



## TRANSCULTURAL VALIDATION OF THE PATIENT EVALUATION OF EMOTIONAL COMFORT EXPERIENCED INSTRUMENT TO BRAZILIAN PORTUGUESE

### VALIDAÇÃO TRANSCULTURAL PARA A LÍNGUA PORTUGUESA BRASILEIRA DO INSTRUMENTO PATIENT EVALUATION OF EMOTIONAL COMFORT EXPERIENCED

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#### RESUMO

**Objetivo:** Realizar a adaptação transcultural do instrumento *Patient Evaluation of Emotional Comfort Experienced* (PEECE) para a língua portuguesa brasileira. **Método:** A adaptação transcultural do instrumento seguiu cinco etapas: tradução, síntese das traduções, retrotradução, avaliação por comitê de especialistas e teste da versão com pacientes. A pesquisa foi aprovada pelo Comitê de Ética em Pesquisa sob o parecer nº 6.456.631. **Resultados:** Foram finalizadas as etapas de 1 a 4 (tradução, síntese das traduções, retrotradução e comitê de especialistas) propostas, obtendo-se bons resultados. O comitê de especialistas obteve concordância quanto às equivalências semântica, idiomática, experiencial e conceitual de 83,3% a 100% e o índice de validade de conteúdo foi igual a 100% para a relevância teórica, pertinência e clareza. A avaliação dos pacientes (etapa 5) revelou que 100% deles consideraram a aparência geral (estrutura, organização dos itens e suas respostas) como boa ou ótima e 96,7% classificaram a facilidade de leitura como ótima. **Conclusão:** A versão obtida após a avaliação do comitê de especialistas demonstrou equivalência conceitual com o instrumento original.

**Descritores:** Conforto do Paciente; Enfermagem; Estudo de Validação; Comparação Transcultural.

#### ABSTRACT

**Objective:** To transculturally adapt the Patient Evaluation of Emotional Comfort Experienced (PEECE) instrument to Brazilian Portuguese. **Method:** The transcultural adaptation followed five stages: translation, synthesis of the translations, back-translation, assessment by an experts' committee and testing the version with patients. The research was approved by a Research Ethics Committee under Opinion No. 6,456,631. **Results:** All stages proposed (1 to 4) were completed (Translation, Synthesis of the translations, Back-translation and Experts' committee), obtaining good results. The experts' committee reached 83.3%-100% agreement as for semantic, idiomatic, experiential and conceptual equivalence and the content validity index was 100% for theoretical relevance, pertinence and clarity. The assessment by the patients (Stage 5) revealed that 100% of them considered the overall appearance (structure, organization of the items and their answers) as good or optimal and that 96.7% rated readability as optimal. **Conclusion:** The version obtained after the assessment by the experts' committee showed conceptual equivalence to the original instrument.

**Descriptors:** Patient Comfort; Nursing; Validation Study; Transcultural Comparison.

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#### What is already known:

- Comfort is inherent and essential to Nursing care for the patients' needs, and standardized assessment tools can assist health professionals in better understanding this phenomenon.
- Patient Evaluation of Emotional Comfort Experienced (PEECE) is an easy to answer and understand instrument that measures emotional comfort and presents high internal consistency.
- It is necessary to have a simple and validated instrument to assess emotional comfort as part of the Nursing care provided to surgical patients.

#### What this article adds:

- The transcultural adaptation of the PEECE instrument obtained an excellent agreement index among experts and patients.
- PEECE stands out for its usability, which favors employing it in various Nursing scenarios, thus contributing as a simple and quick tool to assess comfort in care provision.

## INTRODUCTION

The concept of “comfort” can be considered universal and is the primary objective of many interventions in the health area, especially in Nursing. Discussed since Florence Nightingale's papers, it was only at the end of the 20<sup>th</sup> century that its theoretical and operational definition was presented in Kolcaba's Theory of Comfort<sup>(1-3)</sup>.

