Revista Brasileira de Enfermagem
REBEn

SUPPLEMENTARY EDITION 3
PSYCHIATRIC NURSING AND MENTAL HEALTH

ORIGINAL ARTICLE

Cross-cultural adaptation of the University Student Depression Inventory for Brazil

Adaptação transcultural do University Student Depression Inventory para o contexto brasileiro

Adaptación transcultural del University Student Depression Inventory para Brasil

Fernanda Pâmela Machado[I]
ORCID: 0000-0002-2446-1341

Marcos Hirata Soares[I]
ORCID: 0000-0002-1391-9978

[I]*Universidade Estadual de Londrina. Londrina, Paraná, Brazil.*

How to cite this article:
Machado FP, Soares MH. Cross-cultural adaptation of the University Student Depression Inventory for Brazil. Rev Bras Enferm. 2022;75(Suppl 3):e20220004. https://doi.org/10.1590/0034-7167-2022-0004

Corresponding author:
Fernanda Pâmela Machado
E-mail: fer.machado3@hotmail.com

Submission: 01-23-2022 **Approval:** 06-12-2022

ABSTRACT

Objectives: to adapt the University Student Depression Inventory for Brazil. **Methods:** we used 6 methodological stages: initial translation, translation synthesis, back-translation, expert committee, pre-final version testing and document submission to the scale authors for assessing the adaptation process. The judges were 2 methodologists, 1 health professional and 2 translators. For the pre-test, 30 undergraduate and graduate students participated. **Results:** the data were analyzed by *Excel*®, resulting in satisfactory content validity, a scale composed of 30 items, 3 domains and a total CVC of 0.91. Language clarity and practical relevance had a CVC of 0.91 and theoretical relevance of 0.90. **Conclusions:** the USDI-BR was cross-culturally adapted for Brazil, showing evidence of satisfactory content validity. After an analysis of reliability and convergent validity to be tested in future studies, multidisciplinary teams will be able to apply this scale to Brazilian students.

Descriptors: Pandemics; Validation Study; Education Higher; Students; Depression.

RESUMO

Objetivos: realizar a adaptação do *University Student Depression Inventory* para o Brasil. **Métodos:** foram utilizados 6 estágios metodológicas: tradução inicial, síntese das traduções, tradução reversa, comitê de especialistas, teste da versão pré-final e envio da documentação aos autores originais para avaliação do processo de adaptação. Os juízes foram 2 metodologistas, 1 profissional de saúde e 2 tradutores. Para o pré-teste, participaram 30 alunos de graduação e pós-graduação. **Resultados:** os dados foram analisados pelo *Excel*®, resultando em validade de conteúdo satisfatória, uma escala composta por 30 itens, 3 domínios e CVC total de 0,91. A clareza de linguagem e pertinência prática apresentaram CVC de 0,91 e relevância teórica de 0,90. **Conclusões:** o USDI-BR foi adaptado transculturalmente para o Brasil, apresentando evidência de validade de conteúdo satisfatória. Após análise de confiabilidade e validade convergente a ser testada nos próximos estudos, equipes multiprofissionais poderão aplicar essa escala em estudantes brasileiros.

Descritores: Pandemias; Estudo de Validação; Educação Superior; Estudantes; Depressão.

RESUMEN

Objetivos: adaptar el *University Student Depression Inven*tory para Brasil. **Métodos:** se utilizaron 6 etapas metodológicas: traducción inicial, síntesis de traducciones, traducción inversa, comité de expertos, prueba de la versión pre-final y envío de la documentación a los autores originales para evaluación del proceso de adaptación. Los jueces fueron 2 metodólogos, 1 profesional de la salud y 2 traductores. Para la preprueba participaron 30 estudiantes de grado y posgrado. **Resultados:** los datos fueron analizados por *Excel*®, resultando una validez de contenido satisfactoria, una escala compuesta por 30 ítems, 3 dominios y un CVC total de 0,91. La claridad del lenguaje y la relevancia práctica tuvieron un CVC de 0,91 y una relevancia teórica de 0,90. **Conclusiones:** el USDI-BR fue adaptado transculturalmente para Brasil, mostrando evidencias de validez de contenido satisfactoria. Después del análisis de confiabilidad y validez convergente para ser probado en futuros estudios, equipos multidisciplinarios podrán aplicar esta escala a estudiantes brasileños.

