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Analysis of a Brazilian cross-cultural adaptation of the FACE-Q SFAOS in facial harmonization in dentistry

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Abstract: The FACE-Q SFAOS is an instrument developed for esthetic facial procedures and has been validated in patients undergoing rhinoplasty. It consists of ten items that assess the current perception of facial appearance regarding symmetry, harmony, proportion, freshness or vitality, and self-perception of appearance; these items are perhaps important to guide demands in orofacial harmonization (OFH). We aimed to validate the FACE-Q SFAOS scale among professionals working with OFH and verify its acceptance for use in clinical practice. Altogether, 25 OFH specialists were included to evaluate the FACE-Q SFAOS scale and the new technology acceptability model (TAM). Internal validity was measured using Cronbach's α coefficient. Both scales were associated with clinical experience and perceived usefulness using Spearman's correlation and Fisher's exact or chi-square tests (SPSS 20.0, $p < 0.05$). The FACE-Q SFAOS ($\alpha = 0.927$) and TAM ($\alpha = 0.941$) scales demonstrated good internal validity, and most professionals demonstrated good acceptance (TAM >70 = 64%). The mean FACE-Q SFAOS and TAM scores were 64.00±17.03 and 74.60±20.66, respectively. Practitioners with more than two years of experience ($p=0.032$) who believed the scale was useful for lip filler evaluation ($p = 0.017$) demonstrated greater acceptance. The number of indications on the scale was directly correlated with higher levels of acceptance ($p = 0.002$, $r = 0.594$). Thus, the FACE-Q SFAOS scale has good reproducibility and acceptance among OFH specialists; however, acceptability was shown to be dependent on perceived usability.

Keywords: Esthetics; Dentistry; Surveys and Questionnaires; Validation Study.

Introduction

The relevant role that facial esthetics play in self-esteem and the introduction of individuals' social lives are unquestionable. Since 2000, there has been a 144% increase in minimally invasive esthetic procedures, stimulating the immersion of the dental profession in performing this type of procedure.[1]

In this context, dentistry has advanced beyond the face esthetic process, performing facial analysis, defining proportions, volume, appearance, symmetry, and malformations through imaging examinations and

photographs.[2] With this immersion, the Federal Council of Dentistry by resolution 198/2019 recognized Orofacial Harmonization (OFH) as a dental specialty regulating the esthetic procedures that dental surgeons can perform on the face.[3]

Although dentists have made significant progress in dental-facial harmonization, methods for evaluating esthetic demands are still largely based on patients' self-perception and the clinical experience of the professional, who use numerical tools and golden ratios to achieve a harmonious face.[4] Some instruments were used to measure satisfaction with body image[5] and how this impacts social relationships.[5,6] These instruments can be used not only in research but also to measure important parameters to guide treatment. Recently, an instrument to analyze self-perception of facial esthetics was validated in a sample of patients requiring rhinoplasty at Brazilian Portuguese (FACE-Q Satisfaction with Facial Appearance Overall Scale (FACE-Q SFAOS).[7] The initial purpose of this scale is to measure the self-perception of facial esthetics in otolaryngology and this may be important to guide demands in OFH. However, it is indispensable to evaluate whether cross-cultural adaptation is adequate for professional classes such as dentistry because these instruments must be equal between the original and target language, time, and context to reduce barriers when making a direct comparison between the two professional classes.[8]

The FACE-Q SFAOS was developed by Klassen et al.[9] in 2010 and psychometrically evaluated by Pusic et al.[10] in 2013. It consists of ten items that assess the current perception of facial appearance regarding symmetry, harmony, proportion, freshness or vitality, appearance over time (such as rested facial appearance), appearance at the end of the day, appearance when waking up, appearance in the brightest light, and the image of yourself and someone else's profile.[7] However, because it is a highly subjective demand, it is sometimes difficult for patients or dentists to identify the most appropriate demands for each case. As the importance of self-perception of facial esthetics can be crucial in directing treatment, the use of appropriate tools for this measurement can support the direction of facial esthetic demands. Thus, this study aimed to validate the questionnaire for analyzing the self-perception of facial esthetics by FACE-Q SFAOS in a sample of professionals who work directly with facial esthetic demands.

