Original Article

Cross-cultural adaptation and content validity of the Career Anchors Self-Assessment for Brazilian nurses

Adaptação Transcultural da *Career Anchors Self-Assessment* para enfermeiros brasileiros e validade de conteúdo

Adaptación transcultural de la Career Anchors *Self-Assessment* para enfermeros brasileños y validez de contenido

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Abstract

Objective: Cross-culturally adapt and evaluate the evidence of content validity of the "Career Anchors Self-Assessment" for the context of Brazilian nurses.

Methods: Psychometric study carried out in university hospitals between January 2021 and April 2022, based on the 11 steps for cross-cultural adaptation proposed by the Patient Report Outcomes Measurement Information System, and evidence of content validity analyzed using the Content Validity Ratio (CVR).

Results: The cultural adaptation procedure ensured that the Brazilian version had good quality conceptual, semantic, idiomatic and experiential equivalence. Content Validity Ratio (CVR) values above 0.778 were obtained. The cognitive test showed good comprehension of the instrument.

Conclusion: The Brazilian version, called Self-Assessment of Career Anchors, has good translation quality and evidence of content validity, making it a potential tool for nurses working in hospitals. However, advances are needed in the analysis of other validity evidence to consolidate its effectiveness and reliability.

Resumo

Objetivo: Adaptar transculturalmente e avaliar as evidências de validade de conteúdo da "*Career Anchors Self-Assessment*" para o contexto dos enfermeiros brasileiros.

Métodos: Estudo psicométrico realizado em hospitais universitários entre janeiro de 2021 e abril de 2022, a partir das 11 etapas para adaptação transcultural propostas pelo *Patient Report Outcomes Measurement Information System*, e evidência de validade de conteúdo analisadas por meio *do Content Validity Ratio* (CVR).

Resultados: O procedimento de adaptação cultural garantiu que a versão brasileira apresentasse boa qualidade de equivalências conceitual, semântica, idiomática e experimental. Foram obtidos valores *do Content Validity Ratio* (CVR) acima de 0,778. O teste cognitivo demonstrou boa compreensão do instrumento.

Conclusão: A versão brasileira, denominada Autoavaliação das Âncoras de Carreira, apresenta boa qualidade de tradução e evidências de validade de conteúdo, tornando-se uma potencial ferramenta para aplicação em enfermeiros que atuam em hospitais. No entanto, são necessários avanços nas análises das demais evidências de validade para consolidar sua eficácia e confiabilidade.

Resumen

Objetivo: Realizar una adaptación transcultural y evaluar las evidencias de validez de contenido de la *Career Anchors Self-Assessment* para el contexto de los enfermeros brasileños.

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Conflicts of interest: nothing to declare.

Métodos: Estudio psicométrico realizado en hospitales universitarios entre enero de 2021 y abril de 2022, a partir de las 11 etapas para la adaptación transcultural propuestas por el *Patient Report Outcomes Measurement Information System*, y evidencias de validez de contenido analizadas mediante el *Content Validity Ratio* (CVR).

Resultados: El procedimiento de adaptación cultural garantizó que la versión brasileña presente buena calidad de equivalencias conceptuales, semánticas, idiomáticas y experimentales. Se obtuvieron valores del *Content Validity Ratio* (CVR) superiores a 0,778. La prueba cognitiva demostró una buena comprensión del instrumento.

Conclusión: La versión brasileña, llamada *Autoavaliação das Âncoras de Carreira* (Autoevaluación de las Anclas de Carrera), presenta una buena calidad de traducción y evidencias de validez de contenido, lo que la transforma en una herramienta potencial para utilizar con enfermeros que trabajan en hospitales. Sin embargo, es necesario avanzar en el análisis de las demás evidencias de validez para consolidar su eficacia y fiabilidad.

