TRANSLATION AND CULTURAL ADAPTATION OF *DEATH* ATTITUDE PROFILE REVISED (DAP-R) FOR USE IN BRAZIL

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ABSTRACT

Objectives: to perform the translation, cultural adaptation, and content validation of Death Attitude Profile Revised to the Brazilian context.

Method: a methodological study that comprised the following stages: initial translation, synthesis of these translations, back translation, expert committee and pre-test conducted with 40 nursing students. The cultural adaptation process, which preceded content validation, carried out with three expert judges.

Results: the Brazilian version of Death Attitude Profile Revised maintained semantic, idiomatic, conceptual and experiential equivalences to the original version. The final content validity coefficient of the scale reached 0.85 for language clarity and theoretical relevance and 0.86 for practical relevance. Regarding the theoretical dimensions, a substantial Kappa mean value among evaluators was obtained (0.709). Data analysis on internal consistency, performed by calculating Cronbach's alpha coefficient, displayed a reliability considered high (α = 0.892).

Conclusion: it is extremely important to have an instrument adapted to the Brazilian reality that allows for measuring the attitudes towards death from both a positive and negative point of view because, by identifying these attitudes, interventions and training are designed to improve the care process in nursing. Thus, the cultural adaptation process resulted in a reliable adapted version with valid content. However, it is necessary to test the psychometric properties before using in care practice and research.

DESCRIPTORS: Death. Attitude in front of death. Nursing. Translation. Validation studies.

TRADUÇÃO E ADAPTAÇÃO CULTURAL DO *DEATH ATTITUDE PROFILE REVISED* (DAP-R) PARA USO NO BRASIL

RESUMO

Objetivo: realizar a tradução, adaptação cultural e validação de conteúdo do *Death Attitude Profile Revised* ao contexto brasileiro.

Método: estudo metodológico que compreendeu as etapas de tradução inicial, síntese das traduções, retrotradução, comitê de especialistas e pré-teste realizado com 40 estudantes de enfermagem. O processo de adaptação cultural, precedeu a validação de conteúdo, que foi realizada com três juízes especialistas.

Resultados: a versão brasileira do *Death Attitude Profile Revised* manteve as equivalências semânticas, idiomáticas, conceituais e experienciais em relação à versão original. O coeficiente de validade de conteúdo final da escala atingiu valores de 0,85 para clareza de linguagem e relevância teórica e de 0,86 para pertinência prática. Em relação às dimensões teóricas foi obtido um Kappa médio entre avaliadores substancial (0,709). Na análise dos dados sobre consistência interna, realizada por meio do cálculo do coeficiente alfa de Cronbach, apresentou-se uma confiabilidade considerada alta ($\alpha = 0,892$).

Conclusão: é de suma importância ter um instrumento adaptado à realidade brasileira que permita fazer a mensuração das atitudes frente à morte tanto do ponto de vista positivo quanto negativo, pois, por meio da identificação dessas atitudes, intervenções e treinamentos são planejados para melhoria do processo de cuidar em enfermagem. Assim, o processo de adaptação cultural resultou em uma versão adaptada confiável e com conteúdo válido. Entretanto, é necessário testar as propriedades psicométricas antes da utilização na prática assistencial e na pesquisa.

DESCRITORES: Morte. Atitude frente a morte. Enfermagem. Tradução. Estudos de validação.

TRADUCCIÓN Y ADAPTACIÓN CULTURAL DE *DEATH ATTITUDE PROFILE REVISED* (DAP-R) PARA USO EN BRASIL

RESUMEN

Objetivo: realizar la traducción, adaptación cultural y validación de *Death Attitude Profile Revised* para el contexto brasileño.

Método: estudio metodológico que comprendió las etapas de traducción inicial, síntesis de las traducciones, retrotraducción, comité de especialistas y prueba previa. Se realizó con 40 estudiantes de enfermería. El proceso de adaptación cultural, precedió a la validación del contenido que se llevó a cabo con tres jueces especialistas.

Resultados: la versión brasileña de *Death Attitude Profile Revised* mantuvo las equivalencias semánticas, idiomáticas, conceptuales y experimentales en relación a la versión original. El coeficiente de validez del contenido final de la escala alcanzó valores de 0,85 para la claridad del lenguaje y relevancia teórica y de 0,86 en cuanto a la pertinencia práctica. En relación con las dimensiones teóricas, se obtuvo un Kappa medio sustancial entre evaluadores (0,709). En el análisis de los datos sobre la consistencia interna, realizado por medio del cálculo del alfa de Cronbach, se presentó una confiabilidad considerada alta ($\alpha = 0,892$).

