Translation and cross-cultural adaptation of Pfeiffer's Short Portable Mental Status Questionnaire (SPMSQ) for brazilians older adults

Fernanda Cury Martins Teigão[1]
Auristela Duarte de Lima Moser[1]
Javier Jerez-Roig[2]

Abstract

Objective: Culturally adapt Pfeiffer's Short Portable Mental Status Questionnaire (SPMSQ) for use in Brazil. Methods: The process involved the following phases: initial translation; synthesis of translations; back-translation; review by a committee of experts in the field to analyze the apparent and content validity, considering the semantic, idiomatic, cultural, conceptual and clarity equivalences and, finally, a pre-test with the target population. *Results:* In the initial translation and in the back-translation, there were disagreements between the translators, in items 19 and 7 respectively, which were later discussed and reconciled by the committee. The expert committee suggested changes from the layout to adjustments to technical terms to facilitate the applicability of professionals and to make the final instrument clearer and more understandable to the target population. In the pre-test, 36.6% of those evaluated showed difficulties in understanding an item in the questionnaire; the item was replaced, the scale was reapplied obtaining 100% understanding. *Conclusion:* The study demonstrated that the Brazilian version of the SPMSQ established as a Brief Cognitive Capacity Scale was cross-culturally adapted, with its items considered clear and understandable by specialists and the target population. The adapted instrument contributes because it is a brief assessment tool available to track the cognitive ability of old people. The analysis of psychometric properties is recommended, establishing the degree of validity and reliability, which is already under development by the authors of this study.

Keywords: Translating. Cross-Cultural Comparison. Health of the Elderly. Mental Status and Dementia Tests. Cognitive Aging. Cross-Cultural Studies.

[1] Pontifícia Universidade Católica do Paraná, Programa de Pós-Graduação em Tecnologia da Saúde. Curitiba, PR, Brasil.

[2] Universitat de Vic - Universitat Central de Catalunya, Facultat de Ciències de la Salut i el Benestar. Catalunya, España.

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Correspondence
Fernanda Cury Martins Teigão
fernandateigao@hotmail.com

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INTRODUCTION

Among the functional losses that affect old people, cognitive losses are in evidence, increasing the vulnerability of this population. Dementia can lead to physical dependence[1], being an important risk factor for the mortality of this public. The number of individuals living with dementia worldwide was estimated at 35.6 million in 2010 and the literature assumes that this number should almost double every 20 years, reaching 65.7 million in 2030[2]. These data call on governments and policy makers to make dementia a global public health priority.

Cognitive decline increases dependence, that is, the inability to perform activities of daily living, influencing their functionality and quality of life[3], which require constant and long-term multidisciplinary monitoring. For this follow-up, evaluations are necessary, ranging from the initial tracking of the problem to the analysis of the results and treatment applied.

In this context, the Short Portable Mental Status Questionnaire (SPMSQ) by Pfeiffer[4] stands out, an instrument of cognitive screening and diagnostic support for dementia, designed specifically for old people. This test is easy to administer, as it does not require any specific material for its completion and can be applied by any health professional, in addition to the fact that it has good sensitivity (S=86.2%) and specificity (E=99%) in its original English version[5-6].

There are several cognitive assessment instruments[7], many of which have already been translated and culturally adapted for Brazil. Although widely used in clinical practice and research with old people, some of them, in their original version, were not specifically created for this audience. Some end up restricting the participation of old people with motor impairment and visual deficits that are not corrected when they request reading, sentence writing and drawing reproduction. There are tests that need third parties, such as caregivers and family members to complete them, and there are very extensive instruments. According to Polit[8], the longer the instrument, the more tiring it can be for the interviewee.

Considering the limited time of primary care consultations, it becomes necessary to validate diagnostic support instruments that are easy and quick to apply, in order to reduce the number of patients with cognitive problems diagnosed late, delaying or even preventing early treatment and possible delay in disease progression[6].