Introduction

A professional career involves professional qualifications, the search for autonomy, recognition and credibility in the profession. From this perspective, the career anchor is defined as the professional choices adopted by the individual through the overarching motives that are shaped by years of work experience.[1,2] These anchors reflect professional identity, as changes in choices can influence the worker's anchor and their future decisions at work.[3]

The concept includes eight categories: Technical/Functional Competence (TFC), Managerial Competence (MC), Autonomy and Independence (AI), Security and Stability (SS), Entrepreneurial Creativity (EC), Sense of Service/Dedication to a Cause (SSDC), Pure Challenge (PC) and Lifestyle (LS), indicating professional inclinations and promoting career self-knowledge.[2]

Being aligned with the career anchor means that your choices are in line with your duties. A study in Brazil found misaligned nurses, which affected their motivation and mental health.[4] In various organizational environments, generational changes and those observed after the advent of the disease caused by the new coronavirus (COVID-19) may have influenced the behavior of individuals and their relationship with anchors, making this contemporary issue more relevant. Understanding the reasons for choosing a career can be influenced by the context. It is important for nurses to identify their career anchors (professional choices) in their professional practice so that they can align themselves with professional practice using validated instruments.[4]

This identified the need to carry out a Cross-Cultural Adaptation (CCA) of the "Career Anchors Self-Assessment" instrument into Brazilian Portuguese. A gap was pointed out by research indicating the absence of CCA studies of the scale in Brazil, as well as the lack of studies that followed the methodological steps of a psychometric study. It is essential that evidence of the instrument's validity meets satisfactory validity criteria.[4]

This highlights the importance of updating adaptation studies, based on the main contemporary references, in order to refine the process and propose the most appropriate steps to be used.[5] In the context of growing research, instruments are crucial for the results of studies, interventions and policies, ensuring scientifically sound results.[6]

With regard to the instrument, four versions could be identified: the 1993 and 1996 versions (in English) present structural differences in application. The 2013 version,[3] the only one in Portuguese, lacks robust validity evidence and does not follow the steps of the psychometric method. The 2006 version, authorized for adaptation in nursing, was renamed by its author in the book "Career Anchors: Self-assessment", third edition in English,[7] created and published by Edgar Henry Schein.[7] No CCA studies were found prior to the current study.[7]

The CCA of instruments consists of a meticulous process that involves the cultural context of the version's target population and makes the literal translation of words and phrases from one language to another, using statistical calculations.[8] In order to carry out this type of study, all cultural differences related to the population chosen to apply the instrument must be considered, ensuring its validation.[9]

Thus, the objective was to cross-culturally adapt and evaluate the evidence of content validity of the "Career Anchors Self-Assessment" for the context of Brazilian nurses.

Methods

This was a psychometric study that followed the guidelines of the Patient-Reported Outcomes Measurement Information System (PROMIS®): Standards document,[10] one of the most recommended methodologies for carrying out cross-cultural adaptation. This methodology ranges from direct translation to the 11-step harmonization process.

The "Career Anchors Self-Assessment" scale, published in English, is self-completed and participants assign a grade to each item. There are eight categories, each with 5 statements, totaling 40 statements in the original. When finished, the participant reviews their answers and identifies the items that received a 4 rating, selects five of these items[7] and adds five to these items. The results are obtained by averaging the eight anchors.

This study was carried out in a university hospital located in Rio de Janeiro, when the sample was selected for the cognitive test, which was carried out in the penultimate stage of the cross-cultural adaptation. In all 11 stages, translators and experts were used, selected on the basis of their Lattes CVs and experience in the process of translating scientific texts.[9,10]

Two translations into Portuguese were carried out by two Brazilian translators fluent in English. One, aware of the objectives and concepts, provided a contextualized translation. The other, unaware of the objectives, provided a more literal translation.

Reconciliation sought to detect errors and disagreements, carried out by a third translator, a native of Brazil and fluent in English. This translator ensured the adequacy or suggested new translations, justifying the acceptance of the reconciled version.

Back-translation involved translating the reconciled version back into the original language, carried out by a native English translator without access to the scale information.