Conclusión: es de suma importancia contar con un instrumento adaptado a la realidad de Brasil que permita medir las actitudes frente a la muerte, tanto desde el punto vista negativo como desde el positivo puesto que, al identificar esas actitudes, se planifican intervenciones y capacitaciones para mejorar el proceso de los cuidados en enfermería. De esta manera, el proceso de adaptación cultural tuvo como resultado una versión adaptada confiable y con contenido válido. Sin embargo, es necesario someter a pruebas las propiedades psicométricas antes del uso en la práctica asistencial y en la investigación.

DESCRIPTORES: Muerte. Actitud frente a la muerte. Enfermería. Traducción. Estudios de validación.

INTRODUCTION

Death is natural to human existence. Since it is part of the life cycle, health professionals, especially nurses, are often exposed to people dying under their care, finding it difficult to see it as an integral part of life, taking it as a result of therapeutic failure and of a bad effort to cure.[1–4]

Each individual experiences in a singular way the process of dying as unique and irreversible, so there is no single way to experience it. Thus, a first stage to improve the training of health professionals, including nurses, will be to know their attitudes towards death. In this context, the theoretical framework of thanatology and palliative care offers a look that allows a deeper understanding of these attitudes.[4–8]

Attitudes towards death make the link with death being perceived as a final, irreversible and universal occurrence, and those aspects that are considered important during life, expressed under a positive or negative light. From an existentialist standpoint, positive attitudes are classified as accepting death, while negative attitudes denote fear and anxiety about death.[9]

Attitude scales are built up on the assumption that we can measure attitudes through people's beliefs, opinions, and evaluations of a particular object. Most instruments used to measure attitudes toward death are one-dimensional and focus on negative attitudinal aspects.[10]

One of the most widely used instruments in international research to successfully measure attitudes towards death is Death Attitude Profile Revised (DAP-R).[6,8–11] This Canadian instrument is distinguished for being a multidimensional measure that evaluates a broad set of attitudes, based on Kubler-Ross's conceptual analysis for death acceptance as the last stage of the dying process.[12] This model has inspiration and an existentialist orientation and understands that both fear and death acceptance are inseparable and are related to the search for meaning in life. It is noteworthy that this scale has already been validated for use in Poland, Germany, Turkey, China, Iran, Japan, Portugal, Greece, Spain, Romania and Finland.[10,12–22]

DAP-R defines three types of acceptance. *Neutral Acceptance* understands death from the perspective of individuals as yet another fact of life, or as an integral part of it, implying an ambivalent or indifferent attitude. *Approach Acceptance* has a religious essence because it implies believing in a happy life after death, where religious beliefs and religiosity include the notion that death can bring peace and harmony with God. However, *Escape Acceptance* is based on the assumption that when one lives in certain circumstances that cause pain and suffering for the individual, death becomes an alternative to the end of suffering. It also assesses both anxiety and fear of death simultaneously (thoughts and feelings about death and the dying process) and avoidance (talking or thinking about death in order to reduce this fear and anxiety).[6,12,18]

The study of the attitudes has interested researchers in various fields because it is thought that they underlie specific behaviors or actions, that is, thinking that attitudes are powerful components in the decision-making process in various areas. Research indicates that nurses' attitudes towards death may influence the quality, care and behavior of these professionals with the patient, and may lead to inappropriate behavior in front of patients who experience the death process. In addition, when undergraduate nursing students were trained in the subject of death and dying, they developed more positive attitudes in caring for end-of-life individuals than those who had no teachings on the subject.[3–8,23]

Measuring the attitudes of undergraduate nursing students towards death may support strategies to better prepare them as future professionals in caring for end-of-life people. However, there are few multidimensional instruments that evaluate the construct "attitudes" towards death in Brazil.

In this sense, the cultural adaptation of an instrument, in this case the DAP-R, for use in the Brazilian context has the advantage of starting from an instrument already built up and validated,

resulting in saving time and financial resources. In addition, because it has been widely used in other countries, using the DAP-R allows for comparing the results across groups of different cultures and different languages, as well as achieving fairness of assessment in terms of methods and comparability among the scores and the obtained results.[24–26]

Given the above, this study aimed at performing the translation, cultural adaptation and content validation of the DAP-R to the Brazilian context. Thus, the following research question arises: Does the translated and adapted version of the DAP-R include content valid for the Brazilian context?

METHOD

This is a methodological study of cultural adaptation and content validation. The permission to adapt the DAP-R instrument for use in Brazil was granted by Professor Dr. Paul T. P. Wong, lead author of the instrument, with the consent of the others, via electronic mail.