The SPMSQ is a short scale with ten questions, considered a support tool for the diagnosis and monitoring of therapeutic measures and the evolution or not of the cognitive deficit, which assesses memory, temporal orientation, mathematical capacity and information on facts and everyday skills[4-6,9]. The scale does not need third parties for its completion and does not exclude patients with physical and visual impairment, in addition to having wide international use.

A study recently conducted in Israel[10] analyzed through SPMSQ the impact of sedative medications on the cognition of hospitalized old people who had a normal cognitive status at the time of admission. In another recent study carried out in Germany by Schönstein et al.[11], the instrument was used to stratify the risk of older patients in the emergency department. Several studies still use it as a screening for inclusion and exclusion criteria in research, such as that of Sri-on et al.[12], carried out in Thailand.

Such an instrument, despite being widely cited in the international scientific literature[6-11] and having versions in other languages[6,11,13,14], has not yet been translated and culturally adapted to the Brazilian Portuguese language; the versions used by SPMSQ in Brazil correspond to free adaptations or to its Spanish version[9]. This hinders its use by researchers and professionals in clinical practice, decreasing the availability of valid and reliable tools to support the identification of cognitive conditions and their degree of impairment in old people.

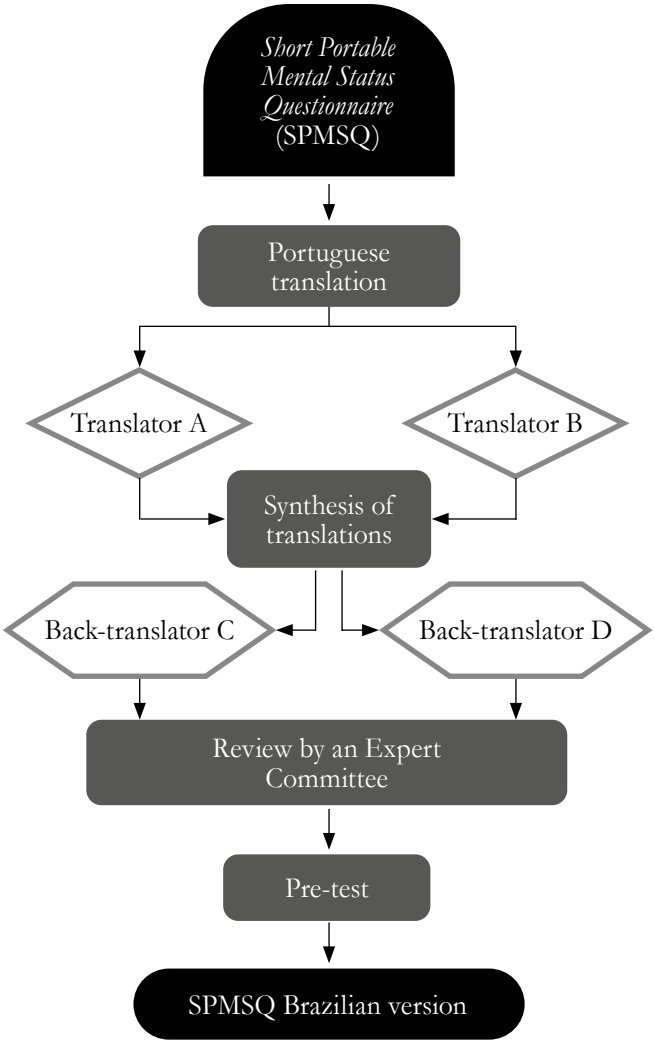
The cross-cultural adaptation of instruments promotes cultural exchange between different sociocultural realities, seeking to follow a series of methodological care and severity, ensuring that the measurement aspects of the instrument are reliable and not distorted to the socio-cultural reality to which it is intended to adapt[15,16]. Coluci et al.[17] and Knaut

et al.[18] report that the use of a foreign instrument without its proper adaptation may jeopardize the validity and precision of the results obtained in the evaluations. Thus, the translation of a scale must be clear in its language, remaining equivalent in terms of its cultural and social concepts[17-18].