The review of the back-translation carried out by the main researcher, with the help of a translator, compared the previous versions, obtaining a prior harmonization to avoid disagreements in meaning between the languages and to clarify any necessary questions from the experts.[10]

To assess the quality of the version obtained for Brazilian Portuguese, the review was carried out by experts in the field, bilingual linguists who had knowledge of the method/theme and the target population (minimum 5 and maximum 40),[9] invited via e-mail. It was not necessary for these experts to be nurses, as this stage was one of equivalence analysis and content validation. The analysis included applicability and completion guidelines, allowing a version to be generated with changes.[9,11]

The 10 experts received the scale via an online form and were given seven days to assess agreement on the semantic, idiomatic, conceptual and experiential equivalence, clarity, pertinence and relevance of the final version for content validity. The equivalence analysis was carried out via Google Forms®, including an explanation of the study and questions about the profile, ICF and items in the versions (original, T1, T2, T1-2, R1). The option for suggestions was open only if the expert answered "I do not agree". The answers were collected and coded as "1" for "yes" and "0" for "no". The values were calculated using an Excel formula to obtain the degree of agreement. In the evaluation, the degree of correspondence was calculated by dividing the number of participants who agreed by the total, recommending a minimum agreement of 0.80.[6]

With the values obtained, the reviewers' comments were organized into a report for analysis. Two researchers analyzed the report in a meeting via Jitsi Meet®, adjusting the instrument as necessary. The adjusted instrument was then sent to the reviewers to confirm the changes, and the content analysis was carried out.

In order to analyze the evidence of content validity, 09 experts were consulted, and the items classified by the reviewers as "essential", "useful but not essential" or "not necessary". After coding the answers as "1" for positive and "0" for negative, the CVR (Content Validity Ratio) formula was applied. This made it possible to identify the level of proportional agreement between the experts on how many considered an item "essential", with a critical CVR of 0.778. In addition, the extent to which the instrument reflected the theoretical content was assessed, allowing for the exclusion or inclusion of

items and suggestions for changes. "CVR values range from -1 (perfect disagreement) to +1 (perfect agreement), with values above zero indicating that more than half of the panel members agree with an essential item."[11]

Pre-finalization consisted of an analysis of the recommendation reports and revisions with the aim of identifying any errors, clarifying and guiding the reviewers.[10] In finalization, a reviewer native to the target language evaluated the final version and provided the literal and polished back-translation for each item, explaining the choice and justifying divergences from the recommended version.[10]

The harmonization carried out by the researcher consists of a preliminary assessment of the accuracy and equivalence of the final translation in relation to the final back-translations. If there are any inconsistencies or doubts, the reviewer from the previous stage is consulted again.[10] In addition, the formatting, typesetting and proofreading of the final version must follow the recommendations of the reviewers,[10] ensuring a professional revision of the Portuguese.

The final version underwent a cognitive test to check for errors and ensure comprehension. Thirty nurses[9] took part through a convenience sample of H1, considered validated by the Patient-Reported Outcomes Measurement Information System (PROMIS®) guidelines: Standards document.[10] This was followed by an analysis of comments on difficulties in filling in the form. Items with ambiguities were reviewed by the lead researcher.

At the end of the test, the researcher carried out a critical analysis of the comments, summarizing the problems indicated by the participants. After this initial analysis, a form was sent out with questions to assess the participant's understanding of the instrument, with the following questions: Were there any items that were difficult to understand? Could you make any additional comments? Which statements were the most difficult to answer and why? Did any statements cause you embarrassment? If so, why? With these comments, solutions were proposed and the Brazilian version of the Career Anchors Self-Assessment was obtained.[10]

The study complied with the ethical precepts of the resolution governing research with human beings in Brazil, through the approval of Research Ethics Committee of the Anna Nery School of Nursing of the Federal University of Rio de Janeiro (opinion 2.916.938/ Certificate of Presentation for Ethical Appraisal: 98395018.0.0000.5238).

Results

T1 consisted of the translated instrument with contextual equivalence and T2 reflected the literal translation. Reconciliation was carried out, resulting in version T1-2, and this, after a new translation, resulted in version R1. Meanwhile, the revision of the back-translation was carried out by the researcher with the support of a native translator (Chart 1).

The first translator evaluated each item of the instrument, classifying the 40 items evaluated as "very well understood" (57.5% of the items) and "very well understood" (42.5%), not adding any comments on the translation of the items. The second, 87.5% were rated as "very well understood", but 12.5% as "poorly understood". Questions arose about the use of terms: "my own business", uncommon in nursing; 'career', which could be replaced by 'profession or job' in some items; 'general manager', as an option to translate 'functional manager or senior technician', little used in nursing; and 'supervisor', as an alternative to 'high-level manager'.

