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# Cross-cultural adaptation of the Social Appearance Anxiety Scale to the Portuguese language

*Adaptação transcultural da Social Appearance Anxiety Scale para a língua portuguesa*

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## ABSTRACT

**Objectives:** To perform the cross-cultural adaptation of the Social Appearance Anxiety Scale (SAAS) to the Portuguese language and estimate its internal consistency in a sample of Brazilian young adults. **Methods:** The cross-cultural adaptation process followed international references based on five stages (translation, synthesis, back-translation, expert assessment, and pretest) to assess idiomatic, semantic, conceptual, and cultural equivalence. The internal consistency was estimated by the ordinal alpha coefficient ( $\alpha$ ). **Results:** The new Portuguese version is presented in this study with minor changes from the original that did not violate the meaning of the items. This version was tested in 30 adults (women = 56.7%,  $M_{age} = 26.0$  [SD = 6.2] years) who understood the content. The participants completed the scale in an average time of 4.6 (SD = .6) minutes. The internal consistency of the scale was good ( $\alpha = .95$ ) when applied in a sample of 80 adults (women = 51.2%,  $M_{age} = 28.0$  [SD = 5.7] years). **Conclusions:** The new Portuguese version of the SAAS was equivalent to the original in the idiomatic, semantic, and conceptual area. As the Brazilian participants understood the Portuguese version, cultural equivalence was found. The instrument's internal consistency was adequate to the sample. The findings of this study may help researchers and clinicians interested in using the SAAS in Brazilian context for tracking characteristic symptoms of social anxiety due to physical appearance. However, before using SAAS in any protocol, it is important to evaluate its psychometric properties, especially the construct validity.

## KEYWORDS

Social anxiety, body image, adaptation, transcultural.

## RESUMO

**Objetivos:** Realizar a adaptação transcultural da *Social Appearance Anxiety Scale* (SAAS) para a língua portuguesa e estimar sua consistência interna em uma amostra de adultos jovens brasileiros. **Métodos:** O processo de adaptação transcultural seguiu referências internacionais baseando-se em cinco etapas (tradução, síntese, retrotradução, avaliação de especialistas e pré-teste) para avaliar as equivalências idiomática, semântica, conceitual e cultural. A consistência interna foi estimada pelo coeficiente alfa ordinal ( $\alpha$ ). **Resultados:** A versão em português foi apresentada com pequenas alterações em relação à original, mas isso não comprometeu o significado conceitual dos itens. Essa versão foi pré-testada em 30 adultos [mulheres = 56,7%;  $M_{idade} = 26,0$  (DP = 6,2) anos], que compreenderam bem o conteúdo. O tempo médio de preenchimento da escala foi de 4,6 (DP = 0,6) minutos. A consistência interna da escala foi boa ( $\alpha = 0,95$ ) quando aplicada em uma amostra de 80 adultos [mulheres = 51,2%;  $M_{idade} = 28,0$  (DP = 5,7) anos]. **Conclusões:** A versão em português da SAAS foi equivalente à original nas áreas idiomática, semântica e conceitual. Além dessas, a equivalência cultural foi atendida, pois a versão em português foi bem compreendida pelo público brasileiro. A consistência interna do instrumento foi adequada para a amostra. Os achados deste estudo podem ajudar pesquisadores e clínicos interessados em usar a SAAS em contexto brasileiro para rastrear sintomas característicos de ansiedade social devido à aparência física. Entretanto, antes de usar a SAAS em qualquer protocolo, é importante avaliar suas propriedades psicométricas, especialmente a validade de construto.

## PALAVRAS-CHAVE

Ansiedade social, imagem corporal, adaptação, transcultural.

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## INTRODUCTION

Body image is a multidimensional construct that involves the perception, behavior, and affection towards one's body. Body image studies have been aimed at understanding the intrinsic factors that make a person feel satisfied or dissatisfied when looking at his or her body<sup>1</sup>. Anxiety can be understood as an emotional state related to awareness, alertness, or avoidance behaviors that can trigger negative outcomes in different aspects of life including social impact<sup>2</sup>. The relationship between body image and social anxiety has been studied to investigate their effects on physical and mental health<sup>1,3</sup>.

