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Evaluation of the sensitivity of the Psychosocial Scale of Facial Appearance in peripheral facial paralysis

Avaliação da sensibilidade da Escala Psicossocial de Aparência Facial na paralisia facial periférica

ABSTRACT

Purpose: To investigate the sensitivity and internal consistency of the Psychosocial Scale of Facial Appearance (PSFA) based on the comparison between its results and those from other facial functional assessment instruments: House-Brackmann scale (HBS) and Facial Grading System - and the psychosocial implications measured by the Hospital Anxiety and Depression Scale (HADS). **Methods:** The study was approved by the Research Ethics Committee of the aforementioned Institution under protocols no. 196.977 and 230.982. Thirty-eight adult individuals with Peripheral Facial Palsy (PFP) were submitted to closed interviews in order to evaluate the sensitivity of the questionnaire. Statistical analyses were conducted for each stage of this study. Data were entered in Excel® spreadsheet and analyzed using SPSS 17.0 and AMOS 22.0 for Windows®. **Results:** Study participants were 38 individuals with PFP aged 19-78 years with predominance of idiopathic paralysis (44.7%). Results of the Cronbach's Alpha coefficient showed strong internal consistency between the thematic groups and the questions; however, Confirmatory Factor Analysis indicated some questions with weak causal relationship between thematic groups, namely, questions 5 and 6 of the group Functional Aspects of Face, question 17 of the group Social Aspects, and question 23 of the group Emotional Aspects. **Conclusion:** This study provided the first steps for the subsidy and support of an instrument designed to investigate the psychosocial aspects associated with PFP, enabling the preparation of questions and their organization into thematic groups. However, further studies are needed to conclude the validation processes.

RESUMO

Objetivo: Investigar a sensibilidade e consistência interna do instrumento a partir da comparação com os resultados dos instrumentos de avaliação funcional facial, escala de House-Brackmann (HBS) e Sistema de Gradação Facial, e implicações psicossociais a partir da aplicação da Escala Hospitalar de Ansiedade e Depressão (HADS). **Método:** Pesquisa aprovada pelo comitê de ética em pesquisa, sob o protocolo nº. 196.977 e 230.982. A avaliação da sensibilidade do questionário foi realizada por meio de entrevistas fechadas em sujeitos adultos com PFP, sendo 38 selecionados para essa etapa. A análise estatística foi realizada para cada uma das etapas deste estudo, os dados foram digitados em Excel®, analisados pelos programas SPSS versão 17.0 para Windows e AMOS versão 22.0 para Windows®. **Resultados:** Participaram 38 sujeitos, entre 19 e 78 anos, com predominância de paralisia idiopática (44,7%). Os resultados do Alfa de Cronbach mostraram uma consistência interna forte entre os grupos temáticos e as questões, no entanto a análise fatorial confirmatória alertou para questões cuja relação de causa entre os grupos temáticos foi fraca, como nos casos das questões 5 e 6 do grupo temático Aspectos Funcionais da Face, questão 17 dos Aspectos Sociais e questão 23 dos Aspectos Emocionais. **Conclusão:** Essa pesquisa constituiu os primeiros passos para o subsídio e respaldo de um instrumento que investiga os aspectos psicossociais associados à PFP, sendo possível a elaboração de questões e ordenação em grupos temáticos. Porém, faz-se necessária a continuidade de estudos para a efetivação dos processos de validação.

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INTRODUCTION

Peripheral facial palsy (PFP) results from reduction or interruption of axonal transport to the seventh cranial nerve (CN VII), causing partial or complete paralysis of the facial mimetic muscles. This often occurs because the CN VII extends over a long course, presenting angles and a narrow channel known as the fallopian canal⁽¹⁻³⁾.

Individuals with changes in the face are affected by their appearance and the possible effect it may have on others^(4,5). Complaints about loss of identity or not being able to look at oneself have been commonly reported^(6,7), and the pain of losing a facial characteristic can be worse when it occurs unexpectedly, as in PFP cases⁽⁸⁻¹³⁾.