According to Kolcaba's Theory of Comfort, it is multidimensional and involves the physical, spiritual, environmental, social and psychological dimensions, representing a basic human need wished for in all life stages<sup>(3)</sup>.

In general lines, Kolcaba's Theory of Comfort has served as the basis for various research studies in the area (even Brazilian surveys about the theme) and is focused on holistic comfort; in turn, other researchers<sup>(4-5)</sup> have identified emotional comfort as a patient's psychosocial experience, defined as a psychological state that involves positive feelings, relaxation states, good mood and well-being sensations. It can be inferred that an emotionally comfortable person presents more recovery chances due to their greater engagement and willingness to improve their health status<sup>(4)</sup>.

In this sense, the Patient Evaluation of Emotional Comfort Experienced (PEECE) instrument was developed by Australian researchers, has 12 items that are easy to answer and understand 12 and measure emotional comfort, understood as a subjective well-being state, and was tested in patients hospitalized in intensive care<sup>(4)</sup> and subsequently applied to assess comfort both in trauma patients<sup>(6)</sup> and in Nursing students<sup>(7)</sup>.

PEECE was developed in three stages. The construct was prepared based on studies about the patients' experiences with emotional care and emotional comfort and on another study that developed the theory about the patients' psychosocial experience (Phase 1); face and content validation through a multidisciplinary experts' panel (Phase 2); and the construct's clarity, use validity, reliability, internal structure and validity assessment (Phase 3). The results showed that the patients found PEECE easy to use and to understand, with high internal consistency<sup>(4)</sup>.

Although Nursing seeks to ensure comfort and well-being among the patients treated by means of effective and safe interventions, it not always resorts to an objective evaluation as for the patients' interpretations and perceptions about comfort. Eventually, the absence of simplified and validated tools available for Nursing assessments contributes to this aspect.

Consequently, and given the need for a simple and validated instrument to assess emotional comfort as part of the Nursing care provided to surgical patients, this study intends to transculturally adapt the PEECE instrument to Bra-

zilian Portuguese and to preserve its semantic, idiomatic, experiential and conceptual equivalence.

## METHOD

This is a transcultural validation study; in other words, the process to translate and culturally adapt the PEECE instrument preserving equivalence in grammatical and vocabulary terms, in addition to valuing the social and cultural structure of the language for which the adaptation is intended<sup>(8-9)</sup>.

Due authorization to transculturally adapt the PEECE scale was obtained by contacting one of the study authors via e-mail.

In addition to respecting the guidelines for creating measuring instruments<sup>(10)</sup>, the transcultural validation process used in this study followed the stages recommended by Beaton et al.<sup>(11)</sup>: **Stage I - Translation:** it was in charge of two experienced and independent translators that were fluent in English (language in which the original version is written), and with Brazilian Portuguese as mother tongue. One of the translators (T1) was experienced in the health area and the other (T2) was alien to any knowledge in the health field. **Stage II - Synthesis of the translations:** it was in charge of two female nurses that are independent researchers, Brazilian natives and with experience in the Nursing area, both proficient in English. Each participant was given a copy of the translations and of the instrument's original version; at the end, a combined version was obtained with items from both translations. **Stage III - Back-translation:** it was done by translators fluent in the original language of the instrument and in Brazilian Portuguese. Thus, the synthesized and reviewed version of the instrument for the Portuguese language obtained in Stage II was back-translated into the original language seeking to preserve its conceptual equivalence but not verbatim equivalence with the original document. The back-translated versions (BT1 and BT2) were finally obtained. **Stage IV - Experts' committee:** it was conducted to verify semantic equivalence (preserving the same grammatical sense), idiomatic equivalence (translating idiomatic expressions properly), experiential equivalence (preserving equivalence as for the content addressed considering Brazilian cultural aspects) and conceptual equivalence (preserving the same meaning in the different languages) across the original version, the one translated into Brazilian Portuguese and the back-translated document.