The DAP-R consists of 32 items divided into five dimensions: *Fear of Death* (7 items), Death Avoidance (5 items), Neutral Acceptance (5 items), Approach Acceptance (10 items) and Escape Acceptance (5 items). Each item is evaluated according to a Likert agreement scale ranging from 1 (strongly disagree) to 7 (strongly agree) points. The total sums of each factor are transformed into averages, dividing the value obtained by the number of items that constitute the factor. Thus, an average of values is obtained as a result for each type of attitude that the individual manifests and it is known which is the predominant one.[18,27–28]

The conducted cultural adaptation process followed recommendations proposed by a specific theoretical framework, consisting of five stages (Figure 1).[29–30]

Initial translation

At this stage, Death Attitude Profile Revised was translated from Canadian English to Brazilian Portuguese by two individuals born in this country, with extensive English knowledge, confirmed by proficiency testing.

Translator 1 was a biomedical doctor who was informed by the researcher about the concepts of the instrument and the translation purpose. Translator 2 did not know the concepts of the instrument and was not informed about them. The original English language version of the instrument was emailed to the translators. The translations were performed independently, resulting in two versions in the Brazilian Portuguese language (T1 and T2).

Each item of the instrument was read and the discrepancies between the translations were highlighted and discussed, trying to maintain the meaning of the original instrument and taking into account in the process both the population to which the instrument would be applied and the factors being intrinsic to the Brazilian context.

Synthesis of translations

After the translations have been accomplished, the researcher met with the translators to analyze the two documents (T1 and T2). Thus, they consensually elaborated a synthesis version of the translations (T12) in Portuguese. For analyzing T1 and T2 versions, the translators and the researcher received a copy of each translation and the original instrument.
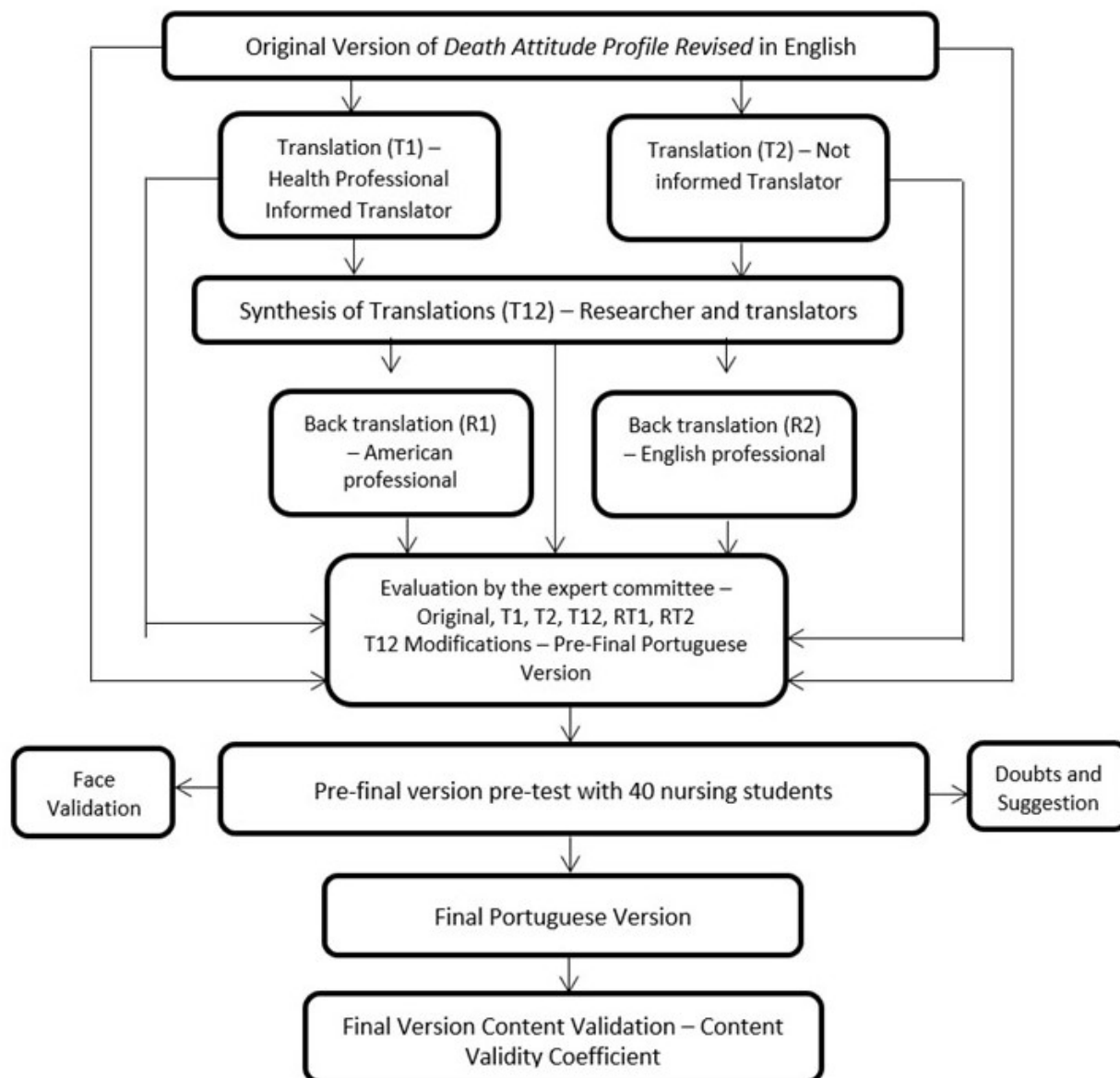
Figure 1 – Graphic representation of the cultural adaptation process of the Death Attitude Profile Revised instrument to Brazil. Teresina, PI, Brazil, 2016

