Cross-cultural adaptation of the Attitudes about Poverty and Poor People instrument for nursing students

Adaptação transcultural do instrumento *Attitudes about Poverty*and Poor People para estudantes de Enfermagem

Adaptación transcultural del instrumento Attitudes about Poverty

and Poor People para estudiantes de Enfermería

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Abstract

Objective: To carry out cross-cultural adaptation of the Attitudes about Poverty and Poor People scale for Brazilian nursing students.

Methods: This is a methodological study of cross-cultural adaptation. The following phases were carried out: translation, synthesis, back-translation, meeting with translators, meeting with experts, content validity, pretest and cognitive interviews. The scale application sample consisted of ten nursing students from a public higher education institution. A Content Validity Index greater than 0.8 was adopted. Pre-test reliability was verified from Cronbach's alpha and split-half.

Results: The scale items, translated into Brazilian Portuguese, underwent an assessment of semantic, idiomatic, experiential and conceptual equivalence. Two items had a Content Validity Index lower than 0.8. They underwent adjustments and underwent a second round of assessment, with a Content Validity Index equal to 1. Pre-test reliability values were 0.839 (Cronbach's alpha) and 0.859 (split-half). Cognitive interviews revealed problems mainly related to interpretation.

Conclusion: The scale culturally adapted to Brazilian Portuguese has content validity for the sample tested. It is important to verify other evidence of validity, such as based on the response process, the internal structure, the relationship with other variables and the consequence of testing.

Resumo

Objetivo: Realizar a adaptação transcultural da escala *Attitudes about Poverty and Poor People* para estudantes de enfermagem brasileiros.

Métodos: Trata-se de um estudo metodológico de adaptação transcultural. Seguiram-se as fases: tradução, síntese, retrotradução, reunião com tradutores, reunião com peritos, validação de conteúdo, pré-teste e entrevistas cognitivas. A amostra de aplicação da escala foi composta de dez estudantes de enfermagem de uma instituição pública de ensino superior. Foi adotado índice de validade de conteúdo maior que 0,8. Foi verificada a confiabilidade do pré-teste a partir do alfa de Cronbach e *split-half* (par e ímpar).

Resultados: Os itens da escala traduzida para o português brasileiro passaram pela avaliação de equivalências semântica, idiomática, experiencial e conceitual. Dois itens apresentaram índice de validade de conteúdo menor que 0,8. Eles sofreram ajustes e passaram por uma segunda rodada de avaliação, com alcance de índice de validade de conteúdo igual a 1. Os valores de confiabilidade do pré-teste foram 0,839 (alfa de Cronbach) e 0,859 (*split-half*). As entrevistas cognitivas revelaram problemas relacionados principalmente à interpretação.

Conclusão: A escala adaptada culturalmente para o português brasileiro apresenta validade de conteúdo para a amostra testada. É importante verificar outras evidências de validade, como baseada no processo de resposta, na estrutura interna, na relação com outras variáveis e na consequência da testagem.

Resumen

Objetivo: Realizar la adaptación transcultural de la escala Attitudes about Poverty and Poor People para estudiantes de enfermería brasileños.

Métodos: Se trata de un estudio metodológico de adaptación transcultural. Se realizaron las siguientes fases: traducción, síntesis, retrotraducción, reunión con traductores, reunión con especialistas, validación de contenido, prueba piloto y entrevistas cognitivas. La muestra de aplicación de la escala fue formada por diez estudiantes de enfermería de una institución pública de enseñanza superior. Se adoptó el índice de validez de contenido superior a 0,8. Se verificó la fiabilidad de la prueba piloto a partir del alfa de Cronbach y el *split-half* (par e impar).

Resultados: Los ítems de la escala traducida al portugués brasileño pasaron por la evaluación de equivalencias semántica, idiomática, experiencial y conceptual. Dos ítems presentaron un índice de validez de contenido inferior a 0,8. Fueron mejorados y pasaron por una segunda ronda de evaluación y alcanzaron un índice de validez de contenido igual a 1. Los valores de fiabilidad de la prueba piloto fueron 0,839 (alfa de Cronbach) y 0,859 (*split-half*). Las entrevistas cognitivas revelaron problemas relacionados principalmente con la interpretación.

Conclusión: La escala adaptada culturalmente al portugués brasileño presenta validez de contenido en la muestra probada. Es importante que se verifiquen otras evidencias de validez, como la que se basa en el proceso de respuesta, en la estructura interna, en la relación con otras variables y en la consecuencia de la prueba.