In order to assess equivalence across the PEECE items, the experts were given the instrument with three answer options: “Equivalent”, “Doubtful” and “Not equivalent”. Theoretical relevance (the item is related to the objective), practical pertinence (the item is important and assesses

the concept of interest) and clarity (the item is understandable and written in an organized way) were considered for content assessment. For this evaluation, the experts had four Likert-type answer options for each PEECE item: 1 (“Not relevant”, “Pertinent” or “Clear”); 2 (“The item needs major review”); 3 (“The item needs minor review”) and 4 (“Relevant”, “Pertinent” or “Clear”)<sup>(12)</sup>.

The experts were emailed an individual invitation letter stating the voluntary nature of their participation and, in case they agreed to, they had to state so by signing a Free and Informed Consent Form (FICF). After due consent, they were sent an e-form to assess the PEECE items according to linguistic equivalences and to content validation (relevance, pertinence and clarity), in addition to a spreadsheet with the original, translated (T1 and T2) and synthesis (T1-T2) versions and both back-translations (BT1 and BT2).

The experts' panel was comprised by six professionals, meeting the proposal set forth in Almanasreh, Moles and Chen<sup>(13)</sup>, who recommend from five to 10 professionals to assess instruments. The experts were selected through the “snowball” technique, with the first participant indicating potential new ones that would meet the inclusion criteria: Higher Education in the health area with care experience and specialized in the pain, palliative care, holistic or peri-operative areas; proficiency in Portuguese and English; and knowledge about the process to transculturally adapt measuring instruments for psychosocial variables. The professionals excluded from the study were those that failed to return the instrument before the deadline previously agreed upon with the researchers. The final PEECE version was submitted to the authors of the instrument.

Finally, **Stage V – Pre-final version test** was implemented to apply the instrument to a convenience sample comprised by 31 adult surgical patients in the post-operative period after elective, urgency or emergency procedures, in any surgical specialty and having been subjected to any type of anesthesia (general, sedation, nerve blocking, etc.). The patients assessed the instrument's overall appearance (structure, organization of the items and their answers), readability (font size) and comprehension (understandability of the filling-in and items' instructions) through a Likert scale from 1 to 5. The suggestions made in this stage were analyzed and those that were considered pertinent and did not jeopardize the content were incorporated to the instrument.

## Data analysis

The data were analyzed by means of descriptive statistics (mean value, standard deviation and minimum/maximum values).

The equivalence measures were assessed based on the agreement percentage calculations (Number of positive answers / Total number of answers \* 100), according to the evaluation object. The Content Validity Index (CVI) was used to assess the instrument's content (Number of ‘3’ or ‘4’ answers / Total number of answers) and all items with CVI values  $\leq 0.75$  were reviewed<sup>(12)</sup>.

Any and all suggestions made by the experts in the stages to assess semantic, idiomatic, experiential and conceptual equivalence were qualitatively evaluated by five authors (their initials were omitted during the review process) and incorporated to the instrument if more than 50% considered them suitable.

## Ethical aspects

The research project was approved by the Research Ethics Committee of the Nursing School belonging to Universidade de São Paulo and by the co-participating institution under Opinion No. 6,456,631. All the research participants were duly informed about the study objectives, benefits, risks and anonymity guarantees, in addition to the voluntary nature of their participation, stating their consent to take part in the study by signing an FICF.

## RESULTS

The Portuguese translation of the instrument (Stage I) produced by two independent translators was used to generate a synthesis version (Stage II). This version written by two experienced and independent female nurses was back-translated into English (Stage III), also by two translators that were fluent in English and Brazilian Portuguese native speakers (BT1 and BT2).

The original instrument and the synthesis and back-translated versions are presented in Table 1.

The participants in Stage IV were six nurses: 5 (83.3%) female and 1 (16.7%) male; with a mean age of  $41.3 \pm 7.8$  years old and varying from 35 to 57;  $17.5 \pm 7.8$  years of professional experience with a range from 8 to 32; and working in different performance areas, such as surgical center and anesthetic recovery, intensive and pain care, Oncology and Palliative Care.