The adapted instrument will contribute to the realization of robust cross-cultural studies, for comparison between different contexts and production of a more dense and significant body of knowledge19. To meet this need, the objective of this study was to describe the process of cross-cultural adaptation, with the apparent and content validation of Pfeiffer's SPMSQ for Brazilian old people.

METHOD

The cross-cultural adaptation of Pfeiffer's SPMSQ met the methodological recommendations widely accepted and recommended in the international literature, which suggest the following steps: translation; synthesis of translations, back-translation, analysis by a committee of experts and pre-test of the adapted version[15,18]. The study was carried out from June to December 2019, with old people both from Long Term Care Facilities for old people (LTCF) and from the community in the city of Curitiba (PR, Brazil). Figure 1 demonstrates, through a flowchart, the process of cross-cultural adaptation.



Source: Author (based on the flowchart by Beaton et al.[15]).

Figure 1. Flowchart of the process of translation and cross-cultural adaptation. Curitiba, PR, 2020.

Phase I – Translation: two bilingual translators participated in the first phase, having Portuguese as their mother tongue, that is, two Brazilians fluent in English who carried out two translations independently; only one was aware of the purpose of the study.

Phase II – Synthesis of the translations: the translations were compared and analyzed by a review committee, composed of the two translators, the researcher and the study supervisor. In this committee, the item by item differences between the versions were discussed in order to synthesize (consensus) the two translations forming the first Portuguese version of the instrument.

Phase III – Back-translation: the instrument was translated back into English by two other translators, native Americans who mastered Portuguese. They performed the translation independently, were unaware of the purpose of the study and did not have access to the original questionnaire.

Phase IV – Analysis by a committee of experts (apparent and content validity): the committee was composed of a multidisciplinary team within the criteria adapted from Fehring[20]. There is no consensus in the literature as to the criteria for selecting experts, but Fehring establishes parameters for selecting experts to perform validation of nursing diagnoses. Although their criteria were created for another purpose, they have been widely used in validation studies and adapted when necessary to the research object, providing a basis for analyzing the level of practical experience, knowledge and skill of each professional related to the topic. Therefore, to standardize the eligibility criteria of the specialists in this study, an adaptation of the Fehring criteria was used, namely: (i) a minimum of five years of clinical experience in the field of Geriatrics/Gerontology; (ii) *lato sensu* or *stricto sensu* specialization in Geriatrics/Gerontology; (iii) research with publications related to the theme of aging.

The professionals were invited to voluntarily collaborate with the study and a brief explanation was made about the research and its objectives. After meeting the adapted criteria of Fehring[20], the committee consisted of two doctors, two physiotherapists, two psychologists and a social worker. The objective of this stage was to analyze the clarity of the questions for ease of understanding of the target population, considering the semantic, idiomatic, conceptual and cultural equivalences, as well as the appearance of the instrument and the technical terms of access to the professional.

The experts evaluated the translated instrument using a Likert scale from 1 to 4 points: "not equivalent, little equivalent, quite equivalent and totally equivalent" for each item of the equivalences and "not clear, little clear, quite clear and totally clear" for the clarity of content. For items classified as 1 and 2, justification was requested; to this end, each specialist was given a specific document to record this analysis containing guidelines for its performance and spaces for observations, pointing out doubts and suggestions for adaptation.

The experts' proposed changes were analyzed, reviewed, discussed and reconciled to ensure the best fit for Brazilian culture. A consensus was reached in the expert committee and a pre-test version was developed[15,20].

Phase V – Pre-test: in this stage, the pre-final version was tested on 30 people aged 60 years or older, in the city of Curitiba (PR), in order to verify the content clarity. The sample size for this stage was defined according to the recommendations proposed by Beaton[15] and Reichenheim and Moraes[16]. We sought to cover men and women of different age groups, institutionalized and non-institutionalized and with different educational levels, as did Pfeiffer in the construction of the original instrument.

The SPMSQ instrument consists of ten questions, which assess memory, temporal orientation, mathematical capacity and daily information; its score ranges from 0 to 10, considering the sum of the evaluated errors. It allows the classification of the individual in preserved cognitive capacity, mild, moderate or severe cognitive impairment, taking into account the education level of the evaluated[6,9].