Back translation

In the next stage, the synthesis version (T12) was sent for back translation by two other translators, one American and one English, both from the Languages Without Borders Program who acted as English teachers and were unaware of the original version of the scale. They had no training in the health area and were not informed about the concepts and objectives of the study, and this stage was blinded in relation to the translations.

They back translated the instrument into the English language. The T12 version was sent via e-mail to the back translators, who performed the entire process independently without any knowledge on the other's translation. At this stage, two back translated documents were obtained in the English language (RT1 and RT2).

Expert committee

For the expert committee, the population consisted of five judges selected according to the authors' recommendations of the adaptation method used, one being expert in the methodology; a researcher with experience in the theme of death and dying; two external members, health professionals with clinical or practical experience in the subject; and one of the authors of the translated version. The selection to participate as a specialist was made through a recruitment in research groups in the major area of health sciences, focusing on thanatology, and from this, a research was conducted in the Lattes curriculum. The presences of the translator and the expert in the methodology took place by convenience, to meet the requirements of the method.

In this study, the committee of experts was composed of a physician, president of the Brazilian Association of Thanatology, doctor and organizer of three books on palliative care and thanatology; a nurse, doctor, and specialist in social psychiatry and community therapy with over twenty years of experience, studying thanatology; a nurse, master in nursing with practical experience in thanatology; translator 1, who was a health professional and knew the research objectives; and a methodology expert, with a doctorate in nursing, using the cultural adaptation method.

The committee participants received all the produced instruments (T1, T2, T12, RT1, and RT2) and the original version together with a form containing the equivalence assessment, which should be completed, adding the appropriate comments and suggestions. Semantic equivalence aims to evaluate words to ensure they have the same meanings; idiomatic equivalence refers to the evaluation of items so that they do not change their cultural meaning; experimental or cultural equivalence observes whether the instrument item is applicable in the new culture; and conceptual equivalence seeks to identify whether the term or expression evaluates the same aspect in different cultures.[29]

In the course of two months, committee participants and the researcher were in contact via *email* to clarify doubts regarding the scale and the instruments, especially the equivalence evaluation. In May 2016, the researcher gathered in a single instrument the compilation for assessing the equivalence for all participants, which served as a guide for final discussion in a face-to-face meeting that resulted in developing a pre-final version of the instrument to be used in the pre-test.

Pre-test

The pre-final version was used to conduct the pilot test phase and applied along with a data collect form with 40 nursing students selected for convenience. The authors point out that at this stage an audience of between 30 and 40 subjects should be used.[29] By applying the pre-test it was possible to identify words or expressions that could cause doubts. The students were asked about the comprehension and clarity of the instrument and about the suggested changes and rewriting for those who had any difficulties.

Content validation

After producing the final adapted version of the scale, content validation was performed by another committee of experts. As the items on the scale were already randomized within the instrument, they were arranged in a spreadsheet and sent to the evaluating judges with a letter of instructions. The judges were three thanatology specialists, doctors, one physician and two nurses. The selection of judges was made by the search for experts through the Lattes curriculum. Each participant received the scale and an instrument for content validation, addressing criteria on clarity, practical relevance, theoretical relevance, and theoretical dimension.[30]

Thus, the Content Validity Coefficient (CVC) was calculated;[31] in this measurement, a minimum of three and a maximum of five judges should be used and, for this study, three experts took part

in the analysis. The CVC addresses some method deficiencies such as Kappa, which is used only with categorical variables, and the Content Validity Index, which does not consider possible biases between evaluators.

After calculating the CVC, it is recommended that only items with a CVC>0.8 be considered acceptable. However, understanding that the judges might not have the same background and thus have different opinions, the cutoff point may be relativized.[26–27] Therefore, in this research, every item that reached 0.75 in the final CVC was considered appropriate. The theoretical dimension was analyzed by the agreement among the judges' evaluations by means of the mean Kappa.