Methodology

Study design, ethics, and access to a population study

This observational cross-sectional study, which involved the anonymous opinion of undergraduate dentistry students from a higher education center of reference in a specific region (Unichristus, Fortaleza, Brazil), followed the rules of Resolution 510/16. The project was approved by the university's ethics committee, following the Brazilian guidelines for research involving human beings, as established in Resolution 466/12 (protocol: 4.451.163).

An online questionnaire was administered using Google Forms. The survey was promoted among students of facial harmonization in dentistry and specialists in facial harmonization through Instagram@, Facebook@, and Whatsapp@.[11] As an inclusion criterion, students of dentistry were included only if they answered yes to the first item of the questionnaire after reading the informed consent: "Do you wish to participate in this study?" (Yes or No). We excluded professionals who did not fill out the questionnaires completely.

Sample size calculation

The sample size was calculated based on the study by Bujang et al.,[12] which described a practical method to estimate the sample in the questionnaire and construct validation studies. This sample size calculation method is based on the number of items in the questionnaire and the difference between poor and ideal internal validity. The FACE-Q SFAOS presents ten items, and as suggested by Bujang et al.,[12] we adopted a poor and ideal internal validity of 30% and 80%, respectively, estimating the necessity of evaluating 25 professionals to obtain a sample that rejects 80% power and 95% confidence as the alternative hypothesis of our study.

Research instruments

The questionnaire was designed with two blocks of questions: Block 1 contained the Brazilian version of FACE-Q SFAOS and the Brazilian version of the Technology Acceptance Model (TAM). Block 2 contained professional profiles and suggestions to indicate FACE-Q SFAOS.

The FACE-Q SFAOS is an instrument developed by Klassen et al.[9] and psychometrically evaluated by Pusic et al.[10] and recently validated in Brazilian Portuguese by Gama et al.[7] It consists of ten items that assess the current perception of facial appearance concerning symmetry, harmony, proportion, freshness or vitality, appearance over time (such as rested facial appearance), appearance at the end of the day, appearance when waking up, appearance in front of the brightest light, and the image of yourself and someone else's profile (side view or contour). The items have four response options on a 4-point ascending Likert-type scale (very dissatisfied, somewhat dissatisfied, somewhat satisfied, and very satisfied), which generate scores ranging from 10 to 40 and are summed to a total score ranging from 0 to 100 related to the level of satisfaction with one's facial image.

We accessed the FACE-Q SFAOS cross-culturally adapted by Gama et al.[7] The scale was applied to 20 patients. Patients were asked to explain each question in their own words and suggest changes in their formulation (adaptation of the question). The interviews were conducted face-to-face. All patients understood that the items on the scale were related to concerns and levels of satisfaction with their facial appearance, thus indicating the scale's face validity at this stage (analyzing whether the instrument measures what it proposes to measure, or whether the items offered no resistance) and content validity (defined as the degree to which each item is relevant in measuring the content of the target population). The final version was obtained when patients had no further doubts, and the multidisciplinary team reached a consensus and when the version was integrally used in this study.

This previously published cross-culturally adapted version in Brazilian Portuguese[7] was obtained from the original database of the Postgraduate Program in Translational Surgery of the Federal University of São Paulo.[13] No additional alterations were performed.

Moreover, considering that any new tool may present resistance to its implementation, and acceptance is crucial to its implementation,[14] we assess acceptance through the instrument using TAM. A technology acceptance questionnaire is a tool developed by Davis that allows the quantification of the degree of utility perceived by users of a particular application (Davis's TAM). This model consists of a questionnaire with four items and five answer options arranged in the form of a Likert-type scale, and the sum of the four answers multiplied by five to obtain the final score, which can range from 0 to 100.[15] Similar to the FACE-Q SFAOS, no additional alterations were performed.