Social anxiety due to appearance is a feeling that people may experience due to the real or imagined assessment of their body by others<sup>3,4</sup>. Depending on the anxiety level, such people can get psychologically affected whenever they engage in activities in which their bodies are exposed. Therefore, screening for symptoms of social anxiety can help researchers and health professionals develop preventive strategies to avoid the onset of mental disorders<sup>2</sup>. For this purpose, psychometric instruments are used, such as the Social Physique Anxiety Scale (SPAS)<sup>3</sup> and the Social Appearance Anxiety Scale (SAAS)<sup>4</sup>. The SPAS was developed in the USA in 1989 and has since been used widely. In Brazil, the Portuguese version of the SPAS was made available for the first time in 2009<sup>5</sup>, expanding its use in the scientific community. However, its factorial structure and its focus on weight, shape, and musculature has been criticized<sup>4</sup>.

On the other hand, SAAS, developed in 2008 also in the USA, assesses social anxiety due to appearance in a broader manner, such as worry of being negatively judged by others, fear of being unattractive, anxiety about not meeting the standards, concern about missing opportunities (e.g., work), and nervousness about knowing what is being observed. In this way, the scale is based on theoretical concepts of negative body image<sup>1,4</sup>. The SAAS has been used in different countries, such as Germany<sup>6</sup> and Turkey<sup>7</sup>, where its psychometric properties were considered adequate. A SAAS Portuguese version is not available in the literature, and it could be useful in Brazil, as the population has been increasingly concerned with body image<sup>8,9</sup>, which may lead to anxiety and depression<sup>10,11</sup>. Therefore, it is a promising tool that can be used alone or in conjunction with other tools for tracking symptoms of social physical anxiety.

Thus, the present work aimed to carry out the cross-cultural adaptation of the SAAS to the Portuguese language and to estimate its internal consistency in a sample of Brazilian young adults.

## METHODS

The cross-cultural adaptation of the SAAS was carried out in five stages based on literature<sup>12,13</sup>, after approval from

the author of the original version. As reported by Swami and Barron<sup>13</sup>, it is difficult to use a unique set of guidelines to produce an ideal cross-cultural adaptation, as procedures vary widely. Thus, we used two international references<sup>12,13</sup> in this process without following either one strictly. The study followed the guidelines of the Declaration of Helsinki. The research was approved by the Research Ethics Committee of the School of Pharmaceutical Sciences of São Paulo State University (UNESP) campus of Araraquara (C.A.A.E.: 22051619.8.0000.5426). All participants gave consent by signing the Free Informed Consent form.

### Instrument

The SAAS is a unidimensional self-report measure, which has 16 items (item 1 is reverse-coded). Participants indicate how characteristic each statement is of themselves on a 5-point *Likert*-type scale (ranging from 1 = not at all to 5 = extremely). Higher scores – calculated by summing up all items – indicate greater social anxiety due to appearance; however, there is no cut-off point to determine the degree of anxiety. The original study<sup>4</sup> tested SAAS on different samples of university students of both genders, demonstrating good psychometric properties.

### Scale translation

The English version of the SAAS was translated into Portuguese by three independent, bilingual researchers who were not familiar with the scale. Two translators had knowledge of the construct (i.e., social anxiety due to appearance), while one did not and also receive no information about it. Three experts were include at this stage as a tiebreaker criterion in case of disagreement.

### Synthesis of translations

The translated versions were analyzed by two body image experts and synthesized into a Portuguese “intermediate” version. This version was then referred to a Portuguese specialist for grammatical adequacy of the content.

### Back-translation

The Portuguese ‘intermediate’ version was back-translated by an American researcher – expert in social anxiety – with advanced knowledge of the Portuguese language and no knowledge of the SAAS. Then, the back-translation and the original version of the SAAS were compared for inconsistencies.

### Experts’ committee

The theoretical construct and cultural adequacy of the Portuguese version was assessed by three Brazilian experts in body image and psychology and by an expert in psychometry from Portugal. All experts were involved in previous stages.

## Pretest

The final Portuguese version was tested in a sample of men and women aged between 18 and 40 years. Participants were recruited in October 2019 at a public university (Unesp, campus of Araraquara). The exclusion criteria were blindness and individuals with incomplete elementary school. After signing the consent form, volunteers filled out the scale in a quiet room using paper and pencil. The sample size followed Beaton's<sup>12</sup> recommendation of 30 to 40 individuals.

