



Evaluation Of Knowledge, Attitude, And Clinical Practices Regarding Extraoral Soft Tissue Facial Features Among Dental Professionals

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Abstract

Background:

To evaluate the knowledge, attitudes, and clinical utilization of extraoral soft-tissue facial esthetics by orthodontists and dental professionals.

Materials and Methods:

A cross-sectional validated questionnaire-based survey was conducted among 135 dental professionals (45 orthodontists, 45 other dental specialists, and 45 general dentists) to assess awareness and clinical utilization of extraoral facial parameters. Data were analyzed using SPSS version 26.0, and intragroup analysis was performed using descriptive statistics, along with a one-sample Z test for proportions to evaluate agreement within each group. Intergroup comparisons were performed using the chi-square test ($P < .05$).

Results:

Intragroup analysis demonstrated that orthodontists showed significant agreement in their KAP responses for facial convexity angle, facial concavity angle and lip length assessment, whereas facial proportions and mentolabial angle were not significant. Other dental specialists and general dentists showed less consistent responses in the evaluation and clinical application of extraoral facial esthetic parameters. Intergroup comparisons revealed significant differences in facial proportions, nasolabial angle, mentolabial angle, facial convexity and facial concavity angles ($P < .05$).

Conclusion:

Other dental specialists and general dentists mainly recognized basic esthetic features; however, their clinical application of structured facial parameters was less consistent. Orthodontists demonstrated greater knowledge and more consistent clinical integration of extraoral facial parameters, reflecting specialty-specific training and indicating a growing shift towards a patient-centered, soft-tissue-focused approach. This highlights the need for standardized protocols for extraoral facial evaluation during dental training

Keywords: Dental professionals; Extraoral facial esthetics; Knowledge–attitude– practice survey; Orthodontic diagnosis; Patient-centered esthetics; Soft-tissue evaluation

Introduction

Facial esthetics is a crucial component of orthodontic diagnosis and treatment planning, significantly influencing patient satisfaction and treatment outcomes.[1,2,3,4,5] Although

intraoral esthetic features such as buccal corridor space, lip line, incisor display, gingival exposure and recession, smile arc, occlusal cant, tooth morphology, arch form, age-related changes, and tongue characteristics have been widely studied, extraoral soft-tissue parameters also play a vital role in the perception of facial attractiveness.[5,6,7,8]

Previous investigations have emphasized the importance of extraoral soft-tissue assessment in orthodontic diagnosis. Yogosawa demonstrated that pretreatment facial profile parameters, particularly lip position and overall profile, are routinely used by orthodontists to predict post-treatment facial changes, establishing facial analysis as an integral diagnostic component rather than merely an outcome measure.[9] Bergman further introduced a structured cephalometric soft-tissue analysis incorporating extraoral landmarks such as the chin, lips, facial convexity, and facial proportions into routine treatment planning.[10] Alhammadi reported that clinicians place greater emphasis on facial profile and soft-tissue harmony than on dental alignment alone.[11] Kokich et al. have shown that dental professionals evaluate facial esthetics differently from laypersons.[12]

Apart from orthodontic literature, other specialties have also emphasized considerations of soft tissues. Mack et al. establish goals of treatment that satisfy patient desires and provide the most esthetic restorations, evaluation of the face must accompany intraoral examination.[6] Collectively, facial proportion, integumental form, dentofacial relationships at resting lip position and dentolabial relationships while smiling establish a visual guide that in conjunction with occlusal evaluation form the basis for designing dental restorations of optimal functional and esthetic value. Cassetta et al. further demonstrated that evaluating the patient's esthetics requires a combined analysis of face and smile, and it should not be limited to the evaluation of the individual components.[13]

Despite the growing emphasis on facial esthetic evaluation, discrepancies in clinical practice persist due to the lack of standardized extraoral assessment protocols. Previous studies have mainly focused on esthetic perception among orthodontists, general dentists, and laypersons, with limited evidence comparing the knowledge, attitudes, and clinical

practices between dental professionals and orthodontists toward extraoral facial analysis.[13,14,15] As orthodontists, other dental specialists, and general dentists differ in their clinical training and treatment objectives, evaluating these groups may provide insights into variations in the understanding and clinical application of extraoral facial esthetic parameters in clinical practice.