Block 2 (data from student profile) was developed using a 4-step approach to select items.[16] First, a thematic review of questionnaires evaluating study profiles in *e*-learning was conducted to understand the important items to investigate this profile.[1,17-19] Second, a teaching expert designed a structured questionnaire based on previously described information. Third, three specialists evaluated the items, a doctor in health education, a doctor in biostatistics, and a specialist in facial harmonization. Fourth, minor item disposition corrections (objectification of responses) were made based on the three specialists' suggestions, and the questionnaires were launched. This process was conducted for seven days (one process per day) to minimize fatigue bias, and the meetings were held by video conference owing to enforcement of restrictions pertaining to the COVID-19 pandemic.

Statistical analysis

Data from the completed surveys were exported to a Microsoft Excel spreadsheet using the command "View responses in Sheets" of Google Forms®, and subsequently encoded and analyzed using the software Statistical Package for the Social Sciences (SPSS) version 20.0 for Windows ($p < 0.05$).

The FACE-Q SFAOS and TAM scores were converted to a linear scale from 0 to 100. The means and standard deviations were calculated, along with the overall Cronbach's alpha and the Cronbach's

alpha values excluding each item. The correlation between each item was analyzed using global scores of each scale (Spearman's rank correlation tests). Subsequently, each student's FACE-Q SFAOS and TAM scores were classified as dissatisfied/uncertain for scores from 0 to 70 and satisfied for scores from 70 to 100.[20] The chi-square test was used to associate the two categories: low/moderate (0–70) and high (70–100) for FACE-Q SFAOS and TAM with all other items in the questionnaire.

Results

Profile of professionals who evaluated the acceptability of the FACE-Q SFAOS scale for use in facial harmonization

Most of the professionals were female (n = 23, 92.0%), aged up to 35 years (n = 13, 52.0%), and attended private practice (n = 22, 88.0%). Among them, only 11 (44.0%) reported to have already specialized in facial harmonization, and most said they were in the process of specializing in facial harmonization (n = 15, 60.0%). Most professionals also specialized in orthodontics (n = 11, 44.0%) and performed between one and two facial harmonization procedures per week (n = 8, 32.0%) (Table 1).

Professional validation and acceptability of the FACE-Q SFAOS scale

The FACE-Q SFAOS scale of 25 dentists working with facial harmonization demonstrated excellent internal consistency (Cronbach's alpha = 0.927). All items showed good internal consistency, and the removal of outliers reduced the internal validity values of the questionnaire to less than 0.900. All items also correlated adequately with the total score of the FACE-Q SFAOS, with item 5 (How fresh does your face look?) being the item with the highest correlation, and item 6 (How rested does your face look?) with the lowest correlation. The item with the highest mean score among the professionals was item 2 (How balanced does your face look?) and the item with the lowest score was item 9 (How does your face look when you wake up?) (Table 2).

When the FACE-Q SFAOS scale was adjusted to 0-100%, the scale ranged from 37.50 to 92.50 points.

Table 1. Professional profile of dental surgeons that work with facial harmonization in dentistry and evaluate the FACE-Q SFAOS scale (n, %).

Variable	n (%)
Total	25
Sex	
Female	23 (92.0)
Male	2 (8.0)
Age	
Up to 35 years old	13 (52.0)
> 35 years old	12 (48.0)
Professional performance	
Private sector	22 (88.0)
Secondary care	2 (8.0)
Post-graduation teaching	4 (16.0)
Higher education teaching	2 (8.0)
Expert in facial harmonization	11 (44.0)
Expert time with facial harmonization	
Specialization in progess	15 (60.0)
Up to 2 years	7 (28.0)
> 2 years	3 (12.0)
Other specializations	
Orthodontics	11 (44.0)
Implant	6 (24.0)
Dentistry	6 (24.0)
Functional jaw orthopedics	5 (20.0)
Prothesis	2 (8.0)
DTM	2 (8.0)
CTBMF	2 (8.0)
Endodontics	1 (4.0)
Dental radiology	1 (4.0)
Periodontics	1 (4.0)
Odontogeriatry	1 (4.0)
Collective health	1 (4.0)
Weekly routine of facial harmonization procedures	
Less than one per week	5 (20.0)
1 or 2 procedures per week	8 (32.0)
3 to 6 procedures per week	6 (24.0)
7 or more procedures per week	6 (24.0)
TAM	
0 a 70%	8 (36.0)
> 70%	17 (64.0)

Most of the professionals showed 0-70% (n = 14, 66.0%) scores, and the mean score was 64.00 ± 17.03 (Table 2).