The agreement analysis regarding the equivalences yielded high values. Semantic equivalence varied between 83.3% and 100%. High agreement levels were observed for idiomatic equivalence, except in the Guidance for users and Patient hospitalization locus items. In the case of experiential equivalence, the lowest agreement index was found in the Guidance for users, Answer options and Hospitalization locus items (Table 2).

In the items with 50.0% agreement, the experts presented reasons and suggestions, generally regarding aspects related to the aesthetics or to writing adjustments in the items, for example: in **Guidance for users** - “asking the person to put an X instead of  $\surd$ ”; in **Answer options** - “Not very” might be ‘Um pouco’ or ‘Muito pouco’; changing ‘Nada’ to ‘Não’; and choosing “Totalmente” instead of ‘Extremamente’, as it is easier to understand; and in **Hospitalization locus** - “adding Ambulatório, as it is a broader context than Hospital Dia”; and “writing Hospital Dia e/ou Ambulatório”.

In general, the experts' assessment revealed that the mean values corresponding to semantic (99.0%), idiomatic (93.5%), experiential (93.0%) and conceptual (100%) equivalence were excellent (Table 2).

A CVI of 1 was reached in all items from the PEECE instrument (Table 3).

Stage 5 consisted in having the patients assess the instrument. Most of the patients included were male (51.6%), with a mean age of  $43.4 \pm 15.6$  years old and mostly subjected to elective surgeries (64.5%), mainly gastrointestinal (41.9%) and orthopedic (32.2%) procedures. In the PEECE instrument assessment regarding overall appearance (structure, organization of the items and their answers), 100% of them considered it as good or optimal; as for readability, 96.7% of the participants rated it as optimal or good; and

93.5% of the patients classified its understandability as optimal or good.

Thus, the final version of the PEECE instrument was

finished, translated and transculturally validated for Brazilian Portuguese.

**Table 1 - Description of the original Patient Evaluation of Emotional Comfort Experienced (PEECE) instrument and of the synthesis and back-translated versions. São Paulo, SP, Brazil, 2025**

