutting edges of the four upper-front teeth and the tip of the canine teeth.	The parallel relationship was classified as “esthetic” and the straight or reverse curvature relationship was classified as not esthetic	
<b>Incisal edge and lower lip parallellism</b>	It is the contact relationship of the incisal edge with the upper limit of the lower lip.	The light contact relationship was classified as “esthetic” and non-contact or covering position classified as “not esthetic”.	
<b>Laugh line</b>	Lip line or laugh line; is the amount of teeth that appear in the vertical direction during the smile.	The middle laugh line was classified as “esthetic” and the low or high laugh line was classified as “not esthetic”.	
<b>Buccal corridor</b>	Labial or buccal corridor (also called negative space); is the gap formed between the buccal surfaces of the posterior teeth and the corners of the mouth during smile.	Buccal corridor widths between 2-15% were classified as “esthetic” and widths outside this range were classified as “not esthetic” Proportional measurement of the buccal corridor: $(A-B) / A * 100$	
<b>Interincisal line and midline</b>	The line through the nasion and philtrum reference points is midline of the face and the line between the upper incisors is generally referenced for dental midline.	Midline deviations up to 4mm were classified as “esthetic”, and deviations more than 4mm were classified as “not esthetic”	

**e) Statistical Analysis**

In this study, the data obtained from eight examiners and the computer measurements were transferred to the IBM SPSS V23 software program. In the data set, descriptive statistics on the data obtained as a result of the examiners’ evaluations and the computer measurement were combined with all the values related to the five dentolabial variable categories. Cochran’s Q Test was performed to determine the concordance between the specialists (the associate professors)

(S1, S2, S3, S4) and the research assistant (A1, A2, A3, A4) examiners, between the male and female examiners, and between all the examiner subcategories and computer measurements. The analysis results are presented as frequency (percentage). Significance level was taken as  $p < 0.05$ .

**RESULTS**

The results of the compliance between all the examiners and the computer measurements for incisal edge parallelism are shown in Table 2.

**Table 2.** Compliance results for incisal edge parallelism

Examiners	Not esthetic*	Esthetic*	Multiple comparison	Cochran Q	p
S1	42	58	de		
S2	46.5	53.5	cd		
S3	39	61	ade		
S4	37.5	62.5	d		
A1	23.5	76.5	b	175.005	<0.001
A2	67.5	32.5	c		
A3	20.5	79.5	c		
A4	51.5	48.5	ae		
Computer	43.5	56.5	ad		

\*n(%), a-e: there is no difference between examiners with the same character in each measurement.

According to Cochran's Q Test, there was a statistically significant correlation between S1, S2, S3, S4, A4, and the computer measurement ( $p < 0.001$ ). Moreover, there was a statistically

significant correlation between all the specialists and the computer measurements ( $p = 0.164$ ) (Table 3).

**Table 3.** Compliance results for incisal edge parallelism between specialists and computer

Examiners	Not esthetic*	Esthetic*	Multiple comparison	Cochran Q	p
S1	42.5	57.5	a		
S2	46.5	53.5	a		
S3	39	61	a	6.514	0.164
S4	37.5	62.5	a		
Computer	43.5	56.5	a		

\*n(%), a-e: there is no difference between examiners with the same character in each measurement.

The results of the compliance between all the examiners and the computer measurements for the relationship between the incisal edge and the lower lip variables are shown in Table 4.

According to Cochran's Q Test, there was a statistically significant correlation between S1, S2, and the computer measurements ( $p < 0.001$ ).

**Table 4.** Compliance results for relationship between the incisal edge and lower lip

Examiner	Not esthetic*	Esthetic*	Multiple comparison	Cochran Q	p
S1	58.5	41.5	ae		
S2	71	29	ad		
S3	42.5	57.5	bc		
S4	50	50	ce		
A1	46	54	bce	195.868	<0.001
A2	82	18	d		
A3	53	47	ce		
A4	36	64	b		
Computer	65.5	34.5	a		

\*n(%), a-e: there is no difference between examiners with the same character in each measurement.

The results of the compliance between all the examiners and the computer measurements for laugh line are shown in Table 5. According to

Cochran's Q Test, there was a statistically significant correlation between S2, S3, A1, A3, A4, and the computer measurements ( $p < 0.001$ ).