Accordingly, this questionnaire-based study aimed to evaluate the knowledge, perceptions, and clinical practices of dental professionals regarding extraoral soft-tissue facial esthetics. Specifically, the study assessed awareness of key facial esthetic parameters, examined the perceived importance of extraoral evaluation in orthodontic diagnosis and treatment planning, and evaluated current clinical practices and assessment methods used by dental professionals. Additionally, the study aimed to identify gaps between theoretical knowledge and clinical implementation, with the goal of supporting the development of standardized protocols for comprehensive extraoral facial esthetic evaluation and improving patient-centered orthodontic care as well as improving dental education methods.

Materials And Methods

Study Design And Setting

This study was designed as an observational, cross-sectional, questionnaire-based survey conducted to evaluate the knowledge, attitudes, and clinical practices regarding extraoral soft-tissue facial features among dental professionals. The study was carried out over a period of three months, from September 2025 to November 2025, using an electronic survey platform that enabled participants to complete the questionnaire remotely.

Study Population

The study population comprised dental professionals including orthodontists, other dental specialists and general dentists with clinical experience ranging from 0 to 16 years and currently engaged in clinical practice or academics.

Inclusion criteria includes dental professionals currently practicing as orthodontists, other dental specialists and general dentists and who voluntarily agreed to participate and provided informed consent.

Exclusion criteria includes incomplete questionnaire responses, Undergraduate dental students and dental professionals practicing outside India.

Sample Size Calculation

The sample size was calculated using a significance level (α) of 0.05 and a statistical power of 80% to detect a difference in group proportions of 0.24. Accordingly, a total of 135 dental professionals were recruited for the study, comprising 45 orthodontists (33.3%), 45 other dental specialists (33.3%), and 45 general dentists (33.3%). Equal representation of the three professional groups was maintained to facilitate intergroup comparisons.

Study Instrument

A structured, self-administered questionnaire was developed to assess the knowledge, attitudes, and clinical practices of dental professionals regarding extraoral soft-tissue facial parameters. The questionnaire was formulated based on established textbooks, Peer-reviewed literature and current clinical guidelines to ensure its scientific validity and relevance. The questionnaire consisted of 28 closed-ended questions organized into three sections: knowledge (Questions 1–14), attitude (Questions 15–22), and practice (Questions 23–28). The knowledge section comprised multiple-choice questions, whereas the attitude and practice sections used Likert-scale responses to evaluate perceptions and clinical practices.

Content validity of the questionnaire was evaluated by a panel of subject experts in orthodontics and related dental specialties using a four-point relevance scale. The average scale-level content validity index (S-CVI/Ave) was 0.78, indicating acceptable content validity. A pilot test involving 10 dental professionals was conducted to assess the clarity and feasibility of the questionnaire. Pilot study participants were excluded from the final study. Based on the feedback obtained, the question related to nasal shape assessment and the question evaluating the importance of facial esthetic factors were rephrased to improve clarity, comprehensibility, reduce subjective interpretation, and better align with the study objectives before final administration of the questionnaire.

Data Collection Procedure

The questionnaire was distributed electronically through an online survey platform (Google Forms®, Google LLC, Mountain View, CA, USA) between September 2025 and November 2025. Responses were collected anonymously to maintain confidentiality, minimize response bias and encourage voluntary participation.

Data obtained from the completed questionnaires were compiled, coded, and analyzed using IBM SPSS Statistics for Windows version 26.0 (IBM Corp., Armonk, NY, USA).

Statistical Analysis

Intragroup analyses were performed using descriptive statistics, including frequencies and percentages along with a one-sample Z test for proportions to evaluate agreement within each group. Intergroup comparisons among orthodontists, other dental specialists, and general dentists were performed using the chi-square (χ^2) test. The level of statistical significance was set at $P < .05$.

Results

Participant Characteristics

A total of 135 dental professionals participated in the study, comprising 45 orthodontists (33.3%), 45 other dental specialists (33.3%), and 45 general dentists (33.3%). The majority of participants were clinicians (60%), followed by those involved in both academic and clinical work (30%), while 10% were academicians.

Among orthodontists, significant agreement was observed for parameters such as malar prominence, nasal morphology, inter-nare distance, facial symmetry, nasolabial angle awareness, facial convexity angle, facial concavity angle, and standardized extraoral photography ($P < .05$), whereas facial proportions and mentolabial angle evaluation were not significant ($P > .05$). In the practice domain, most orthodontists reported routine use of profile photography, comparison of pre-and post-treatment photographs, and patient counseling regarding facial esthetics ($P < .05$) (Table 1).