Descriptores: Pandemias; Estudio de Validación; Educación Superior; Estudiantes; Depresión.

ONLINE VERSION ISSN: 1984-0446

INTRODUCTION

Depression is estimated to be the leading cause of mortality in adolescents and may extend to disability-adjusted years of life. This disability can lead to several health and social problems, especially in young people and young adults (18 and 29 years). When faced with the uncertainties and challenges encountered as students, they develop intense mental suffering and, consequently, low academic performance due to their dysfunctions[1].

Depression is considered a common emotional disorder that causes distress and impairs psychic functioning. These dysfunctions may be related to depressive symptomatology in students, differing from clinical depression, found in the general population, and may also be observed in academia. Usually, in students, they are represented by cognitive, physiological, behavioral and motivational deficits, such as difficulty in managing and organizing time, activities, problem-solving and low skills in decision-making[2-3].

Some studies reinforce these findings. One, held in southern Brazil, highlights the attention to undergraduate students who presented higher rates of depression, mainly in the area of applied social sciences and humanities, linguistics, languages and arts[4]. Studies collected in PubMed, from various regions of the world, highlight that there was an increase in the number of cases of depression in undergraduate students, especially after the beginning of the COVID-19 pandemic[5-6].

With the pandemic, many studies have been conducted addressing depression in undergraduate students. A systematic review with meta-analysis, conducted in China, surveyed 10 different studies related to the coping style of undergraduate students during the COVID-19 pandemic. In all, there were 24,234 undergraduate students. Of these, 25% had mild depression, 7%, moderate depression and 2%, severe depression[7]. Even with a not so significant index, a recent study highlighted that young adults, aged 18 to 24 years, present greater risks of depression when subjected to situations of pressure, earthquakes, isolation, among other situations[8].

Glimpsing the reality of young adults in pandemic times, instruments that could be used in this population were surveyed in Brazil, but scales with good reliability were not found, with the purpose of identifying depressive symptoms in students, with only scales intended for application in the general population. Currently, there are several instruments for screening depressive symptoms, and according to the authors of the original scale validated in this study[2], there are characteristics of this symptomatology that are little noticeable in instruments aimed at the general public, thus being one of the factors that motivated the search for instruments aimed at young undergraduate and graduate students, mainly.

As a result, in what was identified in the literature, related to the increase in students diagnosed with depression, there was a concern to find a specific scale for this population that could be validated for Brazilian Portuguese. This scarcity led to the measuring instrument University Student Depression Inventory (USDI), from Australia, with 30 items. In 2013, the authors[2] reviewed the instrument psychometric properties, attesting good internal consistency (0.95).

Translation and adaptation of USDI, aimed at Brazil, will encourage health professionals, multidisciplinary teams and nurses to use an instrument that previously did not exist for this context, in order to identify depressive symptoms in this population. Above all, the greatest beneficiaries will be students and health services, who will be able to use an instrument to identify depressive symptoms. Thus, health professionals and multidisciplinary teams can create strategies to promote and prevent students' mental health, minimizing cases of major depression and suicidal ideation[6,8].

Considering the historical knowledge of the ineffective detection of depression in students, the increase in cases resulting from events related to the pandemic, the negative impact on students' lives[9-11] and the absence of instruments aimed at this specific population in Brazilian culture, studies that aim to accomplish this purpose are essential.

OBJECTIVES

To cross-culturally adapt the University Student Depression Inventory for Brazil.

METHODS

Ethical aspects

This research was approved by the Institutional Review Board in 2020, in addition to complying with Resolution 466 of 2012. All pilot test participants and judges received and signed an Informed Consent Form (ICF) electronically via platform *Google* ® through *Google Forms*.