**Table 5.** Compliance results for the laugh line

Examiner	Not esthetic*	Esthetic*	Multiple comparison	Cochran Q	p
S1	70	30	e	166.548	<0.001
S2	57.5	42.5	abde		
S3	49.5	50.5	d		
S4	24.5	75.5	c		
A1	51.5	48.5	ac		
A2	69.5	30.5	be		
A3	54.5	45.5	ad		
A4	51	49	abd		
Computer	52	48	ad		

\*n(%). a-e: there is no difference between examiners with the same character in each measurement.

The results of the compliance between all the examiners and the computer measurements for the buccal corridor are shown in Table 6. According

to Cochran's Q Test, there was a statistically significant correlation between S2, S3, A1, A3, A4, and the computer measurements ( $p < 0.001$ ).

**Table 6.** Compliance results for buccal corridor

Examiner	Not esthetic*	Esthetic*	Multiple comparison	Cochran Q	p
S1	74.5	25.5	be	253.736	<0.001
S2	59.5	40.5	de		
S3	59	41	d		
S4	17	83	c		
A1	39.5	60.5	a		
A2	77	23	b		
A3	51.5	48.5	ad		
A4	38	62	a		
Computer	52	48	ad		

\*n(%). a-e: there is no difference between examiners with the same character in each measurement.

The results of compliance between all the examiners and the computer measurements for the interincisal line and the midline are shown in Table 7. According to Cochran's Q Test, there

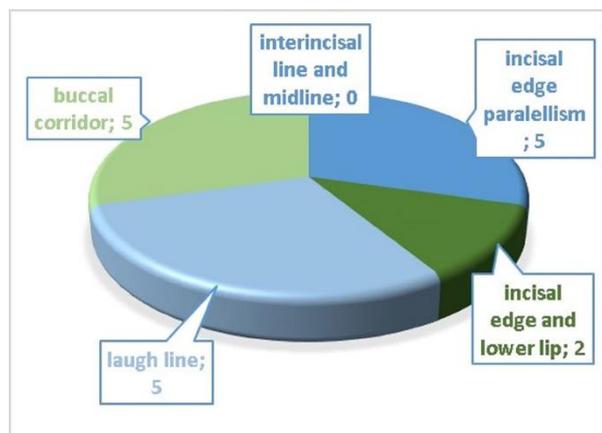
was no statistically significant correlation between the examiners and the computer measurements for those two variables ( $p < 0.001$ ).

**Table 7.** Interincisal line and midline alignment results

Examiner	Not esthetic*	Esthetic*	Multiple comparison	Cochran Q	p
S1	85	15	c	556.475	<0.001
S2	28	72	de		
S3	28.5	71.5	de		
S4	15.5	84.5	e		
A1	22	78	de		
A2	79	21	c		
A3	45.5	54.5	b		
A4	35.5	64.5	bd		
Computer	6	94	a		

\*n(%). a-e: there is no difference between examiners with the same character in each measurement.

The compliance levels between the computer measurements and the examiners are shown in Figure 2.



**Figure 2:** Schematic representation of computer measurements and rating of agreement between observers

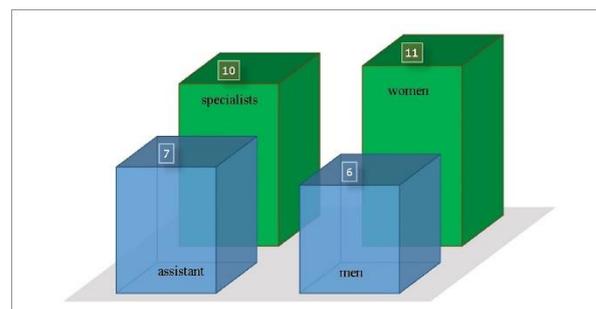
When the findings were evaluated, in general, it was observed that there was no statistically significant agreement between the mean of all the examiners (subjective perception) and the computer measurements (objective measurements) when each dentolabial variable was compared ( $p < 0.001$ ).

In terms of evaluating the incisal edge and lower lip contact relationship, laugh line, buccal corridor, interincisal line and midline, no statistical correlation was found between the four experienced specialists (associate professors) and the four research assistants (specialty students) and the computer measurements ( $p < 0.001$ ). It was determined that the esthetic perception was compatible between the specialists and the computer measurements based on the incisal edge parallelism criteria ( $p = 0.164$ ).