The acceptability scale for new technologies (TAM) used to assess the acceptability of professionals working with facial harmonization also demonstrated high internal validity (Cronbach's alpha = 0.941). All items showed good internal consistency, and the removal of outliers reduced the internal validity values of the questionnaire to less than 0.900. All items also correlated adequately with the total score of the TAM scale, with item 1 (I find it a useful tool to assess self-perception of facial esthetics) being the most strongly correlated, and item 3 (it helped me to better understand concepts related to facial esthetics) having the weakest correlation. The item that presented the highest mean score among professionals was item 2 (I believe that this tool can help identify and target the main facial

Table 2. Internal validity and acceptability of the FACE-Q SFAOS scale as an instrument to assess the demand for facial esthetics by dental surgeons working in facial harmonization.

Variable	Mean ± SD	Cronbach's α	Item correlation	Likert-like scale[d]				
			With the scale[c]	1	2	3	4	5
FACE-Q SFAOS (0-100%)	64.00 ± 17.03	0.927[a]						
1. How symmetrical does your face look?	2.80 ± 0.96	0.920[b]	p < 0.001 (r = 0.762)	2 (8.0)	8 (32.0)	8 (32.0)	7 (28.0)	-
2. How balanced does your face look?	2.92 ± 0.76	0.918[b]	p < 0.001 (r = 0.829)	0 (0.0)	8 (32.0)	11 (44.0)	6 (24.0)	-
3. How proportional does your face look?	2.80 ± 0.87	0.920[b]	p < 0.001 (r = 0.785)	2 (8.0)	6 (24.0)	12 (48.0)	5 (20.0)	-
4. How does your face look at the end of the day?	2.44 ± 0.87	0.919[b]	p < 0.001 (r = 0.773)	3 (12.0)	11 (44.0)	8 (32.0)	3 (12.0)	-
5. How fresh does your face look?	2.48 ± 1.05	0.911[b]	p < 0.001 (r = 0.910)	5 (20.0)	8 (32.0)	7 (28.0)	5 (20.0)	-
6. How rested does your face look?	2.32 ± 0.75	0.924[b]	p < 0.001 (r = 0.641)	2 (8.0)	15 (60.0)	6 (24.0)	2 (8.0)	-
7. How does your profile look (side view)?	2.48 ± 0.92	0.925[b]	p < 0.001 (r = 0.691)	3 (12.0)	11 (44.0)	7 (28.0)	4 (16.0)	-
8. How does your face look in photos?	2.48 ± 0.65	0.920[b]	p < 0.001 (r = 0.800)	1 (4.0)	12 (48.0)	11 (44.0)	1 (4.0)	-
9. How does your face look when you wake up?	2.24 ± 1.09	0.916[b]	p < 0.001 (r = 0.836)	8 (32.0)	7 (28.0)	6 (24.0)	4 (16.0)	-
10. How does your face look in bright (or strong) light?	2.64 ± 0.76	0.923[b]	p < 0.001 (r = 0.751)	0 (0.0)	13 (52.0)	8 (32.0)	4 (16.0)	-
TAM (0-100%)	74.60 ± 20.66	0.941[a]						
1. It seems to me a useful tool to evaluate the self-perception of facial esthetics?	3.76 ± 1.13	0.900[b]	p < 0.001 (r = 0.923)	2 (8.0)	1 (4.0)	4 (16.0)	12 (48.0)	6 (24.0)
2. I believe that the use of this tool can help in the identification and targeting of the main facial aesthetic problems in need of intervention?	3.76 ± 1.09	0.903[b]	p < 0.001 (r = 0.882)	2 (8.0)	1 (4.0)	3 (12.0)	14 (56.0)	5 (20.0)
3. Helped me to better understand the concepts related to facial esthetics?	3.56 ± 1.16	0.969[b]	p < 0.001 (r = 0.870)	3 (12.0)	0 (0.0)	6 (24.0)	12 (48.0)	4 (16.0)
4. I would use this tool in my routine care of patients with facial esthetic demands?	3.84 ± 1.11	0.914[b]	p < 0.001 (r = 0.908)	2 (8.0)	0 (0.0)	5 (20.0)	11 (44.0)	7 (28.0)

