



# Cultural adaptation of the questionnaire on skin rejuvenation outcome evaluation (Skin Rejuvenation Outcome Evaluation - SROE)

## *Adaptação cultural do questionário de avaliação de resultados em rejuvenescimento de pele (Skin Rejuvenation Outcome Evaluation - SROE)*

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### ■ ABSTRACT

**Introduction:** The use of quality of life (QOL) questionnaires has been shown to be very useful in the sense of giving greater objectivity to the treatment outcomes evaluation. The internationalization of these instruments, in turn, allows for inter-population comparison but requires a specific methodology in order not to cause distortions due to flaws in translation or cultural differences. The SROE questionnaire (Skin Rejuvenation Outcome Evaluation), in English, is a simple application tool, with objective questions with a good application for this purpose. The questionnaire has already been tested for its reliability, validity, and responsiveness. **Methods:** Translation and cultural adaptation to the Portuguese language was carried out, according to the methodology proposed by Beaton et al. (2000), in which there are five stages: stage 1 - translation using two native Portuguese-speaking translators; stage 2 - making a synthesis version; stage 3 - reverse translation by two native English-speaking translators; stage 4 - review by an evaluation committee; and, stage 5 - application to a population of 20 people. **Results:** The questionnaire was successfully translated and adapted, without problems of understanding for the final population. **Conclusion:** Considering the applied methodology, we conclude that the SROE questionnaire's translation is suitable for use in Brazilian Portuguese. **Keywords:** Rejuvenation; Surveys and questionnaires; Skin; Translational medical research; Outcome assessment (health care).

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## ■ RESUMO

**Introdução:** O emprego de questionários de qualidade de vida (QV) tem se mostrado muito útil no sentido de dar maior objetividade à avaliação de resultados de tratamentos. A internacionalização desses instrumentos, por sua vez, permite a comparação interpopulacional, mas requer uma metodologia específica, a fim de não causar distorções devido a falhas na tradução ou a diferenças culturais. O questionário SROE (*Skin Rejuvenation Outcome Evaluation*), de língua inglesa, é uma ferramenta de simples aplicação, com perguntas objetivas com boa aplicação para esse fim. O questionário já foi testado em relação à sua confiabilidade, validade e capacidade de resposta. **Métodos:** Realizada tradução e adaptação cultural para a língua portuguesa, segundo a metodologia proposta por Beaton et al. (2000), na qual existem 5 estágios: estágio 1 - tradução por meio de dois tradutores nativos de língua portuguesa; estágio 2 - confecção de versão de síntese; estágio 3 - tradução reversa por dois tradutores nativos de língua inglesa; estágio 4 - revisão por um comitê avaliador; e, estágio 5 - aplicação a uma população de 20 pessoas. **Resultados:** O questionário foi traduzido e adaptado com sucesso, sem problemas de compreensão para a população final. **Conclusão:** Considerando a metodologia aplicada, concluímos que a tradução do questionário SROE é adequada para utilização em língua portuguesa do Brasil.

**Descritores:** Rejuvenescimento; Inquéritos e questionários; Pele; Pesquisa médica translacional; Avaliação de processos e resultados (cuidados de saúde).

## INTRODUCTION

The search for greater objectivity in evaluating treatment outcomes is necessary to improve evidence levels, especially in plastic surgery, whose major purpose is a subjective parameter, to enhance life quality (QOL)<sup>1</sup>.

In the literature, it is clear that cosmetic procedures' objective measurement mechanisms are still in their infancy. Anyway, they point to the trend of using patient reported outcome measures (PROM or PRO) through questionnaires, according to Morley 2012<sup>2</sup>. Fortunately, there are already significant advances in this area, with the publication of several articles proposing questionnaire models<sup>4</sup>.

The Breast-Q, Face-Q, and Satisfaction with Facial Appearance Scale and Skindex tools, for example, have already undergone a rigorous validation process, are entirely in line with the acceptance requirements of the US Food and Drug Administration (FDA) and stand out, together with Skindex, in relation to the other PROMs, according to Morley 2012<sup>2</sup>. Kosowski et al., in 2009<sup>4</sup>, found 442 articles evaluating outcomes in aesthetic, surgical or non-surgical procedures. Among

these, 47 were specific to facial appearance, but only 9 met the study's inclusion and exclusion criteria. None of them met all the guidelines. All tools proved to be limited, either due to their development, validation, or content. In that same study, Skin Rejuvenation Outcome Evaluation (SROE) and two other articles were specific for skin rejuvenation<sup>4</sup>.