Ten reviewers took part in the equivalence analysis, 80% of whom were bilingual, 20% had an understanding of the language, 60% were nursing assistants, 60% were occupational health researchers, 20% management, 50% ATC method, and 20% linguists. In terms of qualifications: 40% had a doctorate, 40% a master's degree, 10% a postgraduate degree and 10% a bachelor's degree. Geographically, 60% were from Rio de Janeiro, 30% from São Paulo and 10% from the Federal District.

Excel was used to draw up a report that allowed the adapted questions to be defined, which were then organized into another form for confirmation by the reviewers. After a five-week wait, 70% of the reviewers responded to the confirmation of the changes, and then the content analysis was carried out.

Chart 1. Review of the back-translation compared to the original English version of the Career Anchors Self-Assessment instrument

Terms in the original version	Terms in the back-translated version	Analysis by researcher + translator
For each of the forty items that follow, rate how true that statement is for you.	For each of the following forty items, evaluate how true this statement is to you.	There is no loss of meaning
Rate it as 1 if it is never true for you	Rate as 1 if it has never been true for you	There is no loss of meaning
Rate it as 2 if it seldom true for you	Rate as 2 if it has rarely been true for you	Synonym for "seldom", without affecting the meaning.
Rate it as 3 if it is often true for you	Rate as 3 if it has usually been true for you	there is no loss of meaning, because it is synonymous with "often"
Note: This is not a standardized test. The items are designed to help you think about what you want out of your career, what your desired areas of competence are, and what most satisfies you. You are not being scored by someone else, and your scores are not being compared to those of others. You are trying to figure yourself out, so try to be as honest with yourself as possible. On page 7 you will find a scoring sheet. You can transfer your self-rating for each item directly onto the scoring sheet.	Observation: This is not a standardized test. The items are designed to help you think about what you expect from your career, what your desired areas of expertise are, and what most satisfies you. You are not being evaluated by someone else and your scores will not be compared to that of others. You are trying to get to know yourself, so try to be as sincere as possible. On page 7 you will find a score sheet. You can transfer your self-assessment for each item directly onto the score sheet.	Despite some changes to certain words, such as "expertise, evaluated, to that of, sincere..." there is no loss of meaning.
2. I am most fulfilled in my work when I have been able to integrate the efforts of others toward a common task.	2. I feel most accomplished in my work when I can join other people's efforts in a common task.	Synonymous with "fullfilled". In this term there is a loss of meaning, because join is more often used in the sense of bringing people together, like I can join you at this table.
4. I am always on the lookout for ideas that would permit me to start my own enterprise.	4. I am always looking for ideas that allow me to start my own business	With no loss of meaning, but grammatically incorrect, it is necessary to insert the word would
10. I dream of being in charge of a whole organization.	10. I dream of heading an entire company.	Head is a word often used in the context of a managerial position, running your own company, thus there is no loss of meaning
12. I would not stay in an organization that would give me assignments that would jeopardize my job security.	12. I would not stay in a company that gave me tasks that compromised my safety at work.	In this sentence, although the meaning is maintained, the tense is not appropriate, in the original instrument it is a hypothetical question so the "would" I would not stay in a company that could give me tasks that would jeopardize my safety. Just fix "gave" with "would give" and "compromised" with "would compromise".
30. Becoming a general is more attractive to me than becoming a senior functional manager in my area of expertise.	30. Becoming a general manager is more attractive to me than becoming a technical manager in my area of expertise.	"Senior functional" is more related to being a professional with experience and being a reference in a certain area, I believe that 'referece or experienced professional' is more appropriate here, it has a slight loss of meaning.