Among other dental specialists, in knowledge domain parameters such as facial proportions, mentolabial angle, nasolabial angle awareness, and facial convexity and concavity angles ($P > .05$) were not significant, whereas parameters such as lip length

assessment, malar prominence, nasal morphology, muscle tonicity, facial symmetry, and inter-nare distance ($P < .05$) were significant. In the practice domain, no significant agreement of extraoral facial analysis was observed ($P > .05$) (Table 2).

Among general dentists, in knowledge domain parameters such as mentolabial angle, facial convexity and concavity angle evaluation ($P > .05$) were not significant, whereas significant agreement was observed for nasolabial angle awareness, facial proportions, malar prominence, nasal morphology, muscle tonicity, facial symmetry, lip length assessment, and inter-nare distance ($P < .05$). In the practice section, incorporation of structured extraoral facial analysis were not significant ($P > .05$) (Table 3).

Significant intergroup differences were observed in facial proportions ($P < .001$), mentolabial angle ($P = .011$), nasolabial angle awareness ($P = .012$), facial concavity angle ($P = .012$) and facial convexity angle ($P = .037$). No statistically significant differences were observed for lip length, malar prominence, nasal morphology, muscle tonicity, or inter-nare distance ($P > .05$) (Table 4).

Significant differences were identified for chin prominence importance ($P = .014$), lip height and thickness evaluation ($P = .001$), and measuring facial proportions ($P = .045$). No statistically significant differences were observed for standardized extraoral photography or importance of facial symmetry ($P > .05$) (Table 5).

Significant intergroup differences were observed for use of manual/digital tools ($P = .014$), routine profile photography ($P = .010$), patient counseling on facial esthetics ($P = .018$), and lip height and thickness evaluation ($P < .001$). No statistically significant differences were found for pre- and post-treatment photographic comparison or diagnostic inclusion of extraoral analysis ($P > .05$) (Table 6).

Discussion

Facial esthetics represents the harmonious relationship among dental, skeletal, and soft-tissue structures and plays a critical role in orthodontic diagnosis, treatment planning and overall treatment success.[1,2,3,4,5]

It strongly influences facial appearance, patient satisfaction and treatment outcomes.[5,6] Although achieving functional occlusion remains fundamental, optimal treatment outcomes also depend

on achieving overall facial harmony and balance.[1,4,5]

Traditionally, esthetic evaluation has focused primarily on intraoral parameters such as smile arc, buccal corridor, incisor display, and gingival exposure. However, extraoral soft-tissue features—including facial proportions, profile convexity and concavity, chin prominence, lip dimensions, malar prominence, nasal morphology, and facial symmetry—are equally important in determining facial harmony and how intraoral corrections are perceived externally.[1,3,5,8,9,10] Despite this, limited evidence exists regarding how dental professionals evaluate and integrate extraoral analysis into routine clinical practice.[11,12,13,14,15]

Thus, this study evaluated and compared the knowledge, attitudes, and clinical practices of dental professionals regarding extraoral facial esthetics. Significant intergroup variations were observed, with orthodontists demonstrating a more comprehensive and analytical understanding of facial proportions and soft-tissue parameters than other dental specialists and general dentists. This likely reflects specialty-specific training, in which orthodontic education emphasizes facial analysis as a core diagnostic component.[4,5,6,7]

Among orthodontists, high agreement was observed for fundamental esthetic parameters such as malar prominence, nasal morphology, inter-nare distance, facial symmetry, and standardized extraoral photography, while moderate variation persisted for parameters such as facial proportions and mentolabial angle evaluation. However, parameters such as nasolabial angle, facial convexity and concavity angle evaluation and lip length assessment demonstrated statistically significant agreement. Despite this variability, orthodontists demonstrated a more structured and clinically oriented understanding of facial analysis; however, the assessment of certain parameters may still depend on individual clinical preferences rather than uniform application. In contrast, basic esthetic features such as lip length, malar prominence, nasal morphology, and muscle tonicity showed no significant intergroup differences, indicating a shared baseline understanding across dental professionals.

Among other dental specialists, greater variability was observed in analytical aspects such as

facial proportions, profile-related angles, and lip assessment, whereas agreement remained relatively higher for general esthetic features including malar prominence, nasal morphology, muscle tonicity, and facial symmetry. This suggests that although specialists recognize fundamental esthetic concepts, the application of structured and quantitative facial analysis remains inconsistent. This variability was more pronounced among general dentists, who demonstrated the greatest inconsistency in analytical parameters. Although agreement for basic esthetic features remained comparable, the clinical application of structured extraoral facial analysis was less consistent, indicating a gap between theoretical knowledge and its practical implementation.