It is noteworthy that the final version and the documents of its stages were appreciated and approved by the original authors. In this study, the test stage of the instrument's psychometric properties was not developed.

RESULTS

Regarding the process of translation and cultural adaptation of the scale, the versions of the Original Scale and the Scale adapted for use in Brazil are shown in Chart 1. In order to preserve the intellectual property of the original scale and to recognize the data obtained in Brazilian populations by our peers from the international community, the original acronym of the scale was kept in the Brazilian version.

Chart 1 – Final version of Death Attitude Profile Revised. Teresina, PI, Brazil, 2016

Original	Final Instrument Version, Brazil
Death Attitude Profile Revised (DAP-R)	*Perfil de atitudes frente à morte - Revisado* (DAP-R).
1. Death is no doubt a grim experience.	1. *A morte é sem dúvida uma experiência desagradável.*
2. The prospects of my own death arouses anxiety in me.	2. *A expectativa da minha própria morte desperta ansiedade em mim.*
3. I avoid death thoughts at all costs.	3. *Evito pensamentos sobre a morte a todo custo.*
4. I believe that I will be in heaven after I die.	4. *Acredito que vou para o céu depois que eu morrer.*
5. Death will bring an end to all my troubles.	5. *A morte trará um fim a todos os meus problemas.*
6. Death should be viewed as a natural, undeniable, and unavoidable event.	6. *A morte deveria ser vista como um evento natural, inegável e inevitável.*
7. I am disturbed by the finality of death.	7. *Me incomoda o caráter definitivo da morte.*
8. Death is an entrance to a place of ultimate satisfaction.	8. *A morte é uma entrada para um lugar de satisfação plena (céu, paraíso).*
9. Death provides an escape from this terrible world.	9. *A morte proporciona uma fuga deste mundo terrível.*
10. Whenever the thought of death enters my mind, I try to push it away.	10. *Sempre que o pensamento de morte entra na minha mente, eu tento afastá-lo.*
11. Death is deliverance from pain and suffering.	11. *A morte é uma libertação da dor e do sofrimento.*
12. I always try not to think about death.	12. *Eu sempre tento não pensar sobre morte.*
13. I believe that heaven will be a much better place than this world.	13. *Acredito que o céu será um lugar bem melhor do que este mundo.*
14. Death is a natural aspect of life.	14. *A morte é um aspecto natural da vida.*

Chart 1 – Cont.

Original	Final Instrument Version, Brazil
15. Death is a union with God and eternal bliss.	15. *A morte é uma união com Deus e com a felicidade eterna*.
16. Death brings a promise of a new and glorious life.	16. *A morte traz a promessa de uma vida nova e gloriosa*.
17. I would neither fear death nor welcome it.	17. *Não temeria a morte, mas também não a receberia de braços abertos*.
18. I have an intense fear of death.	18. *Eu tenho um medo intenso da morte*.
19. I avoid thinking about death altogether.	19. *Eu, de modo geral, evito pensar sobre a morte*.
20. The subject of life after death troubles me greatly.	20. *O tema da vida após a morte me incomoda muito*.
21. The fact that death will mean the end of everything as I know it frightens me.	21. *O fato de que a morte significa o fim de tudo que eu conheço, me assusta*.
22. I look forward to a reunion with my loved ones after I die.	22. *Tenho esperança de me reunir com os meus entes queridos depois que eu morrer*.
23. I view death as a relief from earthly suffering.	23. *Vejo a morte como um alívio do sofrimento terreno*.
24. Death is simply a part of the process of life.	24. *A morte é simplesmente parte do processo da vida*.
25. I see death as a passage to an eternal and blessed place.	25. *Vejo a morte como uma passagem para um lugar eterno e abençoado*.
26. I try to have nothing to do with the subject of death.	26. *Tento não me envolver com o tema da morte*.
27. Death offers a wonderful release of the soul.	27. *A morte oferece uma maravilhosa libertação da alma*.
28. One thing that gives me comfort in facing death is my belief in the afterlife.	28. *Uma das coisas que me conforta ao enfrentar a morte é minha crença em uma vida após a morte*.
29. I see death as a relief from the burden of this life.	29. *Vejo a morte como um alívio do fardo dessa vida*.
30. Death is neither good nor bad.	30. *A morte não é boa nem ruim*.
31. I look forward to life after death.	31. *Espero ansioso pela vida após a morte*.
32. The uncertainty of not knowing what happens after death worries me.	32. *A incerteza de não saber o que acontece depois da morte me preocupa*.

From the evaluation of the equivalences (semantic, idiomatic, experimental, conceptual) of the items by the judges and recommendations, in relation to the title, it was decided to use the expression "*frente* à", having as translation "*Perfil de atitudes frente à morte - Revisado* (DAP-R)". This change occurred because "*atitudes frente* à *mort*e" is the usual expression used in Brazil to refer to the measured construct.