In this context, previous studies have presented proposals of preparation of a questionnaire to investigate the psychosocial impact of PFP^(12,13). To this end, it was necessary to construct a theoretical basis to prepare a questionnaire called the Psychosocial Scale of Facial Appearance (PSFA), subsequently submit it to the assessment of judges, and finally apply it in the pilot studies^(13,14). The results showed that the evaluation of the judges was essential for the improvement of this instrument, and that the pilot studies demonstrated that its application in the form of closed interviews is the most appropriate alternative for the research proposal, when participants present varied literacy skills and understanding of the questions⁽¹⁴⁻¹⁶⁾.

Continuing with the aforementioned research, the present study addresses the applicability and reliability of the PSFA^(13,14) in order to contribute to the explanation/assessment of the psychosocial aspects in PFP and, by extension, in the therapeutic conduct and effectiveness of PFP treatment in Speech-language Pathology practice.

The reliability of a questionnaire can be measured using techniques of partitioning and of estimation of the magnitude of error to which the instrument is exposed. One of the techniques most commonly used for this is the internal consistency method, which measures the mean correlation between the items, composing a level of reliability calculated by the Cronbach's Alpha coefficient⁽¹⁷⁾.

Thus, it is worth emphasizing that application of the PSFA^(13,14) consists in accurately reaching and delimiting the implications of its use in a larger number of individuals and considering the diverse etiologies, degree of severity, and duration of PFP.

Therefore, the present study aimed to investigate the sensitivity and internal consistency of the PSFA based on the comparison between its results and those from other facial functional assessment instruments: House-Brackmann scale (HBS)⁽¹⁸⁾ and Facial Grading System⁽¹⁹⁾ - and the psychosocial implications measured by the Hospital Anxiety and Depression Scale (HADS)⁽²⁰⁾.

METHODS

Ethical considerations

This study was approved by the Research Ethics Committee of the aforementioned Institution under protocol no. 196.977 and 230.982. According to the ethical precepts recommended for human research, only the participants who agreed with the

procedures and signed an Informed Consent Form (ICF) were included in the study. Patients were told that their refusal would not affect the quality of their medical treatment. Participants' identity was preserved.

Study design

This cross-sectional study was conducted with patients assisted at a Facial Paralysis Outpatient Clinic of a Hospital in the city São Paulo, Brazil. A consecutive case selection process was adopted from August to December 2013. Inclusion criteria were as follows: patients with peripheral facial palsy (PFP) aged ≥ 18 years, of both genders, with unilateral PFP of diverse etiologies in the flaccid, recovery and sequela stages, and with definition of severity in the House-Brackmann scale⁽¹⁸⁾ and the Facial Grading System by Ross, Fradet and Nedzelski⁽¹⁹⁾.

Scales: application

The Psychosocial Scale of Facial Appearance (PSFA) derived from a previous pilot study^(13,14). It is composed of 24 questions divided into the three thematic groups: Functional Aspects of Face, Social Aspects, and Emotional Aspects.

The questionnaire was applied using the closed interview format based on neutral reading of the questions. In case of doubts, the interviewer explained the questions to the participants by providing simplification or examples.

Participants also responded to the Hospital Anxiety and Depression Scale (HADS)⁽²⁰⁾, which comprises 14 items, as a comparative instrument. Seven of these items assess anxiety (HADS-A) whereas seven evaluate depression (HADS-D). The cut-off scores are as follows: HADS-A: normal from 0 to 8; anxiety ≥ 9 ; HADS-D: normal from 0 to 8; depression ≥ 9 .

Statistical analysis

Descriptive analysis of the data was performed using absolute and relative frequencies and central tendency (mean and median) and dispersion (standard deviation, minimum and maximum) measures.

The Mann-Whitney and Kruskal-Wallis non-parametric tests were applied to validate the thematic groups of the PSFA and the questionnaire in order to verify possible groups with different behaviors between the scales. Convergent validity was analyzed using the Spearman's correlation coefficient (r). For this calculation, the variable Symmetry of Involuntary Movement Score was altered in the scoring scale in order to maintain the same orientation of the other scales of the questionnaire.