A similar pattern emerged in the attitude domain. Orthodontists expressed stronger agreement regarding the importance of chin prominence, lip height and thickness, and routine measurement of facial proportions. Nevertheless, attitudes toward facial symmetry and standardized extraoral photography were comparable among all groups, reflecting widespread professional recognition of these core esthetic principles.

Clinical practice patterns further reinforced these findings. Orthodontists demonstrated greater consistency in applying extraoral esthetic evaluation, including routine profile photography, use of manual or digital assessment tools, regular evaluation of lip dimensions, and patient counseling on facial esthetics. However, practices such as pre- and post-treatment photographic comparison and inclusion of extraoral analysis in diagnosis were similarly reported across all groups, indicating that basic documentation procedures have become standard in contemporary dental practice.

These findings are consistent with previous studies demonstrating specialty-dependent differences in facial esthetic perception. Cassetta et al. reported that orthodontists detected smaller facial profile deviations and evaluated macro-esthetic changes more critically than dental students and patients, highlighting enhanced sensitivity to extraoral facial features.[13] Similarly, Reddy et al. observed that orthodontists assigned stricter scores to altered facial profiles compared with general dentists and laypersons, reflecting greater analytical assessment of extraoral structures.[14] Bühling et al. further demonstrated

that orthodontists recognized facial deviations at significantly smaller magnitudes than general dentists, confirming that orthodontic training facilitates earlier detection of facial disharmony.[15] Thus, these studies support the present findings and reinforce the influence of orthodontic education on structured facial analysis and esthetic judgment.

The findings of this study highlight the need to enhance awareness and clinical training related to extraoral facial esthetic assessment among non-orthodontic dental professionals. Incorporating structured facial analysis protocols and interdisciplinary education may improve diagnostic consistency, treatment planning and overall treatment outcomes. As modern orthodontic practice increasingly emphasizes facial esthetics, standardized evaluation methods may help ensure a comprehensive and patient-centered approach to diagnosis and treatment planning.[4,5,6,7]

Overall, while orthodontists continue to demonstrate greater expertise in structured facial evaluation, other dental practitioners are also increasingly recognizing the value of extraoral esthetics in comprehensive care, highlighting the need for standardized facial assessment to support consistent diagnosis and interdisciplinary communication.

Thus, the sample size of 135 participants (45 participants per group) may have limited the sensitivity of the analysis to detect minor variations in clinical practices. Furthermore, this cross-sectional, self-reported survey captured responses at a single point in time and may have been influenced by response bias. Therefore, the findings indicate associations rather than causal relationships.

Conclusion

This study identified differences in the knowledge, attitudes, and clinical practices of dental professionals regarding extraoral facial esthetics. Orthodontists demonstrated greater knowledge, more positive attitudes, and more consistent integration of structured facial analysis than other dental specialists and general dentists.

These findings may reflect specialty-specific training and knowledge–practice gaps, as orthodontists assessed extraoral facial features more consistently than other dental professionals. Nevertheless, all groups acknowledged the importance of extraoral

evaluation, indicating a growing shift towards a patient-centered, soft-tissue-focused approach in contemporary dental practice.

These findings highlight the need for standardized protocols for extraoral facial evaluation to improve diagnostic accuracy, enhance interdisciplinary communication, and support comprehensive treatment planning that promotes facial balance, function, and esthetics.