## Statistical analysis

The understandability of the SAAS' content (i.e., instruction, items and response options) was assessed by the Usability Evaluation Questionnaire<sup>14</sup>. The average time to complete the scale was also estimated. In addition, the instrument's internal consistency was assessed using the ordinal alpha coefficient ( $\alpha$ )<sup>15</sup>, with a value greater than .70 being considered adequate. At this stage, we used a minimum sample size of 5 individuals for each SAAS item, totaling an  $n = 80$ . The R software was used to calculate the  $\alpha$ .

## RESULTS

In the SAAS translation and back-translation processes, there was no disagreement between the researchers indicating idiomatic and semantic equivalence. Regarding conceptual and cultural equivalences, the specialists suggested adding an instruction on how to fill in the items, which was done. In addition, the intermediate response options were named ("slightly = 2", "somewhat = 3", "very = 4"), as in the original version only response options 1 ("not at all") and 5 ("extremely") are named. This strategy was adopted to better guide the participant when responding to the items. Also, at the end of item 12, the word "physically (*fisicamente*)" was added to specify the content and in item 15 the word "companion (*companheiro[a]*)" was inserted as a synonym for partner. The modifications done in the Portuguese SAAS did not alter the original theoretical content of the scale. The English and Portuguese versions of the SAAS are shown in Table 1.

Thirty individuals, the majority of whom were female (56.7%) and with a mean age of 26.0 (SD = 6.2) years, participated in the pretest of the Portuguese version. Most participants completely agreed that the instruction (90.0%), the items (83.3%), and answer options (83.3%) were easy to understand. The average time to complete the instrument was 4.6 (SD = .6) minutes, which is considered a relatively short time. An adequate internal consistency ( $\alpha = .95$ ) was observed based on a data set from 80 individuals (women = 51.2%; mean age = 28.0 [SD = 5.7] years).

## DISCUSSION

The only scale for assessing social physical anxiety available for use in Brazil was the SPAS, but due to its limitations (e.g., focus on body characteristics), the use of the SAAS could be advantageous. Furthermore, as highlighted by the Diagnostic and Statistical Manual of Mental Disorders (5th ed.), if social avoidance is triggered only by beliefs related to appearance, a diagnosis of social anxiety is not justified<sup>2</sup>. Thus, the SAAS can identify more accurately the characteristics of social anxiety due to appearance, since it covers diverse aspects that involve not only the physical appearance but also other areas such as affective relationships, trust, friendship, and opportunities<sup>4</sup>.

For the cross-cultural adaptation of the SAAS to the Portuguese language we used internationally established references<sup>12,13</sup>. The procedures included three independent translations, synthesis of the three translated versions into one version, back-translation, review of the final version by specialists, and pretest. This was achieved by the verification of idiomatic, semantic, conceptual, and cultural equivalence by experts. All these stages are essential for the establishment of a version that can be well understood by respondents in the new cultural reality<sup>12,13</sup>. It is important to clarify that the modifications done did not alter the original theoretical content of the scale.

The availability of the Portuguese SAAS can assist future protocols that aim to investigate social anxiety due to appearance in Brazil. It is worth noting that as a specialist from Portugal collaborated in the cross-cultural adaptation, a pilot study with a sample from Portugal should be carried out before the application of the SAAS in that country. The results of the pretest in Brazil suggested that the SAAS can be an adequate and fast tool to be used in a clinical or epidemiological setting. However, the psychometric properties of this scale (e.g., construct validity and invariance) must be evaluated before using it in a sample.

Regarding the internal consistency, the  $\alpha$  value found was good and this corroborates the international literature<sup>4,6,7</sup>. Radix *et al.*<sup>6</sup> found a value of .97 in a sample of 406 participants from the general population in Germany, while Sahin and Topkaya<sup>7</sup> found a value of .92 in a sample of 2098 Turkish adolescents. These results indicate that SAAS appears to be a consistent measure to assess the construct of interest (i.e., social anxiety due to appearance).

One limitation of the present study is that we did not follow a single protocol for cross-cultural adaptation of the SAAS. However, we used international references to ensure the assessment of consolidated equivalences. Because this is a preliminary study, another limitation is the lack of data on the validity of SAAS for the sample. Finally, we used convenience samples, which limits the generalizability of the results to the general Brazilian population. Thus, we suggest further research to address the limitations of this study.