As for the values assigned for the equivalence analysis, there were 83 responses with a grade of 1.59 with 0.9, 19 with 0.8 and 7 with 0.7 (2 of which were for statement 3). Satisfactory results were observed up to 0.7, so there was no need to exclude items at this stage. Analysis was carried out on statements 03, 06, 10, 26, 31 and 39. In statement 03, idiomatic and semantic equivalence was adjusted; 06 experimental equivalence was adjusted; 10 experimental, idiomatic and semantic equivalence was considered; 26 idiomatic, experimental, conceptual and semantic equivalence was considered; 31 idiomatic, conceptual and semantic equivalence was considered; and 39 experimental and semantic equivalence was considered.

Reviewers from occupational health, management and administration were invited to take part in the content analysis. Ten accepted, nine responded (all from the area of occupational health) and 17 did not respond. We waited four weeks and finished the analysis, as we had reached the minimum number of reviewers for this stage. Based on the calculations, the study continued. The CVR calculation revealed that 100% of the reviewers evaluated the instrument and had a degree of agreement above 0.778 (Table 1), and there were no exclusions.

Contact was made with the participating reviewer and the items were checked separately for completion. Final adjustments were made regarding the construction of the final version of the instrument, inconsistencies and doubts were checked for harmonization of the instrument and final identification of the items. The form for administering the cognitive test was then constructed. After the adjustments, the reviewers agreed 100% with the changes and the cognitive test was applied. Thirty nurses took part in the cognitive test and were asked to respond to the adjusted instrument and provide comments on the difficulties encountered. In the initial analysis, no relevant comments were made about the analysis of the instrument (Chart 2).

The comments refer to the last question on the calculation, made adjustments to the wording and formulation of the profile question. There was

Table 1. Evidence of validity related to the content of the "Career Anchors Self-Assessment", according to content validity ratio values

Item	Clarity CVR	Representativeness CVR	Scope CVR	Mean CVR
i1	1	0.777	0.777	0.851
i2	0.777	0.777	0.777	0.777
i3	0.333	0.555	0.777	0.555
i4	1	0.777	0.555	0.777
i5	0.555	0.777	0.555	0.629
i6	0.777	0.777	0.777	0.777
i7	1	0.777	0.777	0.851
i8	1	0.777	0.777	0.851
i9	1	0.777	0.777	0.851
i10	0.777	0.555	0.555	0.629
i11	0.777	0.777	0.555	0.703
i12	0.333	0.777	0.777	0.629
i13	1	0.777	0.777	0.851
i14	0.555	0.777	0.777	0.703
i15	0.777	0.777	0.777	0.777
i16	0.555	0.777	0.777	0.703
i17	0.555	0.555	0.777	0.629
i18	0.555	0.777	0.555	0.629
i19	0.555	0.777	0.777	0.703
i20	0.555	0.777	0.555	0.629
i21	1	0.555	0.777	0.777
i22	1	0.777	0.777	0.851
i23	0.777	0.777	0.777	0.777
i24	0.777	0.777	0.777	0.777
i25	0.333	0.777	0.555	0.555
i26	1	0.777	0.777	0.851
i27	0.777	0.777	0.777	0.777
i28	0.555	0.777	0.777	0.703
i29	0.777	0.777	0.777	0.777
i30	0.777	0.777	0.777	0.777
i31	0.777	0.555	0.777	0.703
i32	0.555	0.777	0.777	0.703
i33	0.555	0.777	0.777	0.703
i34	0.777	0.777	0.555	0.703
i35	0.777	0.777	0.777	0.777
i36	1	0.777	0.777	0.851
i37	0.777	0.777	0.777	0.777
i38	0.777	0.777	0.555	0.703
i39	0.777	0.777	0.777	0.777
i40	1	0.777	0.777	0.851
CVR médio	0.749	0.749	0.727	0.742

Critical value for 9 experts : CVR ≥ 0,778

no feedback on the understanding of each item. A new analysis form was needed, which yielded the following comments and solutions from 13 participants. Participants P5, P15 and P25 had no difficulties, while P22, P8 and P25 questioned items 07, 10, 17 and 42, indicating that they seemed to have the same meaning. In response, the items mentioned were completed to indicate

Chart 2. Comments from participants in the 1st application of the Career Anchors Self-Assessment tool