Study design, place and period

This is a methodological study, guided by the STrengthening the Reporting of OBservational studies in Epidemiology (STROBE), carried out with undergraduate and graduate students from a public university in southern Brazil, from January to July 2021.

Population or sample, inclusion and exclusion criteria

For the pre-test, the study population consisted of 30 undergraduate and graduate students from a public university. Students over 18 years of age and enrolled in the undergraduate or graduate course were included. Students under administrative or health leave were excluded.

Instrument

USDI was developed to measure depression among undergraduate students. The authors created items based on the experiences of assisting in cases of depression of students and university advisors[12]. They identified that, using clinical depression scales in students, one can present a lower or erroneous accuracy, since the depressive symptomatology in students may differ from the general population's clinical depression[2,12].

The USDI elaboration process resulted in a 30-item inventory on student depression, with three interrelated subscales: lethargy, cognitive/emotional and academic motivation. The *lethargy* factor is represented by items 1, 3, 4, 8, 10, 24, 27, 29, 30. This factor is characterized by a combination of physiological, behavioral

and cognitive manifestations. Some items reflect low energy consumption and physical fatigue. On the other hand, the items also reflect mental exhaustion and inability to focus on tasks[12].

The *cognitive/emotional* factor is represented by items 2, 5, 6, 9, 11, 14, 18, 20, 21, 22, 23, 25, 26, 28. They represent cognitive symptoms, emotional symptoms and social withdrawal. The *cognitive* items on this scale include suicidal ideation, low self-assessment, and pessimism. The *emotional* items on this scale include items such as sadness, emotional emptiness, and anhedonia[12].

The *academic motivation* factor is composed of items 7, 12, 13, 15, 16, 17, 19. It is characterized by motivation and procrastination related to the study. This factor is not found in other depression scales, because it is an item that represents depressed students. The USDI elaboration process had special resources relevant to students, such as the exclusion of items about severe depression not related to students' depression. This subscale contains items that are often experienced by depressed students and are rarely included in depression scales[12].

USDI is a 5-point Likert scale. Respondents should indicate how often they have experienced each item in the last 2 weeks (e.g., "my energy level is low"), such as 1 (Never), 2 (Rarely) 3 (Sometimes), 4 (Often) 5 (All the time). The scale produces a score between 30 and 150, where higher scores indicate high levels of student depression. Cronbach's alpha coefficient of this scale was 0.95[2,12].

Study protocol

Before starting the cross-cultural adaptation stages of USDI, a literature review was carried out in the databases, where it was possible to identify studies of the original instrument's culture related to depression in undergraduate students, confirming that depression in this population is considered a public health concern in other countries as well as in Brazil. These studies also highlight the importance of instruments aimed at young adults with good reliability for the Brazilian version[13-17].

At this stage, the authors contacted the scale authors, requesting approval to carry out the validation and cross-cultural adaptation study in Brazil, thus obtaining authorization to conduct the study in Brazil.

For cross-cultural adaptation, we chose to use the methodological stages proposed by Beaton et al.[18], which are divided into 6 stages, as shown in Figure 1.

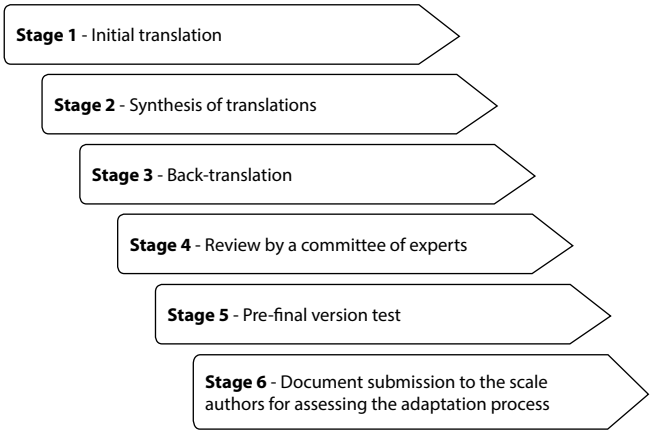

Figure 1 - Illustration of translation and adaptation process descriptions suggested by Beaton et al.[18], Londrina, Paraná. Brazil, 2021

Stage 1: Initial translation

Translation was performed from English to Brazilian Portuguese. For translation, two different bilingual translators (Portuguese and English) were requested, who had experience with translations and a license to translate (Translator 1 and Translator 2). Thus, it resulted in two distinct translations, translation 1 (T1) and translation 2 (T2).