**Table 1.** Portuguese and English Versions of the Social Appearance Anxiety Scale (SAAS)

English (original)	Portuguese
Social Appearance Anxiety Scale	<i>Escala de Ansiedade Social com a Aparência</i>
-	<i>Instrução: Por favor, indique quão característica é cada afirmação abaixo para você.</i>
-	<i>Opções de resposta:</i>
1 = not at all	<i>1 = nem um pouco</i>
-	<i>2 = ligeiramente</i>
-	<i>3 = um pouco</i>
-	<i>4 = muito</i>
5 = extremely	<i>5 = extremamente</i>
1. I feel comfortable with the way I appear to others.*	<i>1. Eu me sinto confortável com a maneira que eu apareço para os outros.*</i>
2. I feel nervous when having my picture taken.	<i>2. Eu me sinto nervoso(a) quando tiram uma foto minha.</i>
3. I get tense when it is obvious people are looking at me.	<i>3. Eu fico tenso(a) quando é óbvio que as pessoas estão olhando para mim.</i>
4. I am concerned people would not like me because of the way I look.	<i>4. Eu fico preocupado(a) que as pessoas não gostem de mim por causa da minha aparência.</i>
5. I worry that others talk about flaws in my appearance when I am not around.	<i>5. Eu me preocupo que os outros falem sobre as imperfeições da minha aparência quando eu não estou por perto.</i>
6. I am concerned people will find me unappealing because of my appearance.	<i>6. Eu fico preocupado(a) que as pessoas não me achem atraente por causa da minha aparência.</i>
7. I am afraid that people find me unattractive.	<i>7. Eu tenho medo que as pessoas me achem pouco atraente.</i>
8. I worry that my appearance will make life more difficult for me.	<i>8. Eu me preocupo que a minha aparência torne a vida mais difícil para mim.</i>
9. I am concerned that I have missed out on opportunities because of my appearance.	<i>9. Eu fico preocupado(a) que eu tenha perdido oportunidades por causa da minha aparência.</i>
10. I get nervous when talking to people because of the way I look.	<i>10. Eu fico nervoso(a) quando converso com as pessoas por causa da minha aparência.</i>
11. I feel anxious when other people say something about my appearance.	<i>11. Eu me sinto ansioso(a) quando outras pessoas dizem algo sobre minha aparência.</i>
12. I am frequently afraid I would not meet others' standards of how I should look.	<i>12. Eu frequentemente tenho medo de não atender aos padrões dos outros de como eu devo parecer (fisicamente).</i>
13. I worry people will judge the way I look negatively.	<i>13. Eu me preocupo que as pessoas julguem negativamente a minha aparência.</i>
14. I am uncomfortable when I think others are noticing flaws in my appearance.	<i>14. Eu fico desconfortável quando penso que os outros estão percebendo imperfeições na minha aparência.</i>
15. I worry that a romantic partner will/would leave me because of my appearance.	<i>15. Eu me preocupo que um companheiro(a)/parceiro(a) me deixe por causa da minha aparência.</i>
16. I am concerned that people think I am not good looking.	<i>16. Eu fico preocupado(a) que as pessoas pensem que eu não tenho uma boa aparência.</i>

\* Item with reverse-coded.

## CONCLUSION

The idiomatic, semantic, conceptual, and cultural equivalences were attested in the Portuguese version of the SAAS, indicating that this tool is adequate to be used in Brazilian protocols – after confirming its psychometric properties – for tracking symptoms characteristic of social anxiety due to appearance. Furthermore, a good alpha value of the scale was found, showing that the SAAS appears to be consistent; however, this should be confirmed and evaluated together with validity estimates in further studies.

## INDIVIDUAL CONTRIBUTIONS

**Giovanna Soler Donofre** – Participated in the theoretical development of the study, data collection and wrote the first draft of the manuscript.

**Juliana Alvares Duarte Bonini Campos** – Participated in the theoretical development of the study and critically revised the manuscript.

**João Marôco** – Participated in the theoretical development of the study and critically revised the manuscript.

**Wanderson Roberto da Silva** – Participated in the theoretical development of the study, data collection, and

critically revised the manuscript, taking the lead in the research.

## CONFLICT OF INTERESTS

The authors have no conflict of interest to declare.

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