The Cronbach's Alpha coefficient was used in the internal validity of the scales.

Covariance matrix and the Maximum Likelihood Estimation (MLE) method were used in the Confirmatory Factor Analysis. The parameters for conducting the Confirmatory Factor Analysis are described ahead⁽²¹⁾:

- Chi-squared (X^2) test, which proves the probability that the model will fit the data. A statistically significant X^2 value indicates discrepancies between the data and the theoretical

model being tested. It is influenced by the sample size and assumes the multinormality of the set of variables;

- Goodness-of-Fit Index (GFI) and Adjusted Goodness-of-Fit Index (AGFI), which are weighted according to the degrees of freedom of the model with respect to the number of variables considered. GFI and AGFI higher than or close to 0.95 and 0.90, respectively, are recommended. These statistics are not influenced by the sample size;
- Comparative Fit Index (CFI), which is an additional comparative index of fit to the model, with values closer to 1 indicating a better fit, and 0.90 as the standard to accept the model;
- Chi-square/degree of freedom ($\chi^2/\text{d.f.}$) ratio, is considered a quality of subjective adjustment. Values <5.00 can be interpreted as indicators of fit of the theoretical model to describe the data;
- Root Mean Square Error of Approximation (RMSEA), whose values close to 0.06 and 0.08, respectively, are recommended with confidence interval of 90% (90% CI). High values indicate an unadjusted model.

A significance level of 5% ($p < 0.05$) was adopted for all descriptive statistical analyses. Data were entered in Excel® spreadsheet and processed using SPSS 17.0 and AMOS 22.0 for Windows®.

RESULTS

Data from 38 individuals with mean age of 47.6 years ($SD=16.2$), median of 47.7 years, minimum and maximum ages of 19 and 78 years, respectively, were collected for the assessment of sensitivity. The female gender was predominant (52.6%) in the study sample, and 65.8% of the participants reported being married during the data collection period.

Peripheral facial palsy (PFP) was manifested suddenly in 97.4% of the sample. Idiopathic etiology was recurrent in 44.7% of the cases. Regarding the stage of PFP, 55.3% of the participants were in the sequela stage, 26.3% in the flaccid stage, and 18.4% in the recovery stage. With respect to duration of the PFP, results showed mean of 13.8 months ($SD=21.8$), median of 6.6 months, ranging from shorter than one to 124.1 months (approximately 10 years).

The sum of the response scores of the Psychosocial Scale of Facial Appearance (PSFA) can range from 0 to 72. In order to validate the questionnaire, it was first verified whether the scores presented the same distribution according to gender, etiology, the House-Brackmann scale, and duration of the PFP (Tables 1-4). The variable etiology was grouped into two categories for analysis: Idiopathic and Other Observed Diseases. In all analyzed variables, the groups were homogeneous, enabling validation of the entire sample ($p > 0.05$).

Table 1. Comparative analysis between genders in the Psychosocial Scale of Facial Appearance (PSFA)

Variable	Gender								p^*
	Male				Female				
	n	$\bar{X}$ (SD)	Median	Min-Max	n	$\bar{X}$ (SD)	Median	Min-Max	
Functional Aspects of Face	18	11.4 (6.3)	11.5	1-20	20	12.8 (4.7)	12.5	3-20	0.573
Social Aspects - performance of tasks	18	1.3 (3.9)	2	0-11	20	4.9 (3.1)	4.5	0-10	0.093
Social Aspects - social interaction	18	3.7 (3.1)	4	0-9	20	5.1 (3.9)	6	0-12	0.290
Social Aspects - general	18	6.9 (6.7)	5.5	0-19	20	10.0 (5.6)	10	2-21	0.099
Emotional Aspects	18	9.8 (6.1)	10.5	1-23	20	11.6 (5.7)	12	2-20	0.361
General scale	18	28.2 (16.8)	27	4-61	20	34.3 (13.7)	35.5	8-56	0.149