The Neutral Acceptance dimension of the instrument, which understands death as another fact of life or as an integral part of it implies an ambivalent attitude. In the Brazilian context, the committee defined that the most appropriate term would be "*Aceitação Natural*".

The Approach Acceptance dimension, corresponding to the attitude of believing that there is a happy life after death, and in where the religious beliefs and religiosity include the notion that death may bring peace and harmony with God, was commonly agreed by judges as "*Transcendência*", because this term represents the concept approached in this dimension.

The Escape Acceptance dimension, which understands death as an alternative to end the suffering when living in certain circumstances that cause pain to the individual, has been defined in our context as "*Aceitação como fuga*". No discussion on the *Fear of Death* dimension, its literal translation being "*Medo da morte*", considered valid.

The "Death Avoidance" dimension brought many disagreements because there is no equivalent noun term ("*evitamento*") in Portuguese. In the end, it was decided to denominate this dimension with the infinitive verb analogous to the term, staying with "*Evitar a morte*". In item 8 of the instrument, examples that were intended to assist in the understanding of the item by the subjects and the choice of their answers were added.

When elaborating the synthesis version of the translations, it was necessary to replace the phrase welcome, item 17, with an equivalent expression in the local context, because the literal translation into Portuguese led to an unusual term in Brazil. In addition, as this is a welcome expression, it was preferred to use a colloquial equivalent: "*Receber de braços abertos*", as done in the Portugal version.[18]

The pre-test was conducted with a group of 40 nursing students, predominantly women (75.0%), young and single adults (95.0%) and who declared themselves Catholic, 22 (55.0%). Participants had little or no theoretical contact with aspects related to thanatology and palliative care: 37 (92.5%) did not attend any palliative care discipline and 100% denied having attended any discipline related to thanatology or having participated in any research or extension project that involved the theme. However, more than half (n=22, 55%) provided care to some terminally ill patient, 15 (37.5%) had at least one patient who died under their care and 13 (32.5%) witnessed or performed postmortem body care.

The students were asked about the comprehension and clarity of the instrument and about the suggestions of change and rewriting for those who had any difficulties. Based on the suggestions of the target population, item 22 was modified.

Item 22, "*Espero ansioso para me reunir com os meus entes queridos depois que eu morrer*," has been changed to "*Tenho esperança de me reunir com meus entes queridos depois que eu morrer*," as it was considered unclear by most students. It is understood that the scale was understandable, considering that only one item was changed, replacing the introductory expression with a more usual one in our context, without changing, however, the meaning of the sentence.

The preliminary analysis of the data obtained in the pre-test on the internal consistency regarding the Brazilian version of the DAP-R, performed by calculating Cronbach's alpha coefficient, showed high reliability ($\alpha=0.892$). Table 1 presents the values of the alpha coefficients for each of the dimensions obtained in this research and the values of the original scale.

Table 1 – Comparison of Cronbach's alpha coefficients in each dimension in relation to the original coefficients - Wong, Reker and Gesser (1994). Teresina, PI, Brazil, 2016

Dimension (Mean ± Standard Deviation)	Alpha coefficient DAP-R (Wong, Reker and Gesser, 1994)	Pre-test Alpha Coefficient DAP-R (Machado, 2016)
Fear of Death (4.23±1.29)*	$\alpha = 0.86$	$\alpha = 0.80$
Death Avoidance (3.93±1.65)*	$\alpha = 0.88$	$\alpha = 0.91$
Neutral Acceptance (5.55±0.83)*	$\alpha = 0.65$	$\alpha = 0.60$
Approach Acceptance (4.33±1.20)*	$\alpha = 0.97$	$\alpha = 0.87$
Escape Acceptance (4.06±1.50)*	$\alpha = 0.84$	$\alpha = 0.86$

* Data regarding the pre-test results; DAP-R: Death Attitude Profile Revised.

As noted in the original version of the scale, the "Neutral Acceptance" dimension was the attitude for which a moderate value was found in terms of its internal consistency.

In the Brazilian version, the calculation of the scores for each dimension of the scale followed the same recommendations of the original authors, consisting of a sum of the scores for the items of each dimension and the division by the total number of items. Thus, in the pre-test data we observed a higher average for the Neutral Acceptance dimension (5.55±0.83), followed by Approach Acceptance (4.33±1.20) and the lowest average in the Death Avoidance dimension (3.93±1.65).

Table 2 shows the Content Validity Coefficient (CVC) scores for each item in relation to the three characteristics evaluated (Language Clarity, Practical Relevance and Theoretical Relevance), and for the theoretical dimension analysis, the agreement between judges' evaluations by calculating the mean Kappa was sought.