PEECE INSTRUMENT	Original	T1-T2 synthesis	BT1	BT2
<b>TITLE</b>	Patient evaluation of emotional comfort experienced (PEECE)	Avaliação do Paciente da Experiência de conforto emocional (PEECE)	Patient evaluation of emotional comfort experienced (PEECE)	Patient evaluation of emotional comfort experienced (PEECE)
<b>GUIDANCE FOR USERS</b>	Think about how you are feeling emotionally right now. Place a tick ✓ in the box that best represents your feelings RIGHT NOW. If you would like to share comments on any of the statements, please do so in the comment box provided.	Pense em como você está se sentindo emocionalmente neste momento. Marque com um certo ✓ a caixa/item que melhor representa os seus sentimentos AGORA. Se você deseja compartilhar comentários sobre alguma das afirmações, por favor, faça-o na seção indicada.	Think about how you are feeling emotionally right now. Tick the box/item with a ✓ that best represents your feelings NOW. If you would like to share comments on any of the statements, please, do so in the indicated section.	Think about how you are emotionally feeling at this moment. Check (✓) the box that best represents your feelings RIGHT NOW. If you wish to share comments about any of the statements, please do so in the indicated section.
<b>ANSWER OPTIONS</b>	Extremely; Very; Somewhat; Very little; Not at all; Comments.	Extremamente; Muito; De certa forma; Pouco; Nada; Comentários.	Extremely; Very; To a certain extent; Not very; Not at all; Comments.	Extremely; A lot; In a certain way; A little; Nothing; Comments.
<b>Item 1</b>	I feel relaxed	Eu me sinto relaxado	I feel relaxed	I feel relaxed
<b>Item 2</b>	I feel valued	Eu me sinto valorizado	I feel appreciated	I feel valuable
<b>Item 3</b>	I feel safe	Eu me sinto seguro	I feel safe	I feel safe
<b>Item 4</b>	I feel calm	Eu me sinto calmo	I feel calm	I feel calm
<b>Item 5</b>	I feel cared for	Eu me sinto cuidado	I feel cared for	I feel cared for
<b>Item 6</b>	I feel at ease	Eu me sinto à vontade	I feel at ease	I feel at ease
<b>Item 7</b>	I feel like smiling	Eu me sinto com vontade de sorrir	I feel like smiling	I feel like smiling
<b>Item 8</b>	I feel energised	Eu me sinto energizado	I feel energized	I feel energized
<b>Item 9</b>	I feel content	Eu me sinto satisfeito	I feel satisfied	I feel satisfied
<b>Item 10</b>	I feel in control	Eu me sinto no controle	I feel in control	I feel in control
<b>Item 11</b>	I feel informed	Eu me sinto informado	I feel informed	I feel informed
<b>Item 12</b>	I feel thankful	Eu me sinto grato	I feel grateful	I feel grateful
<b>Questions about personal situation</b>				
<b>Item 13</b>	In what year were you born?	Em qual ano você nasceu?	In what year were you born?	In which year were you born?
<b>Item 14</b>	In which country were you born?	Em qual país você nasceu?	In which country were you born?	In which country were you born?
<b>Item 15</b>	What is your gender? (Tick one box): -Male; -Female.	Qual seu sexo biológico? (marque um item): -masculino -feminino	What is your gender? (Tick one item): - Male -Female	What is your gender? (Check one): -Male -Female
<b>Item 16</b>	Where are you right now? (Tick one box): -Hospital ward; -Hospital Outpatients; -Home; -Other; -Please describe:	Onde você está neste exato momento? (Marque um item): -Enfermaria -Hospital-dia -Em casa -Outros Por favor, descreva:	Where are you at this exact moment? (Tick one item): -Infirmary -Hospital -At home -Others Please, describe:	Where are you at this exact moment? (Check one): -Ward -Day hospital -At home -Other Please, describe:
<b>Item 17</b>	How many times have you been admitted to hospital over the past year?	Quantas vezes você foi internado no hospital no último ano?	How many times have you been hospitalized in the last year?	How many times have you been admitted to the hospital in the last year?
<b>Item 18</b>	What is your main health problem right now?	Qual é o seu principal problema de saúde neste momento?	What is your main health issue at the moment?	What is your main health at the moment?
<b>Item 19</b>	What treatment (s) are you receiving for this health problem at present?	Qual(is) o(s) tratamento(s) que você está recebendo para esse problema de saúde no momento?	What treatment(s) are you receiving for this health issue at the moment?	What treatment(s) are you currently receiving for this problem?
	If there is anything else which you would like to add, please use the space below:	Se houver algo mais que você gostaria de adicionar, utilize o espaço abaixo:	If there is something else you would like to add, please use the space below:	If there is anything else you would like to add, please use the space below:

Source: the authors, 2025.

**Table 2** - Agreement percentages for semantic, idiomatic, experiential and conceptual equivalence among the experts from the committee. São Paulo, SP, Brazil, 2025