[a]Cronbach's α of the questionnaire; [b]Cronbach's α of the item if it has been removed from questionnaire; [c]Spearman's correlation of the item analyzed with the total score of the questionnaire (0-100%); [d]Absolute frequency and percentage of Likert scale item; Likert-like FACE-Q SFAOS items: 1) Very dissatisfied, 2) Somewhat dissatisfied, 3) Somewhat satisfied, 4) Very satisfied; Likert scale TAM items: 1) Strongly Disagree, 2) Disagree, 3) Indifferent, 4) Agree, 5) Strongly Agree.

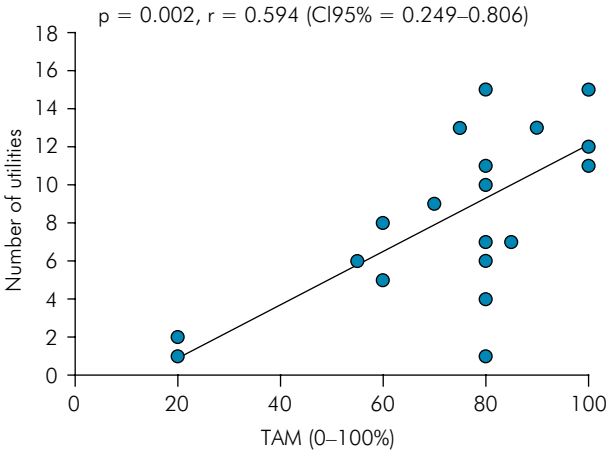
esthetics problems in need of intervention) and item 3 presented the lowest mean score.

When the TAM scale was adjusted to 0-100%, the scale ranged from 20.00 to 100.00. Most practitioners showed scores greater than 70% in the acceptability of the FACE-Q SFAOS scale for use in facial harmonization (n = 17, 64.0%), and the mean acceptability was 74.60 ± 20.66 points.

Utilities for FACE-Q SFAOS scale

All professionals pointed out that the scale was useful for at least one facial harmonization procedure. The mean number of procedures evaluated using the FACE-Q SFAOS scale was 8.6±4.4 (range: 1–15). There was a significant correlation between acceptability scores for the FACE-Q SFAOS scale and the number of procedures considered useful for evaluation by the scale (p = 0.002, r = 0.594) (Figure). Professionals with ongoing specialization in facial harmonization self-reported lower satisfaction with their facial esthetics (p = 0.032) (Table 3).

Regarding the usefulness of the FACE-Q SFAOS scale, most professionals considered it a useful tool in diagnosing and following patients with the need to improve facial contours (n = 22, 88.0%). A high frequency of usefulness was observed for orthognathic surgery and rhinoplasty (n = 19, 76.0%), lip fillers (n = 18, 72.0%), sagging treatment and jaw/jaw advancement (n = 16, 64.0%), jowl removal (n = 15, 60.0%), and botulinum toxin application (n = 14, 48.0%). Less than half of the professionals considered the scale useful for bichectomy, orthopedic facial treatment, blepharoplasty, facial slimming, labioplasty, treatment for spots and melasma, or treatments for acne scars (Table 4).



*Spearman's correlation coefficient

Figure 1. Correlation analysis between the number of clinical indications and the acceptability of facial esthetics using the FACE-Q SFAOS scale by dental surgeons working with facial harmonization.

There was a direct association between the acceptability of the FACE-Q SFAOS scale and its usefulness for lip filler evaluation (p = 0.017) and an inverse association between the FACE-Q SFAOS scale and its indication for labioplasty (p = 0.003) (Table 4).