*Mann-Whitney test†

Caption: $\bar{X}$ = values; SD = standard deviation; n = number of individuals

Table 2. Comparative analysis between disease etiologies in the PSFA

Variable	Etiology								p^*
	Idiopathic				Other Observed Diseases				
	n	$\bar{X}$ (SD)	Median	Min-Max	n	$\bar{X}$ (SD)	Median	Min-Max	
Functional Aspects of Face	17	13.2 (5.6)	15	1-20	21	11.2 (5.5)	11	1-20	0.722
Social Aspects - performance of tasks	17	4.4 (3.9)	4	0-11	21	4.0 (3.3)	3	0-10	0.250
Social Aspects - social interaction	17	4.5 (3.1)	5	0-10	21	4.3 (4.0)	4	0-12	0.255
Social Aspects - general	17	8.9 (6.2)	9	0-19	21	8.2 (6.5)	7	0-21	0.203
Emotional Aspects	17	12.1 (6.0)	12	1-23	21	9.7 (5.6)	11	1-19	0.150
General scale	17	34.2 (15.4)	36	4-61	21	29.1 (15.3)	25	8- 6	0.307

*Mann-Whitney test

Caption: $\bar{X}$ = values; SD = standard deviation; n = number of individuals

† The Mann-Whitney is a nonparametric test applied to two independent samples to verify whether they belong to the same sample or not.

Table 3. Comparative analysis between the scores of the House-Brackmann and PSFA scales

Score	House-Brackmann												<i>p</i> *
	III				IV				V				
	n	$\bar{X}$ (SD)	Median	Min-Mix	n	$\bar{X}$ (SD)	Median	Min - Max	n	$\bar{X}$ (SD)	Median	Min-Max	
Functional Aspects of Face	17	9.9 (6.3)	11	1-20	12	13.4 (4.4)	12.5	6-20	9	14.6 (4.1)	15	8-20	0.108
Social Aspects - performance of tasks	17	3.1 (3.0)	2	0-10	12	5.0 (3.9)	4.5	0-11	9	5.0 (3.8)	4	0-10	0.254
Social Aspects - social interaction	17	3.2 (3.5)	3	0-10	12	5.2 (3.2)	5.5	0-11	9	5.6 (3.9)	6	0-12	0.182
Social Aspects - general	17	6.3 (6.0)	4	0-19	12	10.2 (5.5)	10	0-18	9	10.6 (7.4)	12	0-21	0.156
Emotional Aspects	17	9.8 (6.1)	11	1-20	12	12.3 (5.2)	12	4-23	9	10.6 (6.7)	12	1-19	0.595
General scale	17	25.9 (15.8)	25	4-55	12	35.9 (12.3)	32	21-60	9	35.7 (16.3)	36	11-56	0.211

*Kruskal-Wallis test[†]**Caption:** $\bar{X}$ = values; SD = standard deviation; n = number of individuals**Table 4.** Comparative analysis between duration of peripheral facial palsy (PFP) and the PSFA

Variable	Duration of PFP ^y								<i>p</i> [*]
	≤ 6.6 months				> 6.6 months				
	n	$\bar{X}$ (SD)	Median	Min-Max	n	$\bar{X}$ (SD)	Median	Min-Max	
Functional Aspects of Face	18	12.9 (5.7)	12.5	1-20	20	11.4 (5.5)	12	1-18	0.395
Social Aspects - performance of tasks	18	3.8 (3.9)	3.5	0-11	20	4.4 (3.3)	3.5	0-10	0.595
Social Aspects - social interaction	18	4.1 (2.9)	4.5	0-8	20	4.7 (4.1)	4	0-12	0.733
Social Aspects - general	18	7.9 (6.0)	7	0-18	20	9.1 (6.7)	8.5	0-21	0.598
Emotional Aspects	18	10.4 (5.9)	11	1-23	20	11.1 (6.1)	12.5	1-20	0.481
General scale	18	31.2 (15.0)	29	9-61	20	31.6 (16.0)	30	4-55	0.953