Items	Equivalence			
	Semantic (%)	Idiomatic (%)	Experiential (%)	Conceptual (%)
<b>Title:</b> Avaliação do paciente da experiência de conforto emocional (PEECE)	100	83.3	100	100
<b>Guidance for users:</b> Pense em como você está se sentindo neste momento. Marque com certo ✓ a caixa/item que melhor representa seus sentimentos AGORA. Se você desejar compartilhar comentários sobre alguma das afirmações, por favor, faça-o na seção indicada	100	50.0	50.0	100
<b>Answer options:</b> Extremamente; Muito; De certa forma; Pouco; Nada; Comentários.	100	100	50.0	100
Eu me sinto relaxado	100	100	100	100
Eu me sinto valorizado	100	100	100	100
Eu me sinto seguro	100	100	100	100
Eu me sinto calmo	100	100	100	100
Eu me sinto cuidado	100	100	100	100
Eu me sinto à vontade	100	100	100	100
Eu me sinto com vontade de sorrir	83.3	83.3	100	100
Eu me sinto energizado	100	100	100	100
Eu me sinto satisfeito	100	100	100	100
Eu me sinto no controle	100	100	100	100
Eu me sinto informado	100	100	100	100
Eu me sinto grato	100	100	100	100
Em qual ano você nasceu?	100	100	100	100
Em qual país você nasceu?	100	100	100	100
Qual seu sexo biológico? (marque um item): -masculino -feminino	100	100	100	100
Onde você está neste exato momento? (Marque um item) -Enfermaria -Hospital-dia -Em casa -Outros Por favor, descreva:	100	50.0	50.0	100
Quantas vezes você foi internado no hospital no último ano?	100	100	100	100
Qual é o seu principal problema de saúde neste momento?	100	100	100	100
Qual(is) o(s) tratamento(s) que você está recebendo para esse problema de saúde no momento?	100	100	100	100
Se houver algo mais que você gostaria de adicionar, utilize o espaço abaixo:	100	83.3	100	100
<b>OVERALL MEAN</b>	<b>99</b>	<b>93.5</b>	<b>93.0</b>	<b>100</b>

Source: the authors, 2025.

## DISCUSSION

Comfort is both inherent and essential to care, and standardized assessment tools can assist health professionals in better understanding the phenomenon, guiding the assistance provided according to the patients' needs. Comfort assessments have been used in various health contexts and with different populations, resorting to scales to measure health care actions and manage the needs involving health professionals and patients and their family members alike<sup>(14)</sup>.

The current study transculturally adapted the PEECE instrument and obtained an excellent agreement index among specialists and patients, with most of the suggestions related to specific writing style issues, which were mostly incorporated into the translated instrument. PEECE stands out for being easy to use, which favors employing it in various scenarios.

The PEECE instrument was originally developed through a face and content validation process in charge of a multidisciplinary experts' panel, followed by a pilot test with 57 patients to verify its clarity and viability. It was subsequently applied to a sample comprised by 317 patients admitted to a public hospital specialized in critical care from Western Australia. In the results, PEECE presented high in-

ternal consistency, reliability and validity, proving feasible and reliable to be used with hospitalized individuals and outpatients. The authors also recommend that the tool should be tested in different populations and care settings<sup>(4)</sup>. In this sense, the transcultural validation was performed in a setting that included its application to Brazilian surgical patients.

In a literature review<sup>(15)</sup> that explored the psychometric aspects corresponding to a number of instruments made available between 1990 and 2015, it was noticed that their methodological quality was moderate and that their usefulness was scarcely studied in the manuscripts. Thus, the flaws found in the various instruments led the authors to recommend the "Comfort Scale", "General Comfort Questionnaire" instruments and their adaptations ("Psychosocial Comfort Scale" and "Incomfort des Patients de Reanimation") with due reservations<sup>(15)</sup>.

The General Comfort Questionnaire (GCQ) is among the most frequently used comfort assessment scales. This self-applicable instrument is comprised by 48 items, is holistic and encompasses the physical, psychospiritual, sociocultural and environmental dimensions, in addition to seeking to indicate the care quality offered based on the health conditions considered. GCQ was translated and validated to be used in the Brazilian context following the stages proposed

by Beaton et al.<sup>(11)</sup>, tested in chronic renal patients undergoing hemodialysis<sup>(14)</sup> and assessed by an experts' committee as for its clarity, comprehension, relevance and association with comfort<sup>(16)</sup>. Subsequently, the authors applied the GCQ

Brazilian version to 260 chronic renal patients undergoing hemodialysis to perform an exploratory and reliability analysis of its items, with favorable results to consider CQG as valid and reliable to measure comfort in these patients<sup>(17)</sup>.