Table 2 – Calculation of the content validity coefficient and mean Kappa
among raters for theoretical dimensions of the Brazilian version of
Death Attitude Profile Revised. Teresina, PI, Brazil, 2016

Scale items	Final content validity coefficient			Mean Kappa
	LC†	PP‡	TR§	
Fear of Death				0.658*
1. Death is no doubt a grim experience.	0.96	0.96	0.96	
2. The prospects of my own death arouses anxiety in me.	0.96	0.96	0.96	
7. I am disturbed by the finality of death.	0.96	0.96	0.89	
18. I have an intense fear of death.	0.96	0.96	0.96	
20. The subject of life after death troubles me greatly.	0.83	0.83	0.83	
21. The fact that death will mean the end of everything as I know it frightens me.	0.96	0.96	0.96	
32. A incerteza de não saber o que acontece depois da morte me preocupa.	0.96	0.96	0.96	
Death Avoidance				0.571*
3. I avoid death thoughts at all costs.	0.89	0.89	0.89	
10. Whenever the thought of death enters my mind, I try to push it away.	0.89	0.89	0.89	
12. I always try not to think about death.	0.82	0.76	0.76	
19. I avoid thinking about death altogether.	0.89	0.89	0.96	
26. I try to have nothing to do with the subject of death.	0.96	0.89	0.83	
Neutral Acceptance				0.733*
6. Death should be viewed as a natural, undeniable, and unavoidable event.	0.96	0.96	0.96	
14. Death is a natural aspect of life.	0.89	0.96	0.96	
17. I would neither fear death nor welcome it.	0.83	0.89	0.76	
24. Death is simply a part of the process of life.	0.89	0.83	0.82	
30. Death is neither good nor bad.	0.83	0.83	0.76	
Approach Acceptance				0.794*
4. I believe that I will be in heaven after I die.	0.89	0.76	0.89	
8. Death is an entrance to a place of ultimate satisfaction.	0.76	0.89	0.89	

<div align="center">**Table 2 –** Cont.</div>

Scale items	Final content validity coefficient			Mean Kappa
	LC†	PP‡	TR§	
13. I believe that heaven will be a much better place than this world.	0.89	0.76	0.89	
15. Death is a union with God and eternal bliss.	0.76	0.76	0.76	
16. Death brings a promise of a new and glorious life.	0.76	0.83	0.76	
22. I look forward to a reunion with my loved ones after I die.	0.96	0.96	0.89	
25. I see death as a passage to an eternal and blessed place.	0.89	0.89	0.83	
27. Death offers a wonderful release of the soul.	0.76	0.83	0.83	
28. One thing that gives me comfort in facing death is my belief in the afterlife.	0.89	0.89	0.83	
31. I look forward to life after death.	0.83	0.89	0.89	
Escape Acceptance				0.756*
5. Death will bring an end to all my troubles.	0.96	0.96	0.96	
9. Death provides an escape from this terrible world.	0.96	0.96	0.96	
11. Death is deliverance from pain and suffering.	0.96	0.96	0.96	
23. I view death as a relief from earthly suffering.	0.96	0.96	0.96	
29. I see death as a relief from the burden of this life.	0.96	0.96	0.96	
Total	0.85	0.86	0.85	

*p-value<0.001; †LC: Language Clarity; ‡PP: Practical Pertinence; §TR: Theoretical Relevance.

Regarding the theoretical dimension, the mean value of Kappa coefficient was substantial (k_{mean}=0.709), an acceptable value regarding the agreement among the judges on the items evaluated in the final version compared to the original. The level of agreement, calculated by averaging the Kappa coefficient of the three judges with the original dimension, was moderate for the "Death Avoidance" dimension and substantial for the other dimensions, as well as in the calculation of the total Kappa for the scale.

DISCUSSION

Literature analysis shows that attitudes towards death are a complex, multidimensional construct; however, many studies focus only on anxiety and on fear of death.[10,18,23] Thus, the DAP-R stands out for analyzing the construct from the positive (acceptance) and negative (fear, anxiety and avoid thinking or talking about death) constructs, and is one of the most psychometrically sound measures for assessing attitudes to death in the world.[9–23] Thus, it is justified to perform the cross-cultural adaptation of the scale in order to be able to conduct future studies that may allow comparisons between attitudes towards death in Brazil with other countries.

The cultural suitability effectiveness will depend on whether the translation process considers the differences between the target language and the original language, as this phase should minimize deviations in the meanings of the items. To do so, it is essential to follow the instructions laid down for its development.[24,26] In this regard, all stages of the method have been carefully performed.

Some items underwent modifications by the expert committee to the final Portuguese version, such as replacing a literal translation with a colloquial expression with the corresponding meaning.