At this stage, the old person was not assessed regarding their cognitive ability, but their understanding in relation to the ten questions. The items classified with more than 10% of "non-understanding" were reformulated and replaced

by equivalent alternatives, so that the instrument's basic concept and structure were not altered, and then tested again in another group of participants with the same characteristics. Thus, the Portuguese version of Pfeiffer's SPMSQ was only defined when at least 90% of its items were considered clear and understandable[16,17].

The study was carried out after review and approval by the Research Ethics Committee of the Pontifical Catholic University of Paraná (nº 3,526,745). All participants, including old people and specialists, were informed about the objectives of the study and signed the Informed Consent Form.

RESULTS

Thirty old people were evaluated in the first round of the pre-test, 56.7% women and 43.3% men, composing a heterogeneous sample, with a wide age range, covering old people from 60 to 92 years old, with an average of 72.17 years (±10.16). Of these, 46.7% were institutionalized and 53.3%, from the community, with different levels of education, with a predominance of one to four years of study (50.0% of the sample). In the second round, 30 other old people with sociodemographic characteristics similar to those of the first group were evaluated, as can be seen in Table 1.

Table 1. Sociodemographic characteristics in the pre-test (N=60). Curitiba, PR, 2020.

Variable	1st Group - n(%)	2nd Group - n(%)
Sex		
Male	13 (43.3%)	14 (46.7%)
Female	17 (56.7%)	16 (53.3%)
Education		
Not literate	2 (6.7%)	4 (13.3%)
1-4 years	15 (50.0%)	12 (40.0%)
5-8 years	4 (13.3%)	7 (23.3%)
9-11 years	5 (16.7%)	6 (20.0%)
University education	4 (13.3%)	1 (3.3%)
Marital status		
Married	6 (20.0%)	4 (13.3%)
Not married	6 (20.0%)	9 (30.0%)
Widower	7 (23.3%)	9 (30.0%)
Divorced	11 (36.7%)	8 (26.7%)
Home		
Community	16 (53.3%)	12 (40.0%)
LTCF	14 (46.7%)	18 (60.0%)

LTCF = Long-term Care Facilities.

In the initial translation, the two translators presented similar versions, with differences in 19 items of the questionnaire, however, in terms considered synonyms. The use of terms and expressions familiar to the Brazilian population was prioritized, as shown in Table 2, in which it is possible to observe the versions of translators A and B and their synthesis. After discussion between translators and researchers, consensus was reached on the translation of "years of education" for "escolaridade", rather than "educação". Likewise, considering the original term "record", for which translator A suggested the word "registre" and translator B the word "grave", after discussion a consensus was reached and the term was replaced by "registre". In questions 5 and 6, the sentences

"How old are you?" and "When were you born?", relatively simple, generated a lot of doubt about which translation would be more appropriate, if "Qual é a sua idade?" or "Quantos anos você tem?" in question 5 and "Qual é a data de seu nascimento?" or "Quando você nasceu?" in question 6. We opted for "Quantos anos você tem?" and "Qual é a data de seu nascimento?", respectively.

In the back-translation, the versions showed small differences that were adjusted by consensus. Table 3 shows that seven items have been modified, with access only to the examiner. In the header the word "lista" was replaced by "escala", "indivíduo", by "avaliado", "não tiver", by "não possuir" and "ajuda", by "auxílio". In the instructions part of questions 3 and 9, the sentence "descrição da localização for dada" was replaced by "descrição da localização for fornecida" and "nome próprio feminino mais um sobrenome", by "nome próprio feminino seguido de um sobrenome", in order to standardize with more formal terms, as it is assumed that the questionnaire will be used by health professionals with higher education.

Table 2. Initial translation and synthesis of the Short Portable Mental Status Questionnaire. Curitiba, PR, 2020.