Participant	Instrument/Item	Comment
P34	Instruments in general	I had a lot of doubts, difficulty answering some questions and I found this questionnaire very tiring. It didn't do anything for me.
P11	1 - Go back to the previous page (questions) and tick the 5 items that most represent your current professional desires; 2 - Copy and paste the items into the comment below; 3 - That's it, now you just have to wait for us to send you your score via your registered e-mail address.	I didn't understand the previous question
P1	1 - go back to the previous page (questions) and tick the 5 items that most represent your current professional desires; 2 - copy and paste the items into the comment below; 3 - that's it, now you can wait for us to send you the score by registered e-mail	There was no difficulty. That last question isn't to go back to the previous page.
P28	1 - Go back to the previous page (questions) and tick the 5 items that most represent your current professional desires; 2 - Copy and paste the items into the comment below; 3 - That's it, now you just have to wait for us to send you your score via your registered e-mail address.	I'm not sure how to answer the last question.
P13	Instruments in general	No
P6	Instruments in general	I find this type of questioning a bit vague, but an interview explaining the items is more precise.
P22	Instruments in general	I was a little confused by some of the questions because they are similar to others
P23	1 - Go back to the previous page (questions) and tick the 5 items that most represent your current professional desires; 2 - Copy and paste the items into the comment below; 3 - That's it, now you just have to wait for us to send you your score via your registered e-mail address.	In the statement "go back to the page/questions" you could be more specific, e.g. reviewing the questions... because I understood a priori that you were only supposed to go back to the last or penultimate question.
P24	Instruments in general	None
P8	Instruments in general	I found some similar questions, but they were all easy to answer
P16	1 - Go back to the previous page (questions) and tick the 5 items that most represent your current professional desires; 2 - Copy and paste the items into the comment below; 3 - That's it, now you just have to wait for us to send you your score via your registered e-mail address.	I couldn't go back to the previous page and copy and paste.
P35	1 - Go back to the previous page (questions) and tick the 5 items that most represent your current professional desires; 2 - Copy and paste the items into the comment below; 3 - That's it, now you just have to wait for us to send you your score via your registered e-mail address.	I found the previous question confusing
P18	Profile; 1 - go back to the previous page (questions) and mark the 5 items that most represent your current professional desires; 2 - Copy and paste the items into the comment below; 3 - That's it, now you just have to wait for us to send you your score via your registered e-mail address.	I work in two jobs, one CLT (36 hours) and the other Statutory (30 hours). Another difficulty I had was selecting only 5 questions. I had to filter them out of 12.

the "Lifestyle" anchor and the term "only" was removed, as it was difficult to understand. P26 discussed which questions indicated that context influences the response in decision-making and that questions 19 and 20 seemed similar, with no conceptual difference. P33 commented: "The alternatives with the word 'only' (8, 10, 16, 19, 20, 23, 26, 32) were more difficult. This word makes the statement very restrictive. And as a solution: Item 19 and 20 were separated in order to comply with the analysis; however, it was decided to exclude item 20. In Item 40, the term "total" was removed. In Item 9, the challenges are indicated as the most difficult problems in working as a nurse and may be different for each person. Item 14 is part of the Entrepreneurial Creativity Anchor and is aimed at nurses opting for an entrepreneurial career, outside the CLT and competitive examination systems. P7 commented: "I would like to make an observation regarding the items containing the word 'supervisor'. I think it could be replaced, or added, by the term manager. And the solution: Check with the reviewers about the possibility of changing supervisor to manager. At the end of the stages, the instrument was renamed "Self-assessment of career anchors", because the reviewers warned that replacing "career anchors" with "professional identity" could affect the idea of the underlying theory.

Discussion

Cross-cultural adaptation, a rigorous method with 11 stages, took 14 months for the study in question, which was completed in Portuguese.[10] A study carried out in Brazil using the same method lasted 10 months and followed the same methodological rigor aimed at guaranteeing the quality of the translation process.[5]

A study using the PROMIS method began with well-structured translations, adjusting only the title of the instrument to align it with the main author[12] In contrast, in the study in question, the terms of the scale remained unchanged. Another study expanded the translated versions by adding a third translation and synthesizing them, followed by back-translation by two bilingual translators.[13] However, other studies[5,14,15] opted for two translations, with no significant differences in the comparison between the original and translated versions.[12]

The notes were reviewed by the author with a native translator for adjustments to the back-translation and the reconciled version, as described in the results. Most of the changes did not affect the meaning of the items. A study on the translation of instruments showed that this process identifies words and expressions that may not be suitable for the new context, requiring adjustments to ensure access and understanding by the new target audience.[13,16]

As an American instrument widely discussed in the administration,[17] some recurring terms in the instrument made it difficult for participants to understand, requiring adjustments in the experts' analysis. Few changes were made in the translation and back-translation stages, but they were essential in order to understand terms that are uncommon in nursing.