Power of the sample size

Based on the Cronbach's alpha obtained in the FACE-Q SFAOS scale (internal consistency = 92.7%), the number of 25 OHF professionals showed a power of 99.7% to reject the null hypothesis of a poor Cronbach's alpha (30%), as suggested by Bujang et al.[13]

Discussion

Various scales and methods of facial assessment are used in esthetic medicine to observe facial aging marks, skin laxity, brow placement, forehead lines, melomental folds (marionette lines), and crow's feet. Moreover, the scales currently available allow intra-study comparisons and post-procedure outcome assessment[21-23]; In esthetic orthodontics, there is already a proprietary psychosocial impact on esthetic dentistry (PIDAQ) scale used to assess the patient's perspective on the impact related explicitly to orthodontics.[24] Other scales, such as the OHIP-14 (Oral Health Impact Profile Instrument)-14, are used to assess oral health-related quality of life.[25] However, facial esthetics still have the limitation of not having adequate and validated tools to assess esthetic satisfaction.

The FACE-Q SFAOS scale was created to evaluate esthetic needs in rhinoplasty procedures. It consists of 10 simple questions whose answers are arranged on a Likert-type scale of four ascending points, which generate scores ranging from 10 to 40 and are added to a total score ranging from 0 to 100 related to the level of satisfaction with one's facial image. This is a quickly applied scale that can help identify facial

Table 3. Professional profile of dental surgeons and its influence on the acceptability and self-perception of facial esthetics using the FACE-Q SFAOS scale.

Variable	TAM (0–100%)		p-value	FACE-Q SFAOS (0–100%)		p-value
	0 a 70%	> 70%		0 a 70%	> 70%	
Total	8 (36.0)	17 (64.0)	-	14 (66.0)	11 (44.0)	-
Sex						
Female	6 (75.0)	17 (100.0)	0.093	12 (85.7)	11 (100.0)	0.487
Male	2 (25.0)	0 (0.0)		2 (14.3)	0 (0.0)	
Age						
Up to 35 years old	5 (62.5)	8 (47.1)	0.673	6 (42.9)	7 (63.6)	0.428
> 35 years old	3 (37.5)	9 (52.9)		8 (57.1)	4 (36.4)	
Professional performance						
Private sector	6 (75.0)	16 (94.1)	0.231	11 (78.6)	11 (100.0)	0.230
Secondary care	2 (25.0)	0 (0.0)	0.093	1 (7.1)	1 (9.1)	1.000
Post-graduation teaching	3 (37.5)	1 (5.9)	0.081	4 (28.6)	0 (0.0)	0.105
Higher education teaching	1 (12.5)	1 (5.9)	1.000	1 (7.1)	1 (9.1)	1.000
Expert in facial harmonization	4 (50.0)	7 (41.2)	1.000	4 (28.6)	7 (63.6)	0.116
Expert time with facial harmonization						
Specialization in progess	4 (50.0)	11 (64.7)	0.389	11 (78.6)*	4 (36.4)	0.032
Up to 2 years	2 (25.0)	5 (29.4)		1 (7.1)	6 (54.5)*	
> 2 years	2 (25.0)	1 (5.9)		2 (14.3)	1 (9.1)	
Other specializations						
Orthodontics	6 (75.0)	5 (29.4)	0.081	5 (37.5)	6 (54.5)	0.435
Implant	1 (12.5)	5 (29.4)	0.624	4 (28.6)	2 (18.2)	0.661
Dentistry	0 (0.0)	6 (35.3)	0.129	2 (14.3)	4 (36.4)	0.350
Functional jaw orthopedics	2 (25.0)	3 (17.6)	1.000	2 (14.3)	3 (27.3)	0.623
Prothesis	0 (0.0)	2 (11.8)	1.000	2 (14.3)	0 (0.0)	0.487
DTM	2 (25.0)	0 (0.0)	0.093	2 (14.3)	0 (0.0)	0.487
CTBMF	2 (25.0)	0 (0.0)	0.093	2 (14.3)	0 (0.0)	0.487
Endodontics	1 (12.5)	0 (0.0)	0.320	1 (7.1)	0 (0.0)	1.000
Dental radiology	0 (0.0)	1 (5.9)	1.000	1 (7.1)	0 (0.0)	1.000
Periodontics	0 (0.0)	1 (5.9)	1.000	1 (7.1)	0 (0.0)	1.000
Odontogeriatry	0 (0.0)	1 (5.9)	1.000	1 (7.1)	0 (0.0)	1.000
Collective health	1 (12.5)	0 (0.0)	0.320	0 (0.0)	1 (9.1)	0.440
Weekly routine of facial harmonization procedures						
Less than one per week	1 (12.5)	4 (23.5)	0.576	4 (28.6)	1 (9.1)	0.450
1 or 2 procedures per week	3 (37.5)	5 (29.4)		5 (35.7)	3 (27.3)	
3 to 6 procedures per week	1 (12.5)	5 (29.4)		3 (21.4)	3 (27.3)	
7 or more procedures per week	3 (37.5)	3 (17.6)		2 (14.3)	4 (36.4)	
TAM						
0 a 70%	-	-	-	5 (35.7)	3 (27.3)	1.000
> 70%	-	-		9 (64.3)	8 (72.7)	