Introduction

Poverty is a global problem and is related to health. (1,2) People living in poverty have reduced access to health services, medicines and vaccines. Also, their health care spending can drive them into extreme poverty. (3) There is also evidence of increasing poverty and income inequality during pandemics, including the current coronavirus disease 2019 (COVID-19). (4,5)

Nurses who have a structural understanding of the relationship between poverty and health can be more attentive to the health needs of people living in this situation. (6) Instruments that assess attitudes about poverty can help identify beliefs from both a structural and an individualistic and moralistic perspective in relation to poverty.

International studies on nursing education have used these instruments to examine students' beliefs before and after the application of teaching strategies, as service learning, (7,8) course (9,10) and simulation. (11-13) A study of 740 nursing students revealed that those who participated in a course on poverty and health had more positive attitudes towards people in poverty and were more likely to support a structural explanation. (6)

In Brazil, instruments used to assess nursing students' attitudes towards poverty were not identified. Only one study was identified that assessed the attitudes of dental students towards people in poverty and their association with the willingness to treat this population in their future practice⁽¹⁴⁾ through

the Attitudes about Poverty and Poor People scale. (15) In the international literature on nursing education, studies have also used this scale. (6,8,16,17)

The aim of this study was to carry out a cross-cultural adaptation of the Attitudes about Poverty and Poor People scale for Brazilian nursing students.

Methods

This is a methodological study of cross-cultural adaptation of the Attitudes about Poverty and Poor People scale. The scale was built in 1993 by sociologists professors at the University of Alabama, in the United States, in order to assist the work of social work professionals, help social work professors to assess student attitudes towards the population in poverty and apply the scale in surveys. (15) It is a 37-item Likert-type (five-point) scale that assesses attitudes towards poverty and was tested with 98 social work and sociology students. (15)

We adopted the methodological framework of Beaton et al., (18) following the steps: translation; synthesis of translations; back-translation; cultural adaptation; analyzes of semantic, idiomatic, experiential and conceptual equivalences; and pre-test.

Translation was carried out independently by two bilingual Brazilian translators with different training areas, the first being a graduate in psychology and the second in letters. It is noteworthy that only the first translator was aware of the concepts and objectives of the research. In the synthesis of translations, the converging and divergent points between the two translations were identified. The divergent points were discussed and reformulated in consensus with the two translators.

Back-translation was performed independently by two American native translators, language used in the original scale. They were instructed not to carry out searches on similar documents or on the same topic.

Cultural adaptation was carried out in a meeting with the four translators. The objective was to identify words that were not clear in the target language. To this end, a comparison was made between the original scale, synthesis and back-translation. After this checking and analysis, a consensual version was reached.

Subsequently, an expert committee was selected to validate the consensual version content. Expert committee selection was for convenience and consisted of a multidisciplinary team of seven experts: a linguistic professional, a methodological professional with experience in cross-cultural validity and adaptation research, and five nursing professors.

We included professors with a degree in nursing and an undergraduate professor, Brazilian, working with the themes of nursing education, poverty, inequalities or vulnerability and having at least 1 year of experience in their region. Nursing professors from the five geographic Brazilian regions were chosen, in order to approximate the assessment of equivalences carried out by experts to the cultural and social realities of each region of Brazil. The search and selection of these professors were carried out on the *Lattes* platform.

For content validity, scale item representativeness was verified through analysis of semantic, idiomatic, experiential and conceptual equivalences. To this end, item Content Validity Index by equivalence was calculated. We used a Likert-type scale with scores from one to four, with one for an unrepresentative item, two for an item that needs major revision to be representative, three for an item that needs minor revision to be representative, and four for a representative item. For calculation, the sum of agreement of items marked with three or four by experts was considered, divided by the total number of responses.

Experts were asked to provide a justification and a reformulation suggestion for the items scored with one or two. A Content Validity Index greater than 0.8 was adopted. In surveys with six or more experts, an index of not less than 0.78 is indicated. (19)

Quantitative data were presented using the Statistical Package for the Social Sciences software, version 19.0. For the analysis of these data, descriptive statistical methods were used, such as simple and percentage frequencies, standard deviation, mean, Content Validity Index, Cronbach's alpha and split-half.