*Mann-Whitney test; [†]Duration category by the median value of the sample**Caption:** $\bar{X}$ = values; SD = standard deviation; n = number of individuals**Table 5.** Spearman's correlation coefficient (*r*) according to thematic group

Thematic group	Resting Symmetry score	Symmetry of Voluntary Movement score	Synkinesis score	Composed score	Note assigned to the face	HADS A	HADS D	HADS Total
	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)
Functional Aspects of Face	0.43 (0.006)	0.30 (0.072)	0.25 (0.127)	0.28 (0.085)	-0.44 (0.005)	0.21 (0.206)	0.42 (0.009)	0.34 (0.037)
Social Aspects - performance of tasks	0.15 (0.382)	0.22 (0.185)	0.18 (0.278)	0.27 (0.097)	-0.56 (<0.001)	0.36 (0.027)	0.57 (<0.001)	0.52 (<0.001)
Social Aspects - social interaction	0.24 (0.144)	0.29 (0.074)	0.04 (0.794)	0.30 (0.069)	-0.33 (0.043)	0.43 (0.007)	0.53 (<0.001)	0.53 (<0.001)
Social Aspects - general	0.21 (0.199)	0.28 (0.094)	0.14 (0.408)	0.32 (0.053)	-0.49 (0.002)	0.46 (0.003)	0.64 (<0.001)	0.61 (<0.001)
Emotional Aspects	0.21 (0.216)	0.02 (0.920)	0.34 (0.037)	0.06 (0.732)	-0.48 (0.002)	0.40 (0.012)	0.74 (<0.001)	0.64 (<0.001)
General scale	0.31 (0.060)	0.21 (0.205)	0.30 (0.069)	0.24 (0.142)	-0.53 (<0.001)	0.37 (0.023)	0.67 (<0.001)	0.58 (<0.001)

Caption: HADS = Hospital Anxiety and Depression Scale; HADS A = anxiety; HADS D = depression; *r*(*p*) = Spearman's correlation coefficient

In the convergent validity analysis, statistically significant correlation was observed between the thematic group Functional Aspects of Face and the assessment of Resting Symmetry ($r=0.43$; $p=0.006$) and between the thematic group Emotional Aspects and the assessment of Synkinesis ($r=0.34$; $p=0.037$) (Table 5). It is worth noting that, in the thematic group Functional Aspects of

Face, questions 1, 2, 4, 7, and 8 presented statistically significant correlation, respectively, $r=0.35$ ($p=0.032$), $r=0.33$ ($p=0.041$), $r=0.66$ ($p<0.001$), $r=0.38$ ($p=0.018$), and $r=0.33$ ($p=0.044$). As for the thematic group Emotional Aspects, questions 19 ($r=0.51$; $p=0.001$) and 22 ($r=0.39$; $p=0.017$) presented statistically significant correlation.

[†] The Kruskal-Wallis is a non-parametric test used to compare three or more independent samples, indicating whether there is a difference between at least two of them.

Chart 1. Analysis of the Cronbach's alpha coefficient according to scales

Score	Questions	α Cronbach
Functional Aspects of Face	1 to 8	0.74
Social Aspects - performance of tasks	9 to 12	0.74
Social Aspects - social interaction	13, 14, 17, and 18	0.72
Social Aspects - general	9 to 14, 17, and 18	0.82
Emotional Aspects	15, 16, and 19 to 24	0.77
General scale	1 to 24	0.90

Caption: PSFA = Psychosocial Scale of Facial Appearance; FAF = Functional Aspects of Face; SA - PT = Social Aspects - Performance in tasks; SA - SI = Social Aspects - Social interactions; EA = Emotional Aspects

Figure 1. Confirmatory Factor Analysis

The thematic groups of the questionnaire developed for this research presented statistically significant correlation ($p>0.05$) with the face scales HADS A - except for the correlation of the group Functional Aspects of Face ($p=0.206$), HADS D, and HADS Total (Table 5). Statistically significant correlations presented weak to moderate magnitudes, with the highest correlation observed between the thematic group Emotional Aspects and the HADS D scale ($r=0.74$; $p<0.001$) (Table 5).