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SECTION 1: KNOWLEDGE

1. Which facial proportions are commonly analyzed in extraoral Facial assessments?
 - ☐ Facial thirds
 - ☐ Facial fifths
 - ☐ Golden ratio
 - ☐ None of above
 - ☐ All of above
 - ☐ Both A & B
2. What is the ideal nasolabial angle range in an aesthetically balanced profile?
 - ☐ 70°–80°
 - ☐ 90°–110°
 - ☐ 130°–150°
 - ☐ None of above
3. Mentolabial angle helps to evaluate?
 - ☐ Upper lip protrusion
 - ☐ Chin prominence
 - ☐ Lower lip protrusion
 - ☐ None of above
4. What does an increased facial convexity angle (Ga–Sn–Pg) indicate?
 - ☐ Protrusive profile
 - ☐ Retrusive profile
 - ☐ Straight profile
 - ☐ None of above
5. What does an increased facial concavity angle (Ga–Sn–Pg) indicate?
 - ☐ Protrusive profile
 - ☐ Retrusive profile
 - ☐ Straight profile
 - ☐ None of above
6. Which soft tissue landmarks are essential for extraoing facial analysis? (Profile view) (Select all that apply)
 - ☐ Anterior nasal spine
 - ☐ Pogonion
 - ☐ Nasion
 - ☐ Orbitale
 - ☐ Gnathion
 - ☐ Menton
7. Lip Length of either lip is best assessed by measuring which feature?
 - ☐ Subnasale to Menton
 - ☐ Subnasale to Stomion distance (upper lip length)
 - ☐ Stomion to Menton distance (lower lip length)
 - ☐ both B & C
8. How does malar prominence contribute to facial feature?
 - ☐ It affects cheek contour and midface harmony
 - ☐ It is important only for smiling dynamics
 - ☐ It plays no role in esthetics
 - ☐ None of above
9. Which factors influence jawline the most?
 - ☐ Mandibular angle
 - ☐ Chin prominence
 - ☐ Soft tissue laxity and muscle tone
 - ☐ All of the above
10. Which type of nasal shape is considered most balanced in extraoral analysis?
 - ☐ Straight (Greek nose)
 - ☐ Concave (Saddle nose)
 - ☐ Convex (Roman nose)
 - ☐ None of above
11. What is the role of muscle tonicity in extraoral facial esthetics?
 - ☐ It affects lip competency and jawline sharpness
 - ☐ It has no effect on extraoral esthetics
 - ☐ It is only important for facial expressions
 - ☐ None of above
12. What is the normal range of inter-Nare distance (distance between nostrils)?
 - ☐ Equal to inner canthal distance
 - ☐ Equal to mouth widths
 - ☐ Equal to philtrum length
 - ☐ None of above
13. What is the normal range of inter-Pupillary distance (distance between pupils)?
 - ☐ Equal to inter canine distance
 - ☐ Equal to inter commissural distance
 - ☐ Equal to width of incisors
 - ☐ Equal to Bizygomatic width
14. How does the chin–throat angle contribute to the evaluation of facial esthetics?
 - ☐ It determines the vertical height of the maxilla
 - ☐ It influences the perception of neck and lower facial harmony
 - ☐ It has no relevance in facial profile assessment
 - ☐ It affects the mandible position
 - ☐ Both B & D
 - ☐ All of above

SECTION 2: ATTITUDE

1. Do you think standardized extraoral photography should be mandatory for facial analysis?
☐ Yes, always
☐ Only for complex cases
☐ No
☐ Not necessary
2. In your opinion, which factor is the most important in facial esthetics?
☐ Profile harmony
☐ Facial symmetry
☐ Lip-to-chin balance
☐ Skin texture and tone
3. Do you believe chin prominence affects overall facial esthetics?
☐ Yes, significantly
☐ Yes but only slightly
☐ No impact
4. In your opinion, which of the following factors are most critical in facial esthetics? (Select all that apply)
☐ Profile harmony
☐ Facial symmetry
☐ Lip-to-chin balance
☐ Skin texture and tone
☐ Malar prominence
☐ Nasal shape and contour
☐ Muscle tonicity
5. Do you believe that measuring lip height and thickness is essential in treatment planning?
☐ Strongly Agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly Disagree
6. Do you believe that measuring facial proportions is important in treatment planning?
☐ Strongly Agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly Disagree
7. Do you find it important to measure chin prominence when formulating a treatment strategy?
☐ Strongly Agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly Disagree
8. Do you believe that evaluating facial symmetry is important in treatment planning?
☐ Strongly Agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly Disagree

SECTION 3: PRACTICE

1. Which tools do you use for extraoral assessment?
 - ☐ Digital software (e.g., ImageJ, Dolphin)
 - ☐ Manual calipers and rulers
 - ☐ Visual observation only
2. Do you take profile photographs before treatment? *
 - ☐ Yes, for all cases
 - ☐ Only for selected cases
 - ☐ No, not required
3. Do you compare pre-treatment and post-treatment extraoral photographs for changes in facial esthetics?
 - ☐ Yes, always
 - ☐ Only in major correction cases
 - ☐ No
4. Do you routinely inform or counsel patients regarding their facial proportions and esthetic balance during consultation?
 - ☐ Yes, consistently
 - ☐ Only upon patient inquiry
 - ☐ No, not typically
5. How frequently do you clinically evaluate lip thickness and vertical lip height as part of your diagnostic protocol?
 - ☐ Always
 - ☐ Occasionally
 - ☐ Rarely
 - ☐ Never
6. Do you incorporate extraoral facial analysis into your diagnostic workflow to inform treatment decisions?
 - ☐ Always
 - ☐ Occasionally
 - ☐ Rarely
 - ☐ Never