The chosen translators have different backgrounds. Translator 1 was aware of the concepts examined in this questionnaire. He holds a master's degree from the University of Toledo, Ohio, and a PhD from the University of Sidney, in addition to translating for more than 20 years. Translator 2, unlike Translator 1, was not aware of the concepts examined, had a background in the administrative area and has been carrying out translations for more than 30 years. This first translation was reported to the scale authors, but they did not list any changes.

Stage 2: Syntheses of translations

At this stage, due to the coronavirus pandemic, an adaptation of the *Beaton* et al.[18] recommendations was performed. A meeting with Translators 1 and 2 and a third person was held virtually, and this third person was responsible for observing and recording the meeting. The observer was a translation company coordinator. She has expertise in translation and more than 40 years of teaching in the area of languages. The syntheses were analyzed by the translators and the third person, who clarified some doubts and divergences between the original version and T1 and T2. In consensus, translation 1-2 (T1-2) was obtained from this analysis, which constituted the first version of USDI for Brazilian Portuguese.

In this study, the option of answers to 1 to 5 was modified, since Rensis Likert[19], theoretical creator of the Summed Classification Method, describes that there is no format for measuring attitudes that includes the zero value, since there would be no null agreement, even if postulated as "totally disagree".

At this stage, as well as stage 1 translation, it was also reported to the scale authors, but without notes suggested by them.

Stage 3: Back-translation

Back-translation is performed in order to verify validity, highlighting gross inconsistencies or conceptual errors in translation[18]. The first version (T1-2) was sent to two independent translators. It was certified that the translators presented different profiles, were from an English-speaking country, had no prior contact with the original scale or information on the concepts explored. One of the translators majored in biology, and the other, in mathematics and statistics. Both were born in England, live in Brazil and have experience in back-translations.

This process originated back-translations 1 (BT1) and 2 (BT2). After this step, the researchers, together with another translator, analyzed the BT1 and BT2 versions, giving rise to the BT1-2 synthesis version. There were no divergences at this stage; therefore, this synthesis version was sent to the authors of the original scale, who approved it without changes.

Stage 4: Review by a committee of experts

At this stage, a committee of 5 judges was selected, as required by the guideline for the process of cross-cultural adaptation of self-report measures[18], with 2 methodologists, 1 health professional and 2 translators. The selection took place through *Plataforma Lattes* (a website with professionals' resumes), through the analysis of the resume of each professional who met the required criteria. In all, 6 professionals who had fluency in English, experience with methodological studies, more than 20 years of experience in the area of mental health (except translators) and accepted to be a judge voluntarily were listed. Only one judge refused to participate, totaling 5 judges.

The invitation to participate in the research occurred by electronic mail, accompanied by two Informed Consent Forms (ICF), in which one copy belonged to the judge and the other to the researcher. To assess the items, each judge received a kit (equal) composed of guidance on the study, how the sale interpretation is recommended, its scores, the sum, assessment of items and the conceptual definition of each factor of depressive symptomatology according to the original version.

For expert assessment, the instrument was placed in a table of 9 columns. 1st column: original version and synthesis version of 2 translations (T1-2); 2nd column: synthesis version of 2 back-translations; 3rd column: domain to which that item referred; 4th column: language clarity (LC); 5th column: theoretical relevance (TR); 6th column: practical relevance (PR); 7th column: theoretical dimension (TD); and 8th column: option to make some observation in relation to the item. In these columns, the judges had to assign a grade from 1 to 5 (1 - Very little, 2 - Very little, 3 - Medium, 4 - A lot and 5 - Very much).