Other studies also mention the presence of words or expressions without correspondents in Portuguese that needed to be translated in a contextualized manner in order to maintain the meaning of the original instrument.[18,32–33]

In discussions with the committee there were changes in some words to suit the Brazilian reality. Thus, for the dimensions of acceptance, there are: *Natural*, *Transcendência* and *Fuga*. The term "*Natural*" means everything that belongs or refers to nature, being used in this context for attitudes that express death as something inherent to the human being, in the sense that it is part of life. This is the positive dimension pointed out by the authors as desired for health professionals.[34–35]

Transcendência (from Latin *transcēndo, is, di, sum,* ĕre: 'to pass going up, cross, surpass, transpose') implies believing in spiritual elevation. In this context, death represents the passage to a full life of reunion with God in paradise. Thus, the items found in this dimension of the scale bring out exactly this meaning.[36] However, the term "*Fuga*" refers to the act or effect of escaping/running away, being much more usual than "*escape*", and refers to the items that deal with death as the end of pain and suffering.

For other references of cultural adaptation, such changes are related to the operational equivalence of the instrument, that is, to a comparison between the aspects that involve the use of the instrument in both cultures, seeking that the effectiveness of the instrument shall be similar in both contexts. These adjustments are relevant since the measurement methods used in the original context may not be appropriate in a different context.[32,37]

The students who took the pre-test had a higher average of Neutral Acceptance, which is seen as a positive point, as it indicates that nursing students accept death from a more neutral point of view, understanding it as part of the life cycle. Studies in Portugal, Iran, Turkey and China also showed higher values for this dimension.[14,16,18,38–39]

Second is Acceptance as Transcendence. It is understood that the religious factor directly influences attitudes towards the death of the individuals. Christian philosophy has been the basis for many studies on death and dying. Instruments were developed based on their concepts, including the DAP-R. Christians should not fear or avoid death, but accept death, since it goes beyond a process for them, it brings out the promise for eternity (resurrection in Christ).[40]

In addition, Fear of Death averaged very close to Acceptance as Transcendence. This dimension is characterized by anxiety caused by thoughts and feelings about death and the dying process. Authors point out that this attitude comprises an ego defense against suffering but, when it stands out, it can make it difficult to understand the present moment and the meaning of life.[9]

Through using the DAP-R, several international studies have been developed with a focus on testing the differences that are made when students and health professionals undergo training processes on end-of-life care/thanatology and how this may influence the care provided. Individuals who have had death training have more positive attitudes compared to those who had not.[23,41]

Good adequacy of the adapted version of the instrument to the Brazilian reality was verified, considering that the analyses of the content validity coefficient were all within the acceptable score values.

Due to the time limitation for this study, the testing on the psychometric properties of the scale is not submitted here. However, researchers are already collecting data to validate it. In addition, it is noteworthy that preliminary statistical analyses were performed with the pre-test data that point out to adequate instrument reliability indices.

Another point refers to the sample obtained for the pre-test, which included only young adults. The DAP-R was developed focusing on a target audience that also includes adults and the elderly, so future investigations should be conducted in order to confirm the possibility of using the adapted scale in these other population strata.

CONCLUSION

Attitudes towards death influence practical and daily aspects of cares provided by the health professionals, especially nurses, to end-of-life individuals. And by identifying these attitudes, interventions and training are designed to improve the nursing care process. Thus, it is extremely important to have an instrument adapted to the Brazilian reality that allows us to make this measurement from both a positive and a negative point of view.

The translation and cultural adaptation of *Death Attitude Profile Revised* for use in Brazil strictly followed the methodological stages proposed in the methodological framework used. It is believed that the data herein submitted represent a good parameter to consider that the instrument obtained an adequate adaptation to the national context. A Brazilian version of *Death Attitude Profile Revised* which will allow us, in future investigations, to compare attitudes towards death with various other countries and cultures is thus presented.

It is noteworthy that it is essential to test the psychometric properties of the Brazilian version to ensure the reliability and construct validity of this instrument, although these properties have already been tested in the original version and in several other countries. It is noteworthy that the adaptation of an instrument is only the first stage for its use in the local context. Thus, researchers from other regions of the country may conduct studies to confirm the adequacy of the instrument and its psychometric properties in the specific population of that area.

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NOTES

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Study design: Machado RS, Silva GRF.
Data collection: Machado RS.
Analysis and interpretation of data: Machado RS, Silva GRF, Oriá MOB, Fernandes MA, Gouveia MTO.
Discussion of the results: Machado RS.
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The study was approved by the Research Ethics Committee of the *Universidade Federal do Piauí* under Opinion No. 1.416.485, and Certificate of Presentation for Ethical Assessment No. 49593715.2.0000.5214.

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