*$p < 0.05$, Fisher's exact test or Pearson's chi-square test (n, %).

Table 4. Indications for use by dental surgeons and their influence on acceptability and self-perception of facial esthetics using the FACE-Q SFAOS scale.

Variable	Total	TAM (0–100%)		p-value	FACE-Q SFAOS (0–100%)		p-value
		0 a 70%	> 70%		0 a 70%	> 70%	
The FACE-Q SFAOS scale can be useful for diagnosis and follow-up of							
Improvement of facial contours	22 (88.0)	6 (75.0)	16 (94.1)	0.231	13 (92.9)	9 (81.8)	0.565
Orthognathic surgery	19 (76.0)	5 (62.5)	14 (82.4)	0.344	12 (85.7)	7 (63.6)	0.350
Rhinomodeling	19 (76.0)	6 (75.0)	13 (76.5)	1.000	12 (85.7)	7 (63.6)	0.350
Lip Filler	18 (72.0)	3 (37.5)	15 (88.2)*	0.017	9 (64.3)	9 (81.8)	0.407
Treatment for flaccidity	16 (64.0)	4 (50.0)	12 (70.6)	0.394	8 (57.1)	8 (72.7)	0.677
Mandible maxilla advancement	16 (64.0)	3 (37.5)	13 (76.5)	0.087	9 (64.3)	7 (63.6)	1.000
Jowl removal	15 (60.0)	3 (37.5)	12 (70.6)	0.194	8 (57.1)	7 (63.6)	1.000
Botulinum toxin application	14 (56.0)	2 (25.0)	12 (70.6)	0.081	8 (57.1)	6 (54.5)	1.000
Bichectomy	12 (48.0)	3 (37.5)	9 (52.9)	0.673	8 (57.1)	4 (36.4)	0.428
Orthopedic facial treatment	12 (48.0)	2 (25.0)	10 (58.8)	0.202	8 (57.1)	4 (36.4)	0.428
Blepharoplasty	12 (48.0)	2 (25.0)	10 (58.8)	0.202	9 (64.3)	3 (27.3)	0.111
Facial slimming	12 (48.0)	2 (25.0)	10 (58.8)	0.202	6 (42.9)	6 (54.5)	0.695
Labioplasty	11 (44.0)	2 (25.0)	9 (52.9)	0.234	10 (71.4)*	1 (9.1)	0.004
Treatment for spots and melasma	9 (36.0)	1 (12.5)	8 (47.1)	0.182	5 (35.7)	4 (36.4)	1.000
Treatments for acne scars	7 (28.0)	1 (12.5)	6 (35.3)	0.362	4 (28.6)	3 (27.3)	1.000

*$p < 0.05$, Fisher's exact test or Pearson's chi-square test (n, %).

esthetic demands, aiming at professional analysis to support clinical decision-making.[9,10] Recently this scale was cross-culturally adapted to Brazilian Portuguese by Gama et al.[7] in patients undergoing rhinoplasty (Table 5), and we analyze the FACE-Q SFAOS without adaptations.[13] This scale demonstrated a high level of internal consistency, suggesting that the scale can be applied by professionals working with facial harmonization.[12] Thus, no biases of questionnaires were inputted when this scale was applied for dentistry, suggesting that cross-cultural adaptation, but not cross-professional, plays a major role in adjusting the FACE-Q SFAOS.[8]