In analyzing the content of the instrument, the expert review includes equivalence analysis and content validation,[18] which result from qualitative and quantitative evaluation aimed at making adjustments to ensure understanding by nurses. Experts from different areas took part, including health, nursing and career anchors, despite the difficulty in finding experts in the latter area.

Despite the critical value of CVR ≥0.778 for 9 experts, few items deviated from this value. The discussion between the experts and the author was crucial, as the exclusion of items could have an impact on the understanding and calculations of the final score. This stage was prolonged due to challenges in the selection process and the participation of the experts.

In line with this, one study[12] identified a CVR of 0.741, requiring changes in line with the experts' suggestions, in order to guarantee the comprehension of the items. Another study, which used the CVI calculation to analyze agreement, obtained a range of 1 to 0.833.[13] Another study which also used the CVR obtained a value of 0.94.[14] Thus, as in the study in question, the items which presented

a value of less than 80% were reviewed with the experts for necessary adjustments.[15]

As with the PROMIS method,[10] authors used expert review to validate the instrument translated into nursing, with 10 experts, achieving a level of agreement of 50%.[18,19] While the study in question obtained an agreement above 0.5, another study achieved an overall agreement rate of 88.7%, above the expected average.[12] In a third study, eight experts had an average agreement rate of 100% for semantic equivalence, 98.75% for idiomatic equivalence, 96.25% for experiential equivalence and 97.5% for conceptual equivalence. While a validation study of a technological instrument set the level of agreement at over 80%.[14,20,21]

The cognitive test, with 30 participants, revealed that a few items on the scale[9] presented minimal problems, which did not make it impossible to complete. Adjustments were made to remove ambiguous terms. The online version allowed for significant adherence, despite the COVID-19 restrictions in force during the stage.[22]

A cognitive test study involved 31 health professionals, all from southeastern Brazil. Of these, 90% found no difficulties in understanding the instrument's items.[12] Another adaptation study involved 30 participants in the pre-test.[14] Although the evidence suggests 30 to 40 respondents, one study reached 89 participants in this phase.[13]

The study had the active participation of reviewers and translators collaborating with the analysis and reflection together with the main researcher. However, the limitation includes the form of application, preventing confirmation of equivalence with the printed version of the instrument and qualitative analysis of the comments. The specific profile of nurses working in hospitals makes it difficult to generalize to other professions. It is worth noting that the construct validation and reliability phase is still being finalized (Appendix 1).

Conclusion

The Brazilian version, called Career Anchors Self-Assessment, has good translation quality and evidence of content validity. The study achieved the proposed objective, carrying out the 11 stages of cross-cultural adaptation of the Career Anchors Self-Assessment into the Career Anchors Self-Assessment. The translated version can be used by hospital nurses, although further analysis is still needed for other evidence of validity.

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Collaborations

Nascimento FPB, Sousa KHJF, Santos KM, Silva RM, Gallasch CH, Abreu AMM and Zeitoune RCG contributed to the conception of the study, analysis and interpretation of the data, writing of the article, relevant critical review of the intellectual content and approval of the final version to be published.