There was no statistically significant correlation between the four male and four female examiners and the computer measurements for all the esthetic criteria variables ( $p < 0.001$ ).

When the entire data set was evaluated, although the difference between the specialists and research assistants and between the men and women was not statistically significant, the numerical results showed that the subjective evaluations of the specialists were comparable to the research assistants by 10/7 and the women to

men by 11/6 were more consistent with the objective computer measurements (Figure 3).



**Figure 3:** Schematic representation of compliance levels of specialist / assistant and female / male observers with computer measurements respectively

## DISCUSSION

In previous studies, dental evaluation measurements were made on extracted teeth,<sup>12,13</sup> while in recent studies, plaster models, computer-based images, or intraoral evaluations have been conducted.<sup>12,14-17</sup> Hasanreisoglu *et al.*<sup>14</sup> photographed the faces of 100 dental students in full smile, obtained a plaster model from their upper jaws, and measured the anterior tooth dimensions, the presence of golden ratio, and the relationship between the facial ratios of the anterior teeth on both the models and the computer-based images. In the present study, due to the high number of samples, it was thought that taking photographs of smiles would be the most practical method, so the photographs taken from 200 students were transferred to a computer and the measurements were made in Adobe Photoshop CC 2017.

Nomura *et al.*<sup>18</sup>, Krishnan *et al.*<sup>19</sup>, and Chang *et al.*<sup>20</sup> received photographic records of posed smiles on the grounds that they were reproducible. Based on the same reasoning, in the present study, the participants were photographed with a posed smile. To avoid the factors that could affect the esthetic perception, such as hair, fashion, and eyes, and to focus on the lower 1/3 of the face, the photographs of the participants were cropped from the tip of the nose to the chin.

Esthetic perception is a subjective concept; it varies from person to person and it can be affected by situations, such as age, gender, occupational group, social status, and cultural preferences.

Accordingly, there may be a difference of opinion between dentists and individuals (laypersons) who have not received dental education.<sup>21-24</sup> Basaran *et al.*<sup>25</sup> included painters as well as specialists and laypersons in their study evaluating the effect of buccal corridors on esthetic perception because painters and specialists received esthetic training in their professions. Many studies<sup>26-28</sup> have shown that the oral esthetic assessments of specialists or dentists are more critical and sensitive than those of individuals who have not received dental training. Consequently, in the present study, an evaluator group consisting of four associate professors and four research assistants, who are experts in the prosthodontic department, were chosen because their awareness and discrimination were believed to be higher than general dentists. Individuals who did not receive dental training were not selected to be examiners in the study because the inclusion criteria consisted of dental terms and it was necessary to have a dental education to make an accurate assessment.

Basting *et al.*<sup>29</sup> compared specialists and general dentists' esthetic perceptions on smile and face photographs; they reported that the evaluations made by general dentists were more positive than the ones made by the specialists in both photography groups. Kokich *et al.*<sup>30</sup> examined asymmetric and symmetrical changes on the teeth; they obtained evaluations from both specialists and general dentists because they are more critical than laypersons. According to the results of the present study the scores of the specialist examiners were more compatible with the objective measurements than the scores of the research assistant examiners.

Wolfart *et al.*<sup>31</sup> examined the relationship between subjective judgments and objective measurements on upper anterior teeth; they reported that there was no significant difference between the subjective perceptions of men and women. Chang *et al.*<sup>20</sup> evaluated the variability of facial attractiveness and smile esthetics according to gender; they discovered that the raters' sex had no effect on the results. While there no

statistically significant difference was found between the male and female examiners in the present study, the compliance of the subjective scores with the objective computer measurements was higher for the female examiners than the male examiners.

Different criteria have been considered in the literature to evaluate esthetic perception. The present study evaluated the most common variables (incisal edge parallelism, incisal edge and lower lip contact relationship, laugh line, buccal corridor, and interincisal line and midline) because they are objectively measurable according to concrete parameters.