Internal consistency is commonly measured by Cronbach's alpha, which is an important index that measures the level of understanding of an assessment instrument. Suitable values of this coefficient are directly associated with good reliability, responsiveness, and interpretability, contributing to health professionals' theoretical knowledge and a critical sense of the instrument used.[26] Moreover, all items contributed equally to the construction of the total score, so item suppression is unnecessary, which is advantageous because it is possible to maintain the questionnaire in its complete form without the need for factor redistribution of its components, which increases reproducibility.[27] The high consistency contributed to a high-quality analysis of acceptance and a good acceptance of OFH in the use of FACE-Q SFAOS.

Two-thirds of the professionals evaluated showed higher than 70% acceptability, which may contribute to greater use of the questionnaire. Typically, the acceptance of an instrument is directly related to its ease of use. As this scale is simple and small, it facilitates its acceptance.[28] The more "uses" the FACE-Q SFAOS scale demonstrated, the greater was its acceptance as an instrument to assess the demand for facial harmonization procedures since the greater the perception of usability, the greater the perception

Table 5. Brazilian portuguese version of FACE-Q SFAOS scale.

Questões	Respostas			
	Muito insatisfeita	Pouco insatisfeita	Satisfeita	Muito satisfeita
a. Com o quanto seu rosto parece simétrico				
b. Com o quanto seu rosto parece equilibrado				
c. Com o quanto seu rosto parece proporcional				
e. Com o quanto seu rosto parece fresco				
f. Com o quanto seu rosto parece descansado				
g. Com a aparência do seu perfil (vista lateral)				
h. Com a aparência do seu rosto em fotos				
i. Com a aparência do seu rosto ao acordar				
j. Com a aparência do seu rosto sob luz intensa (ou forte)				

No alterations are performed in FACE-Q SFAOS scale obtained from Gama et al.[7]

of acceptability of a product.[29] Therefore, knowledge of a large number of procedures for which the scale can be important is indispensable for increasing its acceptability.

An important point is that training professionals had a lower rate of acceptability. Professionals who are in training are more judicious in their performance.[30,31] Side effects on OFH can occur especially in procedures that use fillers, Botox, and surgical techniques, due to the level of professional training arising from inexperience, incorrect technique, or inherent to the product itself.[32,33]

Another point to be highlighted is that lip esthetics were directly associated with better acceptance of the FACE-Q SFAOS scale. The harmonization of the smile with other soft tissues of the face, such as the lips, is crucial to achieving esthetic goals.[34] The lips play an essential role in the face's esthetic perception, which makes lip esthetic procedures some of the most sought-after.[35,36] Although many face areas receive attention for esthetic improvement, the lips are considered a key element of facial attractiveness because of their central position on the face.[37] Thus, considering that the acceptance of an instrument depends on its perceived usefulness and that the lips are critical for facial harmonization, this sample of professionals considers its use important for lip procedures.[28]

Despite not showing a significant association between the acceptability of other parameters with the scale (improvement of facial contours, orthognathic surgery, etc.), the purpose of the scale is to support the professional in decision making; the study focused its evaluation on professional validation. The sample size and power calculations were performed to overcome the possible limitations of the study and the small number of professionals; however, we evaluated two different levels of OFH professionals: specialists and professionals performing specialization. OFH is a growing and promising specialty of dentistry, however, in 2021, in Brazil, there are only 797 OFH registered in the Federal Council of Dentistry. Therefore, the analysis of specialists and professionals performing specialization may introduce a bias because the level of knowledge impairs perceptions regarding health technologies, which is a major limitation of our study.[38] However, this was the first step towards using a promising scale to recognize facial esthetic demands and evaluate the efficacy of facial harmonization procedures. However, future research should evaluate the actual internal validity of this construct in patients with different demands and how the scale and realization of this demand impact their self-perception of health.

Conclusion

Thus, we conclude that the cross-culturally adapted FACE-Q SFAOS scale by Gama[7] has good reproducibility among professionals working with facial harmonization and promising acceptability.

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