	Versions		Synthesis of translations
Original	Translator A	Translator B	Consensus
Header			
Circle Appropriate	Circule a melhor opção	Circule o apropriado	Circule a melhor opção
Yrs of education	Escolaridade	Educação	Escolaridade
Record	Grave	Registre	Registre
Subject	Paciente	Indivíduo	Indivíduo
Without reference	Sem ajuda	Sem o uso	Sem ajuda
Based	Baseado	Com base	Com base
Questions	Questões	Perguntas	Questões
Questions and Instructions			
What is the name of this place?	Onde você está?	Qual é o nome deste lugar?	Qual é o nome deste lugar?
What is your telephone number?	Qual seu número de telefone?	Qual é o seu número de telefone?	Qual é o seu número de telefone?
What is your street address?	Qual o seu endereço?	Qual é o seu endereço?	Qual é o seu endereço?
How old are you?	Qual é a sua idade?	Quanto anos você tem?	Quantos anos você tem?
Stated age	Idade informada	Idade indicada	Idade informada
When were you born?	Qual é a data de seu nascimento?	Quando você nasceu?	Qual é a data de seu nascimento?
Needs no verification	Não é necessário verificação	Não precisa de verificação	Não é necessário verificação
Subtract	Diminua	Subtraia	Subtraia
All the way down	Até o final	Até o fim	Até o fim
The entire series must be performed	A série inteira deve ser feita	Toda a série deve ser realizada	Toda a série deve ser realizada
Footnote			
Allow one more error	Permita um erro a mais	Permitir um erro a mais	Permitir um erro a mais
Intact intellectual functioning	Função intelectual intacta	Funcionamento intelectual intacto	Função intelectual intacta

Table 3. Changes made after the back-translation process. Curitiba, PR, 2020.

Synthesis of translations	Changes after back-translation
Da lista abaixo	Da escala abaixo
Indivíduo	Avaliado
Não tiver um telefone	Não possuir um telefone
Sem ajuda	Sem o auxílio
Ou outra ajuda para a memória	Ou outros recursos para a memória
Descrição da localização for dada	Descrição da localização for fornecida
Nome próprio feminino mais um sobrenome	Nome próprio feminino seguido de um sobrenome

Expert committee review

After analysis by the expert committee, changes to the title were suggested, namely: in place of "questionnaire", place "scale" and, "mental state", "cognitive capacity". Thus, the final title of the test was "Breve Escala de Capacidade Cognitiva".

They also recommended, in place of "education", place "years of study" and subdivide them into "1-4, 5-8, 9-11 and more than 11/higher education", in addition to adding the item "not literate".

It was suggested that the item "guidelines for the evaluator" be placed in bold and capital letters to draw attention before starting the evaluation. The initial text of the guidelines was not altered, however, it was placed in topics to provide a clearer appearance, indicating the importance of the instrument being read by the examiner, before its application.

In question 3, they suggested changing the question "what is the name of this place?" to "where are we now?", as it facilitates the understanding of the proposed question. In question 4, due to the second question option, it was suggested, instead of "4" and "4a", which generated confusion among some specialists, the placement of "4a" and "4b", adding an exponent "a" and "b" to help the application of the scale, drawing attention to the answer to only one of the two questions.

They also suggested changing the arrangement of questions 5 and 6, changing places, as they were complementary, since one question about age and the other, the date of birth. For the professional to confirm that the reported age matches, it is good that the question related to the date of birth is asked before.

In the item "instructions" of questions 7 and 8, after the initial translation and back-translation process, it stated "requires only the surname", but the experts identified that the interpretation of the sentence implies that only the surname would be accepted as an answer and not the name; for that reason, the sentence was changed to "may be full name or not". In question 10, they suggested, instead of the word "subtract", the term "decrease" and, from "to the end", "to 0", so that there is no continuation of the subtraction for negative numbers.

It was also recommended to add an "R:" to all questions, to make it possible to record the results, and the phrase "total number of errors" in uppercase and bold, to highlight the importance of noting the sum of the errors and not successes.