Clinicians usually increase overbite so that the incisal edge follows the lower lip parallelism. Ker *et al.*<sup>32</sup> found that when the line passing through the incisal edges of the upper teeth follows the concave curvature of the lower lip, laypersons evaluated that to be esthetically ideal. In their study, Parekh *et al.*<sup>33</sup> found that ideal curved smile arches were more acceptable (84–95%) than straight smile arches, which were only 50–60% acceptable. The change of lip contour from person to person may have an effect on the smile arc, but it is critical that the line passing through the incisal edges of the upper teeth follows the lower lip in parallel.<sup>20,32,34-36</sup> When the results of the present study were analyzed, it was observed that five of the examiners were in agreement with the objective measurements made on the computer, while the other three did not agree with the literature knowledge about the incisal edge parallelism. Moreover, all four of the specialist examiners agreed with the objective computer measurements in terms of their esthetic views on incisal edge parallelism. The results reinforce the idea that the imaginary line passing through the incisal edges of the upper incisors is parallel to the upper limit of the lower lip in an esthetically pleasing smile.

In an ideal smile, while the central and canine teeth are required to have light contact with the lower lip, the lateral teeth are expected to be shorter in the range of about 0.5–1.5 mm from the

lower lip.<sup>37,38</sup> It has been reported that a smile in which the upper teeth do not contact the lower lip, or in which they slightly touch the lower lip, is more esthetic than a smile in which the teeth are covered by the lower lip.<sup>39</sup> When the results of the present study were examined, the computer measurement results were consistent with only two of the eight examiners. Almost all the examiners who did not comply with the objective computer measurements evaluated the incisal edge and the lower lip contact in the photographs as being more “esthetic” than “non-esthetic”. This may be due to the fact that there is no esthetic consensus on the relationship between the incisal edge and the lower lip contact, or that this relationship affects esthetic perception less than other criteria.

Kokich *et al.*<sup>30</sup> examined the effect of the distance between the lip and the teeth on esthetic appreciation in the case of smiles; in that study, the orthodontists and laypersons both stated that gingival visibility of 3 mm or more had a negative effect on gingival appeal, and even the general dentists did not perceive the height of 4 mm to be esthetically undesirable. In another study<sup>40</sup>, orthodontic experts found 2 mm of gingival visibility to be esthetically negative; for dentists and laypeople 4 mm of gingival visibility was found to be esthetically negative. Although these two studies stated that general dentists have a higher acceptable threshold than orthodontists, the results of both indicate that gingival visibility of 1–2 mm can be accepted as esthetically pleasing by both groups. Since the appearance of the gingiva and the upper anterior teeth decreases with aging, it may be better for the patient to have a small amount of gum visibility in a prosthetic treatment.<sup>30</sup> Ker *et al.*<sup>32</sup> considered that, while the ideal gingival visibility in a smile is 2.1 mm, lips covering the teeth with up to a 4 mm laughing line is an acceptable lower limit, and the 3.6 mm gum line is an acceptable upper limit. When the results of the present study were evaluated, agreement was observed between the majority of the examiners and the computer measurements. Thus, it can be said that there is a general consensus about the effect of the laugh line on esthetic

perception. In the planning of treatment, it is recommended that the laugh line be designed in such a way that 3/4 of the upper incisors be visible and the gum line limit should be 1–2 mm to ensure a more esthetically pleasing result. The different responses given by some examiners may be related to the perception that a high laugh line creates a cheerful impression in individuals.<sup>41</sup>

Ritter *et al.*<sup>42</sup> stated that the width of the buccal corridor is 1 mm larger in men than women. Thus, the buccal corridor measurement was calculated proportionally in order to avoid this difference. In the literature, there is no consensus on the effect of buccal corridor width on smile attractiveness. Hulsey<sup>43</sup>, Ritter *et al.*<sup>42</sup>, and Johnson *et al.*<sup>44</sup> argued that the width of the buccal corridor, which they call negative space, does not affect the attractiveness of a smile. Moore *et al.*<sup>45</sup> examined the effects of buccal corridors on the attractiveness of smiles; while smiles with minimal buccal corridors received the most appreciation, those with large buccal corridors were found to be esthetically insufficient. Basaran *et al.*<sup>25</sup> found that a 2% wide smile type was the most esthetically pleasing and a 28% narrow smile type was the least pleasing. Ioi *et al.*<sup>46</sup> reported that while narrow buccal corridors were more popular than wide ones, the esthetic acceptability limit was 10–15% of the buccal corridor width. When the results of the present study were examined, it was seen that there was agreement between the computer measurements and the evaluations of the majority of the examiners. When evaluating the buccal corridor width in prosthetic diagnoses and treatments, a satisfactory result can be obtained when the 2–15% width range is taken as a reference. It is recommended that clinicians avoid creating a very wide or very narrow buccal corridor when finishing treatment. The reason for the differences of opinion of the examiners who did not comply with the computer measurement results may be due to the same reason reported in studies that emphasized that the buccal corridor does not affect esthetic perception.<sup>42-44</sup>