The judges scored from 1 to 5 regarding LC, which considers the language used in the items, considering the corresponding population's characteristics. Regarding PR, each item was designed to assess the concept of interest in a given population. For TR, the degree of association between the item and theory was considered. In DT, the adequacy of each item to the theory studied was investigated. This method has been applied by other studies in mental health, such as a study carried out in 2013[20].

Stage 5: Pre-final version test

This step verified the instrument relevance, adequacy and understanding by the target population (pretest). The USDI-BR pre-test took place by applying the instrument to a sample of 30 undergraduate and graduate students from a public university in southern Brazil in the first half of 2021. Data were collected by sending the questionnaires electronically via Google® through Google Forms. An invitation to students was sent via e-mail by the institution's coordination, and by the researchers, through social media (WhatsApp® and Instagram®).

At the end of the scale, so that students could answer and make observations regarding the scale questions, 8 questions were listed: 1 - Did the test seem to assess what you expected? If not, what was contrary to your expectations? 2 - Was the questionnaire impartial in what it sought to assess? If not, why? 3 - Regarding the test duration, comment on: A) The time it took to complete; B) The number of items; 4 - Did you guess on any test item? If yes, how many items? 5 - Did you employ any particular strategy to guess on or was it random? If so, what strategy did you use? 6 - Do you think your mental state somehow affected the test result? 7- Did you find any anxiety-generating or disturbing parts? Why? 8 - What is your overall impression of this test? What improvement suggestions would you highlight?[21].

Stage 6: Document submission to scale authors

At all stages, the scale authors were informed about the entire ongoing process. At the end, in stage 6, a report was sent to the scale authors and to a committees of judges, but without suggestions from both parties

Analysis of data results

The scores given by the judges in relation to TR, PR and TD, the method used to assess content validity, was the Content Validity Coefficient (CVC) calculation[18]. The CVC assesses agreement among judges. The agreement result shows whether there is content equivalence or not.

To calculate the mean (Mx), 5 judges' grades were used. $\sum_{i}^{j} = 1^{xj}$ represented the sum of the grades, and ^{j}, by using the formula: $M_x = \frac{\sum_i^j = 1^{xj}}{J}$.

To calculate the initial CVC of each item ($_i$CVC), the mean was obtained, in which the maximum value (V_{max}) was represented by 5 (maximum value scored by the judge), represented by the formula: $_{i}{}^{CVC} = \frac{M_x}{V_{max}}$. There is a high chance of bias, even if it is assessed by 5 judges. To clarify this statement, the error calculation ($_i$Pe) was performed for each item $_{i}{}^{Pe} = (\frac{1}{j})^{j}$.

To calculate the final Content Validity Coefficient ($_f$CVC), the following formulas were used: $_fCVC = {}_iCVC - {}_iPe$. $_i$CVC refers to the initial CVC. $_iPe$ concerns error calculation. $_iMcvc$ refers to the mean of the questionnaire item initial CVC. $_iMpe$ refers to the mean of the questionnaire item errors. The total Content Validity Coefficient ($_t$CVC) calculation was obtained by calculating the mean; for this calculation, the formula was used: $_iCVC$ *and* $_iPe$: $_tCVC = {}_iMcvc - {}_iMpe$.

After these calculations, it was identified that all items had CVC ≥ 0.80, considered one of the criteria to keep the item on the scale. The only change in relation to the original scale was the item score, which was from 0 to 5, being changed to 1 to 5. The scale with this change was sent to the authors, but they did not list considerations regarding the score modification. Therefore, there was no need to remove/change any item at this stage.

RESULTS

The pre-test sample consisted of 85.7% men and 14.3% women. Of these, 71.4% were aged between 20 and 23 years, 66.7% lived with family members and 91.4% did not fail any time in undergraduate or graduate courses.