The original test took into account the education of the evaluated person for the classification of the final result; for this reason, the best term or expression was sought to facilitate the examiner's understanding of this section. The idea of using "removing a mistake" for not literate old people and "adding a mistake" for those with higher education was proposed; however, the not literate individual without any error could not have a negative result (-1). After discussion, it was decided to keep the word "permit", which makes it possible to use this resource if necessary; a specific location was also requested to place this score. Finally, the terms "intellectual function" and "intellectual disability" were changed to "cognitive ability" and

"cognitive disability", respectively, as they reflect those most used in current literature.

For the pre-test, a minimum agreement of 90% was considered for the validation of each question, that is, if a number greater than or equal to 90% of the participants classified the question as clear, it would not need corrections, while those with percentage less than 90% would be submitted to corrections and a new round of evaluation by another group of old people[26,27]. The results of this assessment are shown in Table 4.

Only one question evaluated had an agreement percentage less than 90% (question 10), being reformulated to "From 20, decrease by threes until 0" and reassessed in the second round by another group of old people, obtaining 100% clarity. From this, all questions were considered clear and understandable by the target audience, not requiring a new round of evaluations.

After the conclusion of the pre-test, the final Portuguese version of the questionnaire (complementary file) was finally obtained.

Table 4. Pre-test Content Clarity Assessment. Curitiba, PR, 2020.

Questions	Clarity			
	Not clear n(%)	Little clear n(%)	Quite clear n(%)	Totallly clear n(%)
1. Qual é a data de hoje?	0 (0)	0 (0)	0 (0)	30 (100%)
2. Que dia da semana é hoje?	0 (0)	0 (0)	0 (0)	30 (100%)
3. Em que lugar estamos agora?	0 (0)	2 (6.7%)	1 (3.3%)	27 (90%)
4[a]. Qual é o seu número de telefone?	0 (0)	0 (0)	0 (0)	30 (100%)
4[b]. Qual é o seu endereço?	0 (0)	0 (0)	0 (0)	30 (100%)
5. Quantos anos você tem?	0 (0)	0 (0)	0 (0)	30 (100%)
6. Qual é a data de seu nascimento?	0 (0)	0 (0)	0 (0)	30 (100%)
7. Quem é o presidente do Brasil atualmente?	0 (0)	0 (0)	0 (0)	30 (100%)
8. Quem foi o presidente antes dele?	0 (0)	0 (0)	0 (0)	30 (100%)
9. Qual era o nome de solteira da sua mãe?	0 (0)	0 (0)	0 (0)	30 (100%)
10. Diminua 3 de 20 e continue diminuindo 3 de cada novo número até o 0.	1 (3.3%)	10 (33.3%)	5 (16.7%)	14 (46.7%)

BREVE ESCALA DE CAPACIDADE COGNITIVA

Tradução Brasileira do *Short Portable Mental Status Questionnaire* (SPMSQ) de Pfeiffer

Data: ____/____/____

Nome: _____ Idade: _____ Sexo: ☐ Masculino ☐ Feminino

Anos de estudo: ☐ Não alfabetizado ☐ 1-4 anos ☐ 5-8 anos ☐ 9-11 anos ☐ Ensino superior

ORIENTAÇÕES PARA O AVALIADOR

- Faça as perguntas de 1 a 10 da escala abaixo.
- Realize a pergunta 4[b] somente se o avaliado não possuir um telefone.
- Registre o número total de ERROS com base nas respostas às 10 perguntas.
- Todas as respostas devem ser dadas sem o auxílio de calendário, jornal, documentos ou outros recursos para a memória.