The SROE (Figure 1) was described by Alsarraf, in 2000<sup>5</sup>, together with other questionnaires in English specific to blepharoplasty (Blepharoplasty Outcome Evaluation - BOE), rhinoplasty (Rhinoplasty Outcome Evaluation - ROE), and rhytidoplasty (Facelift Outcome Evaluation - FOE).

Such questionnaires address the physical, mental and social aspects, necessary for a fair assessment. The SROE questionnaire was tested concerning its validity, reliability, and responsiveness, being presented as a reliable quantitative tool for measuring outcomes<sup>3,6,7</sup>.

The internationalization of these questionnaires, in turn, allows the comparison of treatment outcomes between different populations. However, some care must be taken so that there are no distortions due to flaws in the translation or cultural differences that alter the questions' result. This would decrease

the inter-population comparative value<sup>8,9</sup>. Of the four questionnaires by Alsarraf (2000)<sup>5</sup>, only the ROE (Rhinoplasty Outcome Evaluation) and FOE (Facelift Outcome Evaluation) have been translated into Portuguese so far. The others, Blepharoplasty Outcome Evaluation (BOE) and Skin Rejuvenation Outcome Evaluation (SROE), do not have Portuguese versions yet<sup>10,11</sup>.

The SROE consists of six questions, as shown in Figure 1. Each answer can be rated from 0 (least satisfied as possible) to 4 (most satisfied as possible). The marked values must be added, divided by 24, and multiplied by 100, to obtain a score from 0 to 100, with

0 being the least satisfied possible and 100 the most satisfied<sup>5</sup>.

Such an instrument can be of great use for developing scientific studies and monitoring outcomes by surgeons and dermatologists. Thus, the present study's objective is to translate and culturally adapt the SROE questionnaire to Brazilian Portuguese.

**OBJECTIVE**

Translate and culturally adapt the Skin Rejuvenation Outcome Evaluation (SROE) questionnaire to Brazilian Portuguese.

**Skin Rejuvenation Outcomes Evaluation (SROE)**

This questionnaire is designed to assist your surgeon in determining the best patient outcomes following skin resurfacing. Your comments are confidential and may be used to refine resurfacing procedures for future patients. Please circle the number that best characterizes your current opinion regarding the following questions:

1. How well do you like the appearance and condition of your facial skin?

Not at all	Somewhat	Moderately	Very much	Completely
0	1	2	3	4

2. How much do your current facial lines and wrinkles bother you?

Completely	Very much	Moderately	Somewhat	Not at all
0	1	2	3	4

3. Do you think the current appearance of your facial skin makes you look old in others' eyes?

Completely	Very much	Moderately	Somewhat	Not at all
0	1	2	3	4

4. Do you think the condition of your facial skin limits your social or professional activities?

Always	Usually	Sometimes	Rarely	Never
0	1	2	3	4

5. How confident are you that the appearance of your facial skin is the best that it can be?

Not at all	Somewhat	Moderately	Very much	Completely
0	1	2	3	4

6. Would you like to alter the appearance and condition of your facial skin?

Definitely	Most likely	Possibly	Probably not	No
0	1	2	3	4

Figure 1. Original SROE questionnaire in English. Source: Aesthetic Plast Surg. 2000;24(3):192-7.

## METHODS

The study was authorized by the Research Ethics Committee of the Universidade Federal do Ceará, under protocol number 33290513.8.0000.5589 and performed at the clinic Eduardo Furlani Cirurgia Plástica in 2019.

The SROE questionnaire was translated and culturally adapted to the Portuguese language of Brazil, according to the methodology proposed by Beaton et al. (2000)<sup>8</sup>, according to the flowchart in Figure 2. This methodology consists of five stages and is accepted in the literature for translation of several other instruments.