Throughout the translation and back-translation processes, we can observe that the data and observations made by the judges did not present significant nonconformities, allowing the translated and back-translated versions to be sent for analysis by judges.

USDI's title and acronym were maintained as the original, adding only BR, becoming University Student Depression Inventory Brazil (USDI–BR), which refers to translation and adaptation for use in

Brazil. The mean time indicated by students to answer the questionnaire was 2 to 5 minutes. Below, idiomatic and semantic changes and the judges' agreement scores for the items will be presented.

Table 1 - Content validity criteria of each item of USDI-BR, final version of the cross-cultural adaptation for use in Brazil, Londrina, Paraná, Brazil, 2021

Item	Sentence		
	LC[1]	PR[2]	TR[3]
Fator 1 - Letargia			
01. Eu estou mais cansado do que o normal	0.92	0.96	0.96
03. Os desafios que encontro durante meus estudos me deixam esgotado (a)	0.88	0.84	0.88
04. O meu humor tem afetado a minha habilidade de realizar minhas tarefas	1.00	0.88	0.88
08. Eu não me sinto descansado mesmo depois de dormir	1.00	0.96	0.96
10. Meu nível de energia está baixo			
24. Meus estudos são interrompidos por pensamentos perturbadores	0.92	0.92	0.92
27. Eu não tenho a mesma energia de antes para estudar	1.00	1.00	1.00
29. Eu tenho tido dificuldade em me concentrar	0.96	0.96	0.96
30. Eu tenho levado mais tempo para fazer minhas tarefas diárias	0.88	1.00	1.00
Fator 2 - Cognitivo/Emocional			
02. Eu ando muito triste	0.92	1.00	1.00
05. Eu tenho pensado em me matar	0.96	0.96	0.96
06. Coisas que eu gostava de fazer não me interessam mais	0.92	0.96	0.96
09. Eu me pergunto se vale a pena continuar vivendo	0.88	1.00	1.00
11. Eu acho que a maioria das pessoas é melhor do que eu	0.84	0.92	0.88
14. Passo mais tempo sozinho (a) do que costumava	0.92	0.88	0.88
18. Eu me sinto tímido(a) quando estou com outras pessoas	0.96	0.96	0.96
20. Eu me sinto inútil	1.00	1.00	1.00
21. Eu me sinto decepcionado (a) comigo mesmo	1.00	1.00	1.00
22. Eu me sinto emocionalmente vazio(a)	1.00	0.96	0.96
23. Eu sinto que não consigo controlar minhas emoções	0.96	0.88	0.88
25. Eu sinto que não tenho nenhum futuro	0.88	0.96	0.96
26. Eu não lido bem com as coisas	0.84	0.88	0.88
28. Ninguém se importa comigo	1.00	1.00	1.00
Fator 3 - Motivação Acadêmica			
07. Eu não tenho frequentado muito às aulas como antes	0.88	0.92	0.88
12. Eu não sinto vontade de frequentar as aulas	1.00	0.96	0.92
13. Não faz mais sentido ir para a universidade	0.96	0.96	0.88
15. Eu não acho os estudos tão interessantes quanto eram	0.92	0.92	0.88
16. Eu tenho dificuldades para concluir as tarefas de estudo	0.88	0.84	0.72
17. Eu tenho dificuldades para conseguir iniciar tarefas	0.96	0.84	0.80
19. Eu não tenho motivação para estudar	1.00	0.96	0.92
Total (CVC)[4]	0.91	0.91	0.90

[1]LC – language clarity; [2]PR – practical relevance; [3]TR – theoretical relevance; [4]CVC – Content Validity Coefficient.

Idiomatic and semantic changes

The USDI header translation was presented as follows "*a frequência de quando se sentiu nas suas últimas duas semanas*"; however, in the opinion of a judge, it was suggested that a direct object be added, being as follows "*Com que frequência se sentiu nas últimas DUAS semanas*." In T1, the following descriptions were suggested for the frequency of each item: 1 - Never, 2 - Rarely, 3 - Sometimes, 4 - Often and 5 - Always. However, T2 suggested for item 5 to use "5 - All the time", being by common agreement of all judges, researchers and the original scale authors.