QUESTÕES	INSTRUÇÕES	+	-
1. Qual é a data de hoje? R: ____/____ /____	Correto somente quando dia, mês e ano estiverem certos.		
2. Que dia da semana é hoje? R: _____	Correto apenas se o dia da semana estiver certo.		
3. Em que lugar estamos agora? R: _____	Correto se qualquer descrição da localização ou local for fornecida. (Minha casa, a cidade, nome do hospital / instituição em que está)		
4[a]. Qual é o seu número de telefone? R: _____ - _____ / _____ - _____	Correto quando o número puder ser verificado ou o paciente puder repetir o mesmo número mais tarde na entrevista.		
4[b]. Qual é o seu endereço? R: _____	Pergunte somente se o paciente não possuir um telefone.		
5. Qual é a data de seu nascimento? R: ____/____ /____	Correto somente quando dia, mês e ano estiverem certos.		
6. Quantos anos você tem? R: _____ anos	Correto quando a idade informada corresponder à data de nascimento.		
7. Quem é o presidente do Brasil atualmente? R: _____	Pode ser nome completo ou não.		
8. Quem foi o presidente antes dele? R: _____	Pode ser nome completo ou não.		
9. Qual era o nome de solteira da sua mãe? R: _____	Não é necessário verificação, somente se requer um nome próprio feminino seguido de um sobrenome diferente do paciente.		
10. De 20, diminua de 3 em 3 até o 0. R: (17 – 14 – 11 – 8 – 5 – 2)	Toda a série deve ser realizada; qualquer erro na série ou falta de vontade de tentar é classificado como incorreto.		
	NÚMERO TOTAL DE ERROS		

0-2 erros – Capacidade cognitiva preservada
3-4 erros – Incapacidade cognitiva leve
5-7 erros – Incapacidade cognitiva moderada
8-10 erros – Incapacidade cognitiva grave

- Para idosos não alfabetizados – permitir um erro a mais*
- Para idosos com ensino superior – permitir um erro a menos*

***PONTUAÇÃO CORRETA** ☐

Reference:

Teigão FCM, Moser ADL, Roig JJ. Tradução e adaptação transcultural do Short Portable Mental Status Questionnaire (SPMSQ) de Pfeiffer para pessoas idosas brasileiras.

Rev Bras Geriatr Gerontol. 2020;23(4):e200128. Complementary file, Breve escala de capacidade cognitiva: tradução brasileira do Short Portable Mental Status Questionnaire (SPMSQ) de Pfeiffer; p.9.

DISCUSSION

The process of translation and cross-cultural adaptation of an instrument is a complex activity, since it involves a set of tasks until functional equivalence is reached, and it is important that scales of any order follow standards for validation, as this makes it possible to compare studies from different countries, languages and cultures[16]. The method followed in the translation process of this study was chosen because it is comprehensive and requires detailed explanations of the steps taken[15] and because it is an internationally accepted and recommended methodology[19].

In the initial translation phase, the two translators presented versions without major discrepancies, which facilitated their synthesis, and the same occurred with the back-translation process, in which there were minor adjustments of words and expressions. This was probably due to the fact that the questions represent issues related to everyday life, as happened with the Spanish version of SPMSQ, which had minor adjustments in the translation process[6].

The recommendations made by the expert committee happened primarily around the best writing of the expression. Adjustments were suggested from the layout, to facilitate applicability for professionals, to clearer and more understandable expressions, in order to achieve a better understanding by old people. More appropriate words, without conceptual alteration, to guarantee a better semantic and cultural equivalence were suggested, such as the change from "questionnaire" to "scale", since the result of the application of the instrument is expressed in predetermined alternatives, with a measure graduation.

There was also a change in the term "mental state" to "cognitive capacity", as this expression covers several psychiatric diseases and, in this instrument, memory and dementia detection are specifically evaluated, relating only to cognitive issues[21], in addition to reflecting the most used term in current literature[22].

The substitution of the term "education levels" for "years of study" was due to the difficulty in understanding "elementary education" and "high school"; the terms used in the pre-test on the level of education were not familiar to the participants, since in their day the curricular bases of Brazilian education indicated the terms "primary", "gymnasium" and "collegial"[23] and the merger of the primary school with the gymnasium only took place in the 1970s[24], being that the oldest participant of the research was born in 1928. For this reason, it was decided to use "years of study", as already done by some questionnaires, such as Brucki et al.25, who proposed suggestions for the use of the Mini Exam of Mental State (MMSE) in Brazil, in which the level of education was the main influence on the performance of the test.