### Translation

**Stage 1:** the questionnaire was submitted to two translations (T1 and T2) from English to Portuguese. One was performed by a lay translator and the other by a plastic surgeon translator, experienced in the procedure, as recommended by the literature.

**Stage 2 (synthesis):** the Portuguese versions T1 and T2 of the questionnaires were evaluated by both stage 1 translators. The translators discussed the differences between their versions and developed a consensual version, called T-12.

**Stage 3 (reverse translation):** the T-12 questionnaire was submitted to two lay translators (B1 and B2), unaware of each other or of the current study, whose native language was English.

**Stage 4 (submission to a specialist committee):** a medical board with knowledge in the area was requested to follow the process, evaluating the versions, pointing out inconsistencies and deviations. This board

was composed of a dermatologist, a general surgeon, and an orthopedist.

There was pacification, through discussions, on four points:

**Semantic equivalence:** the translations were evaluated to preserve their meaning, for the possibility of multiple meanings, and the existence of grammatical difficulties.

**Idiomatic equivalence:** expressions or colloquialisms are difficult to translate. The committee sought the presence of these expressions and equivalents in the Portuguese language.

**Experimental equivalence:** the questioned experiences were evaluated for their existence in the Portuguese language.

**Conceptual equivalence:** expressions must contain the same concept. For example, when it comes to the family, in some cultures, it has the meaning of the nearest small family unit, and others include all relatives.

### Cultural adaptation

**Stage 5 (or pre-final version test):** a pre-test with the final version T-12 was carried out with a sample of 20 people. This group was composed of graduate students of dermatofunctional physiotherapy. Each participant completed the questionnaire and was interviewed by the researcher to point out possible inconsistencies and difficulties in understanding.

**Stage 6:** submission of documentation to the expert committee to verify the translation process.

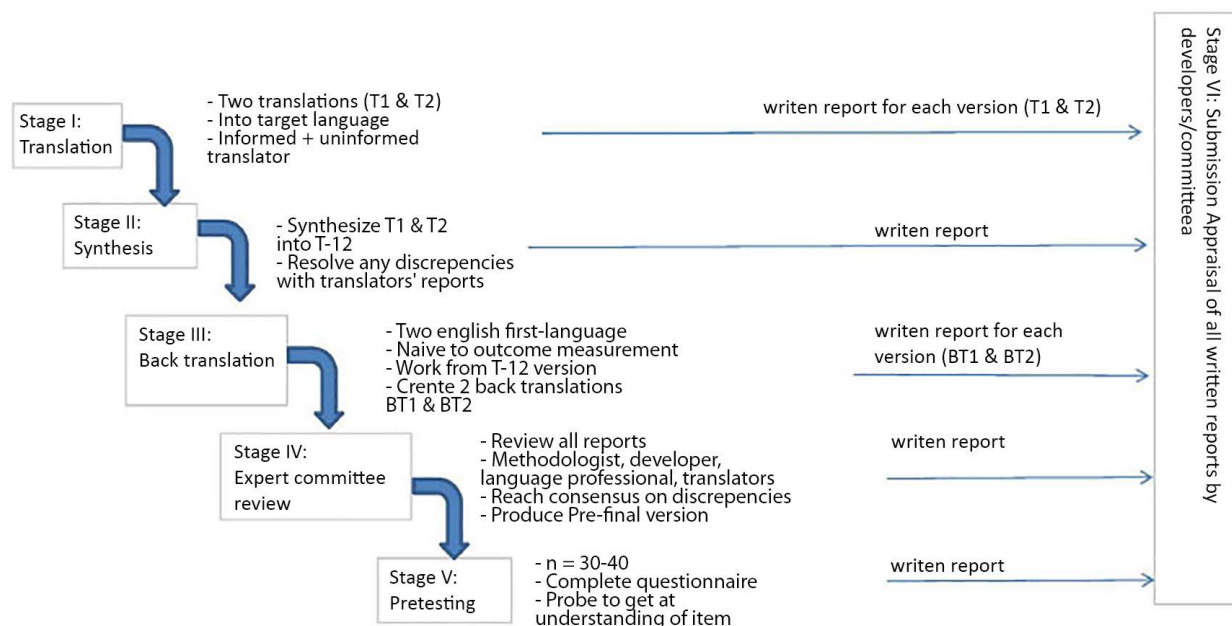


Figure 2. Flowchart of the translation and cultural adaptation methodology proposed by Beaton et al. (2000)<sup>8</sup>

## RESULTS

The SROE questionnaire was translated into versions T1 and T2; there were some divergence points between the two versions, but a consensus was reached on the T-12 version. This version was subjected to two reverse translations B1 and B2, which presented some divergences but without changing the original meaning.