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Appendix 1. Final version of the instrument

Autoavaliação das Âncoras de Carreira

1. Quero ser tão bom/boa no que faço, que outras pessoas procurarão meu conselho de especialista.
2. Eu me sinto mais realizado(a) em meu emprego quando consigo unir os esforços de outras pessoas em uma tarefa comum.
3. Sonho ter uma carreira que me permita trabalhar do meu jeito.
4. Sonho ter uma carreira que me permita trabalhar no meu horário.
5. Estou buscando ideias que me ajudem a começar meu próprio negócio.
6. Segurança e estabilidade são mais importantes para mim do que liberdade e autonomia.
7. Prefiro sair da instituição a ser colocado(a) em um cargo que comprometa a capacidade de atender às minhas questões pessoais e familiares.
8. Me sentirei bem-sucedido(a) em minha carreira se eu sentir que realmente contribui para o bem-estar da sociedade.
9. Sonho com uma carreira na qual serei sempre desafiado(a) por problemas cada vez mais difíceis.
10. Me sentirei bem-sucedido(a) em minha carreira se eu puder desenvolver minhas habilidades para um nível de competência cada vez maior.
11. Eu sonho em ser supervisor de uma instituição.
12. Sinto-me mais realizado(a) em meu emprego quando tenho total liberdade para definir minhas tarefas, horários e procedimentos.
13. Eu ficaria em uma instituição que me atribuísse tarefas que não comprometessem minha segurança no trabalho.
14. Ter o meu próprio negócio é mais importante para mim do que ser um(a) supervisor na empresa de outra pessoa.
15. Eu me senti mais realizado(a) em minha carreira quando pude usar meus talentos para ajudar os outros.
16. Me sentirei bem-sucedido(a) em minha carreira se tiver enfrentado e superado desafios cada vez mais difíceis.
17. Sonho com uma carreira que me permita conciliar minhas necessidades pessoais, familiares e profissionais.
18. Tornar-me um profissional de referência na minha área de especialização é mais atrativo do que me tornar um supervisor geral.
19. Me sentirei bem-sucedido(a) em minha carreira se tiver autonomia para definir o meu trabalho.
20. Normalmente procuro empregos em instituições que me deem uma sensação de estabilidade e segurança.
21. Sinto-me mais realizado(a) quando sou capaz de construir algo que é fruto da minha habilidade e esforço.
22. Me sentirei bem-sucedido(a) se me tornar um(a) supervisor de alto nível em uma instituição.
23. Usar meus talentos para fazer do mundo um lugar melhor para se viver é o que norteia minhas decisões profissionais.
24. Sinto maior realização profissional quando sou capaz de resolver problemas aparentemente insolúveis ou superar situações aparentemente impossíveis.
25. Me sinto bem-sucedido(a) na vida se for capaz de equilibrar minhas necessidades pessoais, familiares e profissionais.
26. Sonho com uma carreira que me permita sentir estabilidade.
27. Sonho com uma carreira que me permita sentir segurança.
28. Prefiro sair da instituição a aceitar um emprego que me tire da minha área de especialização.
29. Equilibrar as demandas da minha vida pessoal e profissional é mais importante para mim do que uma posição de supervisor de alto nível.
30. Sonho em ter uma carreira que traga uma contribuição real para a sociedade.
31. Me sentirei bem-sucedido(a) profissionalmente se tiver meu próprio negócio com base em minhas ideias e competências.
32. Tornar-me um supervisor geral é mais atraente para mim do que tornar-me um supervisor técnico na minha área de especialização.
33. Ter a chance de fazer um trabalho do meu jeito, sem regras e restrições, é muito importante para mim.
34. Prefiro oportunidade de emprego que realmente desafiem minhas habilidades de solução de problemas e competitividade.
35. Sonho em começar e construir meu próprio negócio.
36. Prefiro sair da instituição a aceitar um cargo que prejudique minha capacidade de servir aos outros.
37. Sinto-me mais realizado(a) em meu emprego quando consigo usar minhas habilidades e talentos especiais.
38. Prefiro sair da instituição a aceitar um cargo que me afaste do caminho para a gerência geral.
39. Sinto-me mais realizado(a) em minha vida profissional quando percebo que tenho total segurança financeira e estabilidade no trabalho.
40. Prefiro sair da instituição a aceitar um emprego que reduza minha autonomia e liberdade.
41. Busquei oportunidades de emprego que tivessem o mínimo de interferência com as minhas questões pessoais e familiares.
42. Trabalhar com problemas difíceis de resolver é mais importante para mim do que alcançar uma posição gerencial de alto nível.