**Table 3 - Content Validity Index (CVI) by item assessed by the experts' committee. São Paulo, SP, Brazil, 2025**

Items	Theoretical relevance	Practical relevance	Clarity
<b>Title:</b> Avaliação Do Paciente Da Experiência De Conforto Emocional (PEECE)	1	1	1
<b>Guidance for users:</b> Pense em como você está se sentindo neste momento. Marque com certo √ a caixa/item que melhor representa seus sentimentos AGORA. Se você desejar compartilhar comentários sobre alguma das afirmações, por favor, faça-o na seção indicada	1	1	1
<b>Answer options:</b> Extremamente; Muito; De certa forma; Pouco; Nada; Comentários.	1	1	1
Eu me sinto relaxado	1	1	1
Eu me sinto valorizado	1	1	1
Eu me sinto seguro	1	1	1
Eu me sinto calmo	1	1	1
Eu me sinto cuidado	1	1	1
Eu me sinto à vontade	1	1	1
Eu me sinto com vontade de sorrir	1	1	1
Eu me sinto energizado	1	1	1
Eu me sinto satisfeito	1	1	1
Eu me sinto no controle	1	1	1
Eu me sinto informado	1	1	1
Eu me sinto grato	1	1	1
Em qual ano você nasceu?	1	1	1
Em qual país você nasceu?	1	1	1
Qual seu sexo biológico? (marque um item): -masculino -feminino	1	1	1
Onde você está neste exato momento? (Marque um item) -Enfermaria -Hospital-dia -Em casa -Outros Por favor, descreva:	1	1	1
Quantas vezes você foi internado no hospital no último ano?	1	1	1
Qual é o seu principal problema de saúde neste momento?	1	1	1
Qual(is) o(s) tratamento(s) que você está recebendo para esse problema de saúde no momento?	1	1	1
Se houver algo mais que você gostaria de adicionar, utilize o espaço abaixo:	1	1	1
<b>OVERALL MEAN</b>	1	1	1

Source: the authors, 2025.

Thus, when compared to the other already existing comfort tools, PEECE's greater applicability can be highlighted, as well as the methodological path followed since its creation, which is more in line with the psychometric standards currently accepted for devising instruments, in addition to having already been tested in different clinical settings.

Finally, it is worth noting aspects related to how the validation process was developed, which can eventually be understood as limitations. For example: aspects related to the back-translation process into English were observed as for the idiomatic equivalence of words such as thankful, valued and content, which although meaning the same in Portuguese, resulted in different terms from those found in the original PEECE version when back-translated. In the writing corresponding to the Guidance for users and considering idiomatic and experiential equivalence, using a different writing structure than the usual one in the country was responsible for the low agreement reached, which again did not affect the comprehension process or use of the instrument. Likewise, this bias is repeated in the "Where are you now?" question, as the answer options were limited for the country's health environment context.

Therefore, new research studies testing the instrument in new health environments are recommended, in addition to future psychometric studies employing other techniques that

may add to the currently existing results and contribute new validity evidence.

## CONCLUSION

The current study concluded that an excellent agreement index among the experts was reached in the transcultural validation stages as for theoretical relevance, pertinence and clarity, in addition to semantic, idiomatic, experiential and conceptual equivalence and to understandability among the surgical patients. The results showed that the translated and validated instrument showed high similarity and equivalence levels when compared to the original content, with no significant conceptual or grammatical disparities. PEECE can constitute a simple and quick assessment tool for comfort in Nursing care provision, contributing to the Nursing practice. Thus, it is suggested to apply it and test its properties among patients in different health care contexts.

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## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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All authors are responsible for the textual writing and critical review of the intellectual content, for the final published version, and for all ethical, legal, and scientific aspects related to the accuracy and integrity of the study.



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