As for internal consistency, all thematic groups presented Cronbach's Alpha coefficient >0.70 , evidencing excellent internal consistency between the questions of the proposed questionnaire. The general PSFA scale showed Cronbach's $\alpha=0.90$ (Chart 1).

Figure 1 depicts the domains of the thematic groups according to Confirmatory Factor Analysis, where the following measures can be observed: $X^2/d.f.=1.17$, $GFI=0.59$, $CFI=0.61$, and $RMSEA=0.132$, with factor loadings ranging from weak (0.14) to strong (≥ 0.60).

It is worth noting the presence of weak factor loadings for questions 5 and 6 within the thematic group Functional Aspects of

Face and questions 17 and 23 within the thematic group Emotional Aspects. Likewise, it is worth highlighting the presence of strong factor loadings for questions 1, 2, 4, and 7 within the thematic group Functional aspects of face, questions 9, 10, 11, and 13 within Social Aspects, and questions 16, 19, and 21 within Emotional Aspects.

Based on the results obtained, a readjustment of the PSFA was performed, and the questions with weak factor loadings were removed. To this end, the total score for this version of the PSFA ranges from 0 to 60, and a new analysis is needed to define the best cut-off point for tracking the psychosocial impact associated with PFP.

DISCUSSION

From the sample of this study, it was possible to assess the sensitivity and internal consistency of the Psychosocial Scale of Facial Appearance (PSFA). Results of the Cronbach's Alpha coefficient showed strong internal consistency between the thematic groups and the questions; however, Confirmatory Factor Analysis alerted for questions whose cause relationship between the thematic groups was weak, as in questions 5 and 6 of the group Functional Aspects of Face and questions 17 and 23 of the group Emotional Aspects, which were withdrawn from the instrument^(13,14) (Appendix A).

Within the thematic group Functional Aspects of Face, the weak factor loading of question 5 (I cannot control the movements in my face when I speak, smile, chew and/or close my eyes) is justified by resuming the assessment of the judges^(13,14), who indicated this question as a matter of conflict on the scale. It is known that these aspects begin to appear only in the sequela stage of peripheral facial palsy (PFP), and investigation of their relevance is necessary only for this group.

Question 6 (I feel pain in my face) was added after the judges' assessment. Face pain was expressed in few cases (15.8%).

Question 8 (I have difficulties kissing) presented limit factor loading (0.49); therefore, it was consistent to include it as the last question of this thematic group, following the criterion of comprehensive questions first, particular questions last. It is important to consider its level of intimacy, and it is necessary that confidence in the interviewer be greater so that a result of trustworthiness with this question can be established.

The thematic group Social Aspects presented stronger factor loading, and only question 17 (I have difficulty relating to my partner or, if I do not have a partner, starting a relationship with someone) presents particularity compared with the other

questions of this group, being difficult to problematize about it within a questionnaire.

Finally, the thematic group Emotional Aspects presented most questions with factor loading above the recommended (0.50); however, when these individuals had to refer to their past, as in questions 23 (I suspect the change in my face is associated with previous events of sadness, distress, stress and/or anxiety) and 24 (I remember when I saw the change in my face I felt scared, desperate and/or distressed), the factor loadings were below the expected, with question 23 presenting the weakest factor loading (0.14).

Question 24 was maintained in the questionnaire because it had proved its relevance in previous studies^(5,6,9,10), in which feeling scared was mentioned by 75% of individuals⁽⁹⁾.

In contrast, question 23 was removed from the PSFA^(13,14), and its low relevance in this study can be associated with the fact that it is a topic that depends on greater elaboration, and not a cross-section issue as established in this survey, but something that may possibly appear in clinical practice longitudinally and that demands attention from the professional.