The scale was applied to a sample of ten undergraduate nursing students, and cognitive interviews were conducted following a script based on the Three-Step Test-Interview method. (20) The script allows the interviewer to ask structured and relevant questions to access the interviewees' psychological process and cognitive operations. (20,21) The interview consisted of three stages. In the first, observation of response behavior and thinking aloud, the respondent was asked to fill in the scale as in a real situation and think aloud ("Please say aloud what you think.").(20,21) In the second stage, probing the behavior, only the verbalizations of thoughts, observed in the previous stage, which generated doubts ("You stopped there, what made you think?") were considered. (20,21) The third stage, debriefing, was the only one in which the interviewee could add comments, feelings and explanations. (20,21)

The interviews were transcribed in full using the InqScribe software, and organized according to the items that students had difficulty understanding in the MaxQDA Analytics Pro 2020 20.4.0 software.

This study was approved by the Research Ethics Committee under CAAE (*Certificado de Apresentação para Apreciação Ética* - Certificate of Presentation for Ethical Consideration) 29548020.8.0000.5149, and the scale's translation was authorized by Oxford University Press, the scale's domain institution.

Results

The experts participating in the research assessed the scale item semantic, idiomatic, experiential and conceptual equivalence. Most experts declared advanced and fluent English proficiency (n=5). Table 1 shows the scale item Content Validity Indexes, with two having a Content Validity Index lower than 0.8 ("4. Qualquer pessoa pode crescer neste país" and "24. Pessoas pobres não devem ser responsabilizadas pelo seu azar") in semantic, idiomatic and conceptual equivalences.

Table 1. Content Validity Index of scale items in Brazilian Portuguese by semantic, idiomatic, experiential and conceptual equivalences in the first round

Items		CVI			
items	SE	IE	EE	CE	
Atitudes sobre a Pobreza e as Pessoas Pobres	1	1	1	0.857	
Se você concorda plenamente, por favor circule CP.	1	1	1	1	
Se você concorda, por favor circule C.	1	1	1	1	
Se você se sente neutro em relação ao item, por favor circule N.	1	1	1	1	
Se você discorda, por favor circule D.	1	1	1	1	
Se você discorda plenamente, por favor circule DP.	1	1	1	1	
1. Uma pessoa que recebe assistência social não deve ter um carro melhor que o meu.	1	1	1	1	
2. Pessoas pobres continuarão pobres, não importa o que seja feito por elas.	1	1	1	1	
3. A assistência social torna as pessoas preguiçosas.	1	1	1	1	
4. Qualquer pessoa pode crescer neste país.	0.714	0.714	0.857	0.714	
5. Pessoas pobres ficam satisfeitas recebendo assistência social.	1	1	1	1	
6. Beneficiários de assistência social deveriam poder gastar seu dinheiro como escolherem.*	1	0.857	1	0.857	
7. Uma pessoa fisicamente capaz que utiliza o auxílio alimentação está abusando do sistema.	1	1	1	1	
8. Pessoas pobres são desonestas.	1	1	1	1	
9. Se as pessoas pobres trabalhassem mais, poderiam escapar da pobreza.	1	1	1	1	
10. A maioria das pessoas é membro de um grupo minoritário.	1	1	1	1	
11. As pessoas são pobres devido a circunstâncias fora de seu controle.*	1	1	1	1	
12. A sociedade tem a responsabilidade de ajudar as pessoas pobres.*	1	1	1	1	
13. As pessoas que recebem assistência social deveriam ser obrigadas a trabalhar por seus benefícios.	1	1	1	1	
14. Pessoas pobres e desempregadas poderiam encontrar um emprego se tentassem mais.	0.857	1	1	1	
15. As pessoas pobres são diferentes do resto da sociedade.	1	1	1	1	
16. Ser pobre é uma escolha.	1	1	1	1	
17. A maioria das pessoas pobres está satisfeita com seu padrão de vida.	1	1	1	1	
18. Pessoas pobres acreditam que merecem ser sustentadas.	0.857	1	1	1	
19. Mães que recebem assistência social têm filhos para receber mais dinheiro.	1	1	1	1	
20. Crianças criadas com assistência social nunca chegarão a lugar algum.	1	1	1	1	
21. Pessoas pobres agem de forma diferente.	1	1	1	1	
22. Pessoas pobres são discriminadas.*	1	1	1	1	
23. A maioria das pessoas pobres é suja.	1	1	1	1	

Continue...

nuation.