Versions B1 and B2 were analyzed by the author of the original questionnaires, contacted by e-mail, who did not identify any change in meaning or inconsistency between the questionnaire translated from Portuguese into English and its original version.

There were no difficulties in completing and understanding the questionnaires.

The committee evaluated all steps of the translation process and contributed suggestions for changes, which were accepted. Consequently, the final result of the translation was as follows (Figure 3).

## DISCUSSION

There were no significant difficulties in translating the questionnaires due to the small number of expressions with no known translation into Portuguese.

We believe that quality of life questionnaires are essential to make some subjective parameters more objective and comparable. This allows outcomes to be compared, providing better levels of evidence in an area of knowledge that lacks it. However, there is still no perfect questionnaire.

<b>Avaliação de Resultados do Rejuvenescimento da Pele (SROE)</b>					
<p>Esse questionário foi feito para ajudar o seu cirurgião a definir os melhores resultados para os pacientes após um procedimento de rejuvenescimento da pele do rosto. Seus comentários são sigilosos e poderão ser usados para melhorar os procedimentos cirúrgicos para pacientes futuros. Por favor, circule o número que melhor caracteriza a sua opinião atual a respeito das seguintes perguntas:</p>					
1.	O quanto você gosta da aparência e do estado da pele do seu rosto?				
	Não gosto 0	Um pouco 1	Moderadamente 2	Muito 3	Completamente 4
2.	O quanto as suas atuais linhas faciais e as suas rugas o(a) incomodam?				
	Completamente 0	Muito 1	Moderadamente 2	Um pouco 3	Não me incomodam 4
3.	Você acha que a aparência atual da pele do seu rosto lhe faz parecer mais velho(a) aos olhos dos outros?				
	Completamente 0	Muito 1	Moderadamente 2	Um pouco 3	De forma alguma 4
4.	Você acha que o estado atual da pele do seu rosto limita suas atividades sociais e profissionais?				
	Sempre 0	Geralmente 1	Às vezes 2	Raramente 3	Nunca 4
5.	Você se sente confiante de que a aparência da pele do seu rosto é a melhor possível?				
	Não, de forma alguma 0	Um pouco 1	Moderadamente 2	Muito 3	Completamente 4
6.	Você gostaria de alterar a aparência e o estado da pele do seu rosto?				
	Com certeza 0	Provavelmente 1	Possivelmente 2	Provavelmente não 3	Não 4

Figure 3. SROE questionnaire translated by the authors.

The comparison of tools is outside the scope of this study. However, although the SROE questionnaire has shown its validity, reliability, and responsiveness statistically, its design does not seem to be as well-founded as that of Face-Q, which provides a significant interval level. This allows the construction of defined units with a uniform distance between them. For example, this means that if a person evolved from a score of 100 to 120, there was an increase similar to that of another who grew from 120 to 140, which is not true for most other instruments<sup>12</sup>.

Unlike Face-Q, the SROE is a specific questionnaire for non-surgical, public, and freely available skin rejuvenation, facilitating its translation. Its application takes less than 1 minute. Other shortcomings of SROE are that there are still no cut-off points and normality levels, even in their original language, which we suggest for future studies.

## CONCLUSION

Considering the applied methodology, we conclude that the SROE questionnaire's translation is suitable for use in Brazilian Portuguese.

## COLLABORATIONS

<b>EATF</b>	Analysis and/or data interpretation, Conception and design study, Data Curation, Final manuscript approval, Formal Analysis, Funding Acquisition, Methodology, Project Administration, Realization of operations and/or trials, Resources, Supervision, Visualization, Writing - Original Draft Preparation, Writing - Review & Editing
<b>DBS</b>	Formal Analysis, Visualization, Writing - Review & Editing

**MLMC** Visualization, Writing - Review & Editing

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