It is also important to mention that there were questions with factor loading higher than expected. Questions 1, 2, 4, and 7 within the thematic group Functional Aspects of Face, questions 9, 10, 11, and 13 within Social Aspects, and questions 16, 19, and 21 within Emotional Aspects demonstrated that the study was able to transform previously researched categories and literature review into objective questions, without reducing or disassociating their purpose^(9,13,14).

In summary, this study investigated the psychosocial aspects involved in PFP based on the application of the PSFA - an instrument developed in a previous research and that depends on further studies and larger samples to be validated. However, the results of this study showed that this scale presents important levels of applicability and sensitivity.

CONCLUSION

The Psychosocial Scale of Facial Appearance (PSFA) has proved to be an effective instrument, capable of measuring the functional, social and psychological aspects of the face in a considerable part of the questions developed.

Application of this scale is simple, but it requires previous study of psychoanalytic theory to understand the concepts of symptom and listening and of social stigma theory to dimension the ways of coping with facial changes in society. Knowledge about these theories contributes to detailed analysis and interpretation of the responses obtained in the questionnaire and can collaborate with how to conduct the clinical case.

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Author contributions

MFFS: study design, collection and interpretation of data, and writing of the manuscript; SVP: interpretation and statistical analysis of data and critical revision and approval of the manuscript; PRL: critical revision and approval of the manuscript; MCC: study design and critical revision and approval of the manuscript.

Appendix A. New version of the Psychosocial Scale of Facial Appearance (PSFA) after Confirmatory Factor Analysis

Psychosocial Scale of Facial Appearance

NAME: _____ Date: ____/____/____

This questionnaire will assist with understanding the impact of facial physical change on your emotional and social life.

Please respond to all the corresponding questions. In case of doubt, ask for clarification. Use the space for comments at the end of the form for additional information.

Mark ONLY ONE NUMBER thinking of LAST WEEK and your FACE		Always	Sometimes	Seldom	Never
FAF	1) I have difficulty moving my face.	3	2	1	0
FAF	2) I have difficulty blinking or closing my eyes.	3	2	1	0
FAF	3) I have difficulty keeping fluids or food in my mouth.	3	2	1	0
FAF	4) I have difficulty speaking some words with the sounds: 'p', 'b', 'm', 'f', 'v', 'ch' and 'g'.	3	2	1	0
FAF	5) I cannot express my emotions with my face.	3	2	1	0
FAF	6) I have difficulties kissing.	3	2	1	0
SA - PT	7) I have difficulties leaving the house, visiting family and/or friends.	3	2	1	0
SA - PT	8) It bothers me to be in a picture.	3	2	1	0
SA - PT	9) It bothers me to eat in front of people.	3	2	1	0
SA - PT	10) It bothers me to go to work and/or attend classes.	3	2	1	0
SA - SI	11) It bothers me to talk face to face with people.	3	2	1	0
SA - SI	12) I am more comfortable only with people from my social circle.	3	2	1	0
EA	13) The difficulty to smile bothers me.	3	2	1	0
AE	14) I have lost my appetite.	3	2	1	0
SA - SI	15) I realize my family and friends treat me differently now.	3	2	1	0
EA	16) I suspect my face will not improve.	3	2	1	0
EA	17) It bothers me to notice that people who do not know me look at me in a different way.	3	2	1	0
EA	18) I feel sad or distressed when I am not able to express my emotions through facial expressions.	3	2	1	0
EA	19) I do not feel like caring for my appearance.	3	2	1	0
Mark ONLY ONE NUMBER		Agree	Partially agree	Cannot remember	Disagree
EA	20) I remember when I saw the change in my face I felt scared, desperate and/or distressed.	3	2	1	0

From 0 to 10, what note would you assign to your face? (0 = very bad; 10 = very good); In addition to these questions, would you like to add any other information?

Caption: FAF = Functional Aspects of Face; SA - PT = Social Aspects - Performance in tasks; SA - SI = Social Aspects - Social interactions; EA = Emotional Aspects