The changes suggested by the specialists were analyzed and discussed until a consensus was reached to guarantee the best adaptation to the Brazilian culture, as did Moraes and Alvarenga[26] who used the same method as the present study, where in their translation process, they ensured the quality, clarity of writing and especially maintenance of the original idea of the test, unlike the study by Catani et al.[27] in which consensus was only reached after three rounds of evaluation by the experts.

Changes were made to the layout of the scale, to improve visually and avoid errors in the evaluation. Changes in the appearance of the tests are common in the process of cross-cultural adaptation, as did Cauduro et al.[28], in whose study the experts suggested changing the position of the instructions and changing the nomenclature used on the scale.

The item of greatest discussion among the experts was the final consideration considering the respondent's education, reflecting on the evaluator's understanding of "allow one more error" for not literate old people and "allow one less error" for those with higher education , that is, if an appraisee has three errors and is not literate, one error will be disregarded and the final result will be two errors; for the same example, if you have higher education, one more error will be considered and classified as having four errors in the final result. For this reason, a specific location was requested to record this result.

In order to carry out an appropriate cross-cultural adaptation and to ensure that the construct was properly evaluated in the target population, the pre-test of the Brazilian version of SPMSQ was carried out with old people from the LTCF and the community, with different levels of education and conditions varied socioeconomic conditions, in order to verify the clarity of the items or possible "misunderstandings" by this population.

There was a problem in understanding question 10, the only question that had a percentage of agreement lower than 90%; 36.6% of the individuals evaluated considered the question not clear or little clear, having suggested changes considered pertinent, so that it was modified and in the second application it obtained 100% understanding.

A similar occurrence was observed in the cross-cultural adaptation of SPMSQ to Spanish[6], in which, in addition to minor adjustments, only question 9 was reformulated. Instead of asking the mother's maiden name, lost with the marriage in Anglo-Saxon culture and meaningless to their cultural environment, the SPMSQ-VE asks for the first and second surnames.

There is use of SPMSQ in several countries, however, some do not mention whether the scale was adapted or validated for the reality in question. An example is the study by Ferruci et al.[13], carried out in Italy, prospectively with 5,024 subjects, who were followed for three years to verify the association of cognitive impairment (with SPMSQ) with the risk of stroke. The study concluded that the incidence of stroke was lower in those with normal SPMSQ scores and higher in those with severe impairment.

Despite its relevance, the study, in addition to removing question 3, in this case, using nine of the ten questions, still uses the total number of correct answers 7-9 (normal), 4-6 (moderate impairment) and 0-3 (severe impairment), showing disagreement with the original scale and not reporting the reasons for such change, which may compromise the reliability of the results.

For these reasons, due cross-cultural adaptation is essential to assert whether the instrument is suitable for the cultural context, as well as meeting the proposed objectives[29,30].

The lack of assessment of psychometric properties is considered a limitation of this study, a fundamental step to increase the power of evidence of the instrument and which is under development by the authors of this study.

Recognizing the importance of making adapted instruments available, in view of the researcher's commitment to society, offering professionals and researchers an appropriate instrument nationally, the authors made it available in a complementary file.

CONCLUSION

This study demonstrated that the Brazilian version of the Short Portable Mental Status Questionnaire (SPMSQ-BR), called Breve Escala de Capacidade Cognitiva, is adequate and it was cross-culturally adapted to Brazilian Portuguese, since the items were considered clear and understandable by specialists and the target population. The translation and cultural adaptation of the instrument, in addition to providing a new tool that stood out among the existing ones for being brief, does not need third parties and does not exclude old people with visual impairment, will assist Brazilian professionals in clinical and research environments in cognitive screening that audience. The process of evaluation and analysis of psychometric properties is recommended to increase the power of evidence of the instrument, which is being developed by the authors of this study, establishing its degree of validity and reliability.

The completion of all stages will contribute to health professionals and the scientific community, as it is yet another evaluation tool available, to be used in clinical trials, comparisons of international indicators, in addition to tracking, planning and monitoring the treatment of cognitive dysfunction of old people.

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