Table 1 – Intragroup Distribution Among Orthodontists

Section	Parameter	Dominant Response n (%) (n = 45)	p-value
Knowledge	Facial proportions	21 (46.7)	.72
	Mentolabial angle evaluation	30 (66.7)	.067
	Nasolabial angle awareness	35 (77.8)	.003
	Facial convexity angle	32 (71.1)	.028
	Facial concavity angle	33 (73.3)	.011
	Lip length assessment	35 (77.8)	.003
	Malar prominence role	42 (93.3)	<.001
	Nasal morphology	36 (80.0)	.001
	Muscle tonicity	35 (77.8)	.003
	Inter-nare distance	39 (86.7)	<.001
Attitude	Importance of chin prominence	36 (80.0)	.001
	Lip height and thickness evaluation	39 (86.7)	<.001
	Measuring facial proportions	33 (73.3)	.011
	Facial symmetry importance	38 (84.4)	<.001
	Standardized extraoral photography	39 (86.7)	<.001
Practice	Use of manual/digital tools	32 (71.1)	.028
	Routine profile photography	35 (77.8)	.003
	Pre- and post-treatment comparison	36 (80.0)	.001
	Extraoral analysis in diagnosis	33 (73.3)	.011
	Patient counseling on facial esthetics	38 (84.4)	<.001

Table 2 – Intragroup Distribution Among other Specialists

Section	Parameter	Dominant Response n (%) (n=45)	P-value
Knowledge	Facial proportions	15 (33.3)	.067
	Mentolabial angle evaluation	23 (51.1)	1.000
	Nasolabial angle awareness	21 (46.7)	.720
	Facial convexity angle	23 (51.1)	1.000
	Facial concavity angle	21 (46.7)	.720
	Lip length assessment	35 (77.8)	.003
	Malar prominence role	41 (91.1)	<.001
	Nasal morphology	35 (77.8)	.003
	Muscle tonicity	33 (73.3)	.011
	Inter-nare distance	38 (84.4)	<.001
Attitude	Importance of chin prominence	27 (60.0)	.273
	Lip height and thickness evaluation	30 (66.7)	.067
	Measuring facial proportions	29 (64.4)	.180
	Facial symmetry importance	35 (77.8)	.003
	Standardized extraoral photography	33 (73.3)	.011
Practice	Use of manual/digital tools	24 (53.3)	.720
	Routine profile photography	27 (60.0)	.273
	Pre- and post-treatment comparison	30 (66.7)	.067
	Extraoral analysis in diagnosis	26 (57.8)	.540
	Patient counseling on facial esthetics	29 (64.4)	.180

Table 3 – Intragroup Distribution Among General Dentists

Section	Parameter	Dominant Response n (%) (n=45)	P-value
Knowledge	Facial proportions	9 (20.0)	.001
	Mentolabial angle evaluation	18 (40.0)	.273
	Nasolabial angle awareness	12 (26.7)	.028
	Facial convexity angle	18 (40.0)	.273
	Facial concavity angle	14 (31.1)	.067
	Lip length assessment	33 (73.3)	.011
	Malar prominence role	39 (86.7)	<.001
	Nasal morphology	35 (77.8)	.003
	Muscle tonicity	32 (71.1)	.028
	Inter-nare distance	36 (80.0)	.001
Attitude	Importance of chin prominence	24 (53.3)	.720
	Lip height and thickness evaluation	26 (57.8)	.540
	Measuring facial proportions	23 (51.1)	1.000
	Facial symmetry importance	32 (71.1)	.028
	Standardized extraoral photography	30 (66.7)	.067
Practice	Use of manual/digital tools	20 (44.4)	.540
	Routine profile photography	23 (51.1)	1.000
	Pre- and post-treatment comparison	27 (60.0)	.273
	Extraoral analysis in diagnosis	21 (46.7)	.720
	Patient counseling on facial esthetics	24 (53.3)	.720