In the study by Kokich *et al.*<sup>40</sup> orthodontists found that the 4 mm midline deviation was

esthetically unacceptable, while general dentists and laypersons could not distinguish the midline deviation even when it was 4 mm. Springer *et al.*<sup>36</sup> examining the effect of midline deviation on smile esthetics; they found the maximum acceptable midline deviation amount to be 3.2 mm. Ker *et al.*<sup>32</sup> evaluated the degree of esthetic appreciation created by various dentofacial parameters in laypersons; they found that the maximum tolerable deviation was 2.9 mm, but they reported that it was noteworthy that 1/3 of the participants found the 4.3 mm midline deviation to be acceptable. In the present study, the computer measurement results did not match the evaluations of any of the examiners. All the examiners evaluated the midline deviation more critically than the computer and their “non-esthetic” scores were higher than the objective measurements. This shows that professionally trained examiners consider the 4 mm midline deflection to be more critical and they might not find it to be esthetically pleasing. In contrast, in the literature, a lower tolerance threshold in the midline deviations results in more esthetically pleasing results.

While evaluating the relationship between the dentolabial variables and esthetic perception in the literature, visuals are presented to the participants with computer generated changes and the highest scores or esthetically acceptable ranges are reported. In the present study, natural, unmanipulated smile photos of the volunteers were presented to the examiners to obtain their professional views and the results were compared with the values reported in previous studies. It is thought that the present study is a literature review in terms of the dentolabial variables, and that the consistency of the results is compared with the opinions of the physicians who are professionals in their field; thus, this study makes a scientific contribution to the literature because it is one of the few studies that was performed with this method. It is hoped that the obtained results can guide physicians in terms of the external reference points to be determined during the examination and the factors to be considered about the treatment.

## CONCLUSIONS

In summary, this study found that:

1. In the evaluation of smile esthetics, it was seen that the gender of the examiners did not make a significant difference in the results.
2. Although not statistically significant, when the numerical values were examined, it was seen that the women’s esthetic evaluations were more consistent with the objective measurements than the men’s esthetic evaluations. Similarly, specialists gave answers that were more consistent with the objective measurements than the research assistants.
3. No consensus was found between the esthetically objective findings and the subjective views. It is thought that the most accurate diagnosis and treatment results can be achieved when personal opinions are supported by the objective esthetic values accepted in the literature.
4. It is thought that more detailed and comprehensive results can be obtained if a two-stage evaluation is conducted by taking photographs of smiling faces.

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## CONFLICTS OF INTEREST STATEMENT

The authors have no conflict of interests.

## ÖZ

**Amaç:** *Bu çalışmanın amacı bazı ölçülebilir dentolabial kriterlerin literatürde kabul edilen değerleri ile hekimlerin subjektif estetik görüşleri arasındaki uyumu değerlendirmektir.* **Gereç ve Yöntemler:** *Protetik Diş Tedavisi alanında dört uzman ve dört araştırma görevlisi diş hekimi çalışmada öznel değerlendirici olarak seçildi. 200 gönüllü katılımcıdan sadece ağız bölgesi görünecek şekilde alınan gülümseme fotoğrafları incelendi. Kesici eğimi ve alt dudak paralelliği, kesici eğimi ve alt dudak temas ilişkisi, gülme hattı, bukkal koridor ve interinsizal çizgi ve orta hat değişkenlerinin objektif ölçüm sonuçları ve değerlendiricilerin subjektif değerlendirmeleri*

Cochran Q testi ile karşılaştırıldı. **Bulgular:** Estetik algı subjektiftir. Kesici eğimi ve alt dudak paralelliği, gülme hattı ve bukkal koridor değişkenlerinde objektif ölçümler ile subjektif görüşler arasında anlamlı bir ilişki bulundu. Erkek ve kadın bireyler arasında, benzer şekilde uzmanlar ve araştırma görevlileri arasında istatistiksel olarak anlamlı bir fark bulunmadı. **Sonuçlar:** Estetik olarak objektif bulgular ile öznel görüşler arasında fikir birliği yoktur. **Anahtar Kelimeler:** Dentolabial analizler, estetik, subjektif görüşler, protetik tedavi.

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