Homo		CVI			
Items	SE	IE	EE	CE	
24. Pessoas pobres não devem ser responsabilizadas pelo seu azar.*	0.714	0.714	0.857	0.714	
25. Se eu fosse pobre, aceitaria benefícios sociais.*	1	1	1	1	
26. Pessoas desempregadas deveriam ter que aceitar o primeiro emprego que seja oferecido.	0.857	1	1	1	
27. O governo gasta dinheiro demais em programas contra a pobreza.	0.857	1	1	1	
28. Algumas pessoas "pobres" vivem melhor do que eu, considerando todos os seus benefícios.	1	1	1	1	
29. Existe muita fraude entre beneficiários de assistência social.	1	1	1	1	
30. Benefícios para pessoas pobres consomem uma parte importante do orçamento federal.	0.857	1	1	1	
31. Pessoas pobres utilizam o auxílio alimentação sabiamente.*	1	1	1	1	
32. Pessoas pobres geralmente têm uma inteligência inferior do que pessoas que não são pobres.	1	1	1	1	
33. Pessoas pobres deveriam ser supervisionadas mais atentamente.	1	1	1	1	
34. Acredito que pessoas pobres têm um conjunto de valores diferente daqueles das outras pessoas.	0.857	0.857	0.857	0.857	
35. Acredito que as pessoas pobres criam suas próprias dificuldades.	1	1	1	1	
36. Acredito que poderia confiar em um funcionário meu que fosse pobre.*	0.857	0.857	0.857	0.857	
37. Eu apoiaria um programa que resultasse em aumento de impostos para apoiar programas sociais para as pessoas pobres.*	1	1	1	1	
NOTA: A pontuação é $CP = 1$, $C = 2$, $N = 3$, $D = 4$, $DP = 5$	1	1	1	1	
* Este item deve ser pontuado ao contrário.	1	1	1	1	
Mean CVI	0.965	0.977	0.987	0.974	

CVI: Content Validity Index; SE: semantic equivalence; IE: idiomatic equivalence; EE: experiential equivalence: CE: conceptual equivalence.

Items 4 and 24 were reformulated based on experts' suggestions (Chart 1) and underwent a second round to assess equivalences.

In the second round, items 4 and 24 had a Content Validity Index equal to 1 in the semantic, idiomatic, experiential and conceptual equivalence, which indicated 100% agreement among experts. Even after item 24 had a Content Validity Index equal to 1, the teaching expert from the Northeast suggested replacing the word "responsabilizadas" with "culpadas", and justified that there is an assimilation of guilt in the social constructions that deal with the theme of inequality. Thus, even in this round, this suggestion was considered, and the word "responsabilizadas" was replaced with "culpadas". After validating the scale content, a pre-test was carried out with ten nursing students from southeastern Brazil. Most students declared themselves to be female (n=7) and brown (n=6). The ten students lived in an urban area, most lived with

Expert	Items			
	4. Qualquer pessoa pode crescer neste país	24. Pessoas pobres não devem ser responsabilizadas pelo seu azar		
Professor from the North	No suggestion.	Pessoas pobres não devem ser responsabilizadas pela sua adversidade.		
Professor from the Northeast	I thought about using the words "se dar bem", "seguir em frente", "progredir" as possibilities.	No suggestion.		
Professor from the Midwest	"Crescer" is more applied to physical growth when placed without a complement in the sentence. I suggest "evoluir", "progredir", or "acender socialmente".	No suggestion.		
Professor from the Southeast	Qualquer pessoa pode progredir neste país.	Pessoas pobres não devem ser responsabilizadas pelo seu infortúnio.		
Professor from the South	I suggest reviewing the translation of the term "ahead" into Portuguese, as "get ahead" connotes a change in social classification and translating it as "crescer" does not intrinsically have an economic connotation. Perhaps it would be a case of including a direction for growth.	No suggestion.		
Linguistic professional	No suggestion.	No suggestion.		
Methodological professional	No suggestion.	No suggestion.		
Modified version	4. Qualquer pessoa pode progredir neste país.	24. Pessoas pobres não devem ser responsabilizadas pelo seu infortúnio.		

Chart 1. Experts' suggestions on items that presented an unsatisfactory Content Validity Index in the first round

three or more people (n=9) and had a family income between two and ten minimum wages (n=6) – the value of the minimum wage for 2021 was R\$ 1,100.00 (about US\$200.00).

Students from different periods of an undergraduate course were interviewed. There were no representatives of the seventh and tenth periods of the course. Most students had already taken courses that addressed the topic of poverty, inequalities or vulnerabilities (n=9), mainly in the discipline of collective health (n=8). Regarding internships, four students have already gone through fields where they perceived poverty, inequalities or vulnerabilities. The total score ranged from 120 to 169 (mean 150.2; standard deviation 13.68). Item 8 was the only one in which students marked the same option ("strongly disagree"), i.e., there was no variation in scores (average of 5; standard deviation of 0). Pretest reliability values were 0.839 (Cronbach's alpha) and 0.859 (split-half).