In items 1, 2, 5, 7, 8, 15, 16, 18, 20, 27, 29 and 30 of T1 and 2, according to the original version, the result of sentences that started with unstressed oblique pronoun was obtained. After the judges' assessment and everyone's consensus, it was decided to start all these items with a personal pronoun in the first person singular "I...". In item 7, T1 and T2 were "*Não tenho ido muito às aulas como antes*". The judges suggested adding the personal pronoun and the word "*frequentado*", as follows: "*Eu não tenho frequentado muito às aulas como antes*".

In question 9, the judges suggested changing "*Eu me questiono se vale a pena viver*" to "*Eu me pergunto se vale a pena continuar vivendo*". In item 12, "*Eu não sinto vontade de estar em aulas*" was replaced by "*Eu não sinto vontade de frequentar as aulas*". In item 14, it was suggested to change "*Tenho passado mais tempo sozinha (o)*" to "*Passo mais tempo sozinho (a) do que costumava*".

In item 17, "*Tenho dificuldade em iniciar minhas tarefas*" was replaced by "*Eu tenho dificuldades para conseguir iniciar tarefas*". Previously, in item 23, the translation was "*Sinto que não tenho conseguido controlar minhas emoções*". After analysis by the judges, it was decided to replace with "*Eu sinto que não consigo controlar minhas emoções*", and item 24, which was "*Meus estudos são interrompidos por pensamentos distrativos*", was replaced by "*Meus estudos são interrompidos por pensamentos perturbadores*".

In the original version of USDI, in item 16, the scale authors used the term "*study tasks*". When back-translation was performed, the judges suggested modifying the word to "*homework*".

Agreement scores

Table 1 shows that the ᵗCVC of USDI-BR, in the parameters assessed by the judges, it was 0.91 for LC, 0.91 for PR and 0.90 for TR.

At the end of the six stages, which are proposed for translation and cultural adaptation of USDI-BR, the scale remained with 30 items. Only item 17 had a score of 0.80 in relation to TR. The average of each item assessed by the five judges showed a ᵗCVC of 0.94. The means of all judges' CVC were J1 (0.84), J2 (0.91), J3 (1.00), J4 (0.92) and J5 (0.91).

DISCUSSION

Assessing depression in young adults will always be challenging. Depression was identified as the "evil of the 21st century" resulting from generational impacts. It is inferred that this "evil" may have worsened with the COVID-19 pandemic[7,11]. In young adults, in the academic phase, it does not differ, as they are more prone to psychological distress and low academic performance related to depression[22].

In order to provide an effective assessment and think about prevention strategies for this population, health services must have validated instruments with good reliability to measure depressive symptoms in young adults, especially when it comes to subjective constructs, such as depression[23-24].

In a cross-cultural adaptation process, we must take into account the relevance of the concepts and domains understood by the original instrument in the new culture. We must also consider each item that was adapted by the original instrument, so that

these capacity terms represent such concepts and domains in the target population[18].

Following what is recommended, in the semantic assessment process, carried out by the judges, it was found that all items are understandable for all members of the population to which the instrument is intended. Therefore, with the semantic analysis of this study, we identified, in addition to the data collection instrument adequacy, important points that refer to the pandemic moment in Brazil, such as items 7 and 12.

Reviewing these items, the translated terms alluded only to face-to-face classes. As reported by some studies[25-26], classes were being held remotely, due to the global outbreak of coronavirus, which began in Brazil in February 2020. Thinking in this context, the judges highlighted the need to change the words "*ido às aulas*" to one that made sense for both face-to-face and remote classes. In this case, the word "*frequentar*" better fits this reality, which may become commonplace in the future, becoming more opportune for these items.