The results of the cognitive interviews revealed mainly problems related to interpretation, especially in item 10 "A maioria das pessoas pobres é membro de um grupo minoritário". In this item, eight students interpreted the item differently from each other. "Minority groups" has been interpreted in three different ways. One of them, present in four interviews, was the understanding that people living in poverty are the majority in Brazil, i.e., they understood them as majority groups. Moreover, three other students exemplified minority groups such as women, black people, LGBTQ+ and indigenous people, but they did not present in their speeches the relationship of domination that placed

these people in a situation of subalternity. Also, they expressed uncertainty about this concept. Furthermore, a student exemplified and represented the minority group as a black, transgender and peripheral woman who was inferior and discriminated against by an oppressive and dominant system. After the identification of problems in the cognitive interviews, the scale items were adjusted. Annex 1 contains the scale adapted for nursing students.

Discussion

Students scored high on the scale. These scores indicate belief that structural determinants are the main causes of poverty, while low scores indicate an individualistic explanation of poverty;⁽²²⁾ in other words, the higher the score, the more favorable the attitude towards people living in poverty, with 37 being the minimum score and 185 the maximum. ⁽¹⁵⁾ In the pilot study by Atherton et al.,⁽¹⁵⁾ developers of the scale, the test showed a Cronbach's alpha of 0.93 and a split-half of 0.87.

It is important that the differences present in the scores are due to real changes in the construct to be assessed and not due to a misunderstanding. (23) In order to avoid heterogeneity of interpretation and response bias, respondents need to resort to the pragmatic meaning of the question. (24) Item 10 presented a variation in scores due to divergent interpretations. Therefore, any comparisons between responses may not be valid. (25) For this type of problem, it is important to provide definitions of words, terms, or expressions that generate doubts, (26) a

process that was adopted in this study and can be found in Annex 1.

The score for item 10 in the study by Atherton et al. (15) is one point for strongly agree, two points for agree, three points for neutral, four points for disagree and five points for strongly disagree. However, it is recommended that this item be scored inversely, due to the dimension that the concept "minority group" can have in addition to numerical - as a discriminated population group that occupies a non-dominant position, considered inferior and that shares the same characteristics. (27)

It is recommended to expand the scale application to nursing students from different Brazilian states and from private educational institutions. In countries with heterogeneous cultural roots and large territorial dimensions, terms or expressions may be understood in a particular country region, however, in another, their use may not be appropriate. (28)

It is important to verify other evidence of validity, such as those based on the response process, on internal structure, on the relationship with other variables and on the consequence of testing. Regarding internal structure, Atherton et al. (15) identified only one factor structure and concluded that the scale had a single factor. However, Yun and Weaver⁽²²⁾ performed the factor analysis and identified three factors: personal disability, stigma and structural perspective. Moreover, they proposed an abbreviated form of the 21-item scale. Thus, it is recommended to test the internal structure of this scale, through Exploratory and Confirmatory Factor Analysis, since there was a divergence in the techniques used for factor retention between the studies, and this may have interfered with the factor structure identified.

The scale adapted for nursing students can contribute to the identification of attitudes about poverty and, mainly, the recognition of prejudiced attitudes, which hinder care for people living in poverty. It can be applied before and after poverty-related teaching strategies. These strategies can be part of a curricular subject, mandatory or not, of an extension activity and of research. In the studies identified, (6,8,16,17) the scale was applied to students from different periods, both early and late stages.

The importance of addressing, in nursing education, the relationship between poverty and health is reiterated, especially the structural factors that contribute to the reproduction of poverty and its negative consequences for health. This approach can be both at an individual level, such as care for people in poverty, and at a community level, in defense of public policies.⁽⁶⁾

The scale, made available in Brazil, will be relevant to compare the results of future studies with those carried out in other countries that applied the same scale. Furthermore, the scale will enable the identification of prejudiced beliefs about the population living in poverty. It is important to recognize that this moralistic vision, which places people living in poverty as inferior and makes them responsible for their own social condition, is still present and persistent and has consequences for the poorest' lives.

Conclusion

The scale adapted to Brazilian Portuguese showed content validity for the sample tested. In the cognitive interview, nursing students mainly revealed problems with interpretation. It is also important to verify other evidence of validity in future studies, such as those based on the response process, on the internal structure, on the relationship with other variables and on the consequence of testing.

Collaborations

Magalhães Neto IT and Silva KL collaborated with study design, data analysis and interpretation, article writing, relevant critical review of the intellectual content and approval of the final version to be published.

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