In the original version, T1 indicated that items 1, 2, 5, 7, 8, 15, 16, 18, 20, 27, 29 and 30 started with an unstressed oblique pronoun, however, as described by the Brazilian Academy of Languages, it is not recommended to start sentences with an unstressed oblique pronoun (*me, se, te, a, o, lhe, nos, vos, as, os, lhes*), the sentence should be started with the verb and, if feasible, the pronoun "*se*" should be placed afterwards[27]. In the USDI-BR version, all these items had the personal pronoun "*eu*" (I).

The judges scored, in addition to these changes related to item grammatical adequacy, some technical suggestions related to what they felt in relation to the item response, as there needed to be a relationship with the USDI-BR factors, in addition to making sense with depression in undergraduate students to which the scale construct refers. Research highlights the importance of students strengthening their emotional skills and using positive coping strategies[28].

Another study, in this case[29], carried out with graduate students from a *stricto sensu* program (master's degree and doctoral degree), describes that, of the 565 graduate students who participated in the research, 52.04% had symptoms of depression. These symptoms may have been exacerbated, due to the challenges that a graduate student may encounter, such as few bonds with colleagues, impaired family relationship, financial situation, non-significant academic work, among others. With the evidence of validity of this study, this identification will be possible to more accurately develop prevention and promotion strategies in mental health.

The literature highlights that the CVC is frequently used in the health area, as it is a method that measures the percentage or agreement regarding the instruments and their items. For it to be considered of good quality, it is necessary to have a CVC > 0.80. According to Table 1, only item 17, which refers to TR, obtained a CVC of 0.80, thus remaining at the minimum acceptable threshold[29].

In addition to presenting a CVC considered ideal, another significant point of the USDI-BR is application time. The literature highlights that an interviewee takes an average of 1 minute for each question and also considers that the apex of 45 minutes is ideal to balance accuracy and quality[30]. In this study, 30 respondents spent, on average, 2 to 10 minutes to answer the 30 USDI-BR questions. This average shows us that the USDI-BR can be applied without demanding so much time from health professionals and professors.

At the end of the pilot test, 8 questions were added for students to assess the questionnaire[21]. With these questions, only one student made an observation: "I was in doubt about 2 questions to answer, because I did not understand well", but the authors chose not to make any changes, as the interviewee did not describe what the questions would be and took into account the other students' and judges' overall assessment. Only the scale score format has changed.

In the original version, the author proposed using a score from 0 to 5 in relation to the score given to each item. In this study, it was changed to a five-point format, starting from 1 to 5, as it allows an adequate level of reliability and adjusts to respondents with different levels of ability[19].

Study limitations

The results presented in this study refer to the pre-test phase; therefore, it stands out as a limitation of this study that it did not obtain evidence of construct validity, as these will be carried out in future studies. However, the content validity was satisfactory, with a total CVC of 0.94.

Contributions to health

The USDI adaptation to Brazil will encourage researchers to develop research on this topic in different regions of Brazil, in addition to enabling health professionals and multidisciplinary teams to identify early the level of depressive symptoms in young adults at undergraduate and graduate students, enabling the use of an instrument with evidence of satisfactory content validity.

CONCLUSIONS

The USDI-BR was translated and culturally adapted for use in Brazil. The instrument is the first in Brazil to be translated for the population of young adults (to date), with good reliability and satisfactory evidence of content validity, allowing the opening for continuity of the other stages.

Further studies will allow to verify the construct validity evidence as well as other statistical tests with this instrument. In addition to completing the validity evidence stage, it will be possible to develop, through students' mental health monitoring services, health professionals and multidisciplinary team, mental health prevention and promotion programs for undergraduate and graduate students, aimed at preventing depressive symptoms and cases of major depression in academia.

SUPPLEMENTARY MATERIAL

The present manuscript is the result of the thesis entitled "Evaluation of the psychometric properties of the instruments "University Student Depression Inventory and Assessing Motivations for Suicide Attempts" for the Brazilian context".

FUNDING

The present work was carried out with support of the Coordination for the Improvement of Higher Education Personnel - Brazil (CAPES - *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior*) - Financing Code 001 and *Fundação Araucária*.

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