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Adaptação Transcultural e Validade de Conteúdo do Emotional Breakthrough Inventory no Brasil

Cross-Cultural Adaptation and Content Validity of the Emotional Breakthrough Inventory in Brazil

Adaptación Transcultural y Validez de Contenido del Emotional Breakthrough Inventory en Brasil

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RESUMO

O *Emotional Breakthrough Inventory* (EBI) é um instrumento psicométrico breve, desenvolvido com o objetivo de avaliar o grau de superação emocional vivenciado durante estados induzidos por psicodélicos. Este estudo descreve o processo de adaptação transcultural e evidências de validade de conteúdo da versão brasileira. O procedimento metodológico incluiu: duas traduções independentes, síntese por especialistas, retrotradução e aprovação final do autor original. Quatro juízes especialistas analisaram os itens quanto à clareza, relevância e representatividade. Com base nessas análises, calculou-se o Coeficiente de Validade de Conteúdo (CVC), conforme metodologia de Hernández-Nieto. Aplicou-se um teste piloto a dez participantes da população-alvo, para verificar a clareza semântica dos itens. Devido à ausência de tradução para o termo "*emotional breakthrough*", foram testadas as expressões "Descoberta Emocional" e "Superação Emocional". A maioria dos itens apresentou valores satisfatórios de CVC (CVCt = 0.94), embora um item tenha apresentado valor abaixo do ponto de corte para clareza. O teste semântico demonstrou alta compreensão dos itens entre os participantes. A versão brasileira do EBI apresentou evidências satisfatórias de validade de conteúdo e adaptação linguística. Os resultados apoiam seu uso futuro em pesquisas com substâncias psicodélicas no Brasil, sendo necessários estudos adicionais de validade de construto e confiabilidade.

PALAVRAS-CHAVE:

Substâncias psicodélicas; Psicometria; Validade dos testes; Estudos de validação.

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ABSTRACT

The Emotional Breakthrough Inventory (EBI) is a brief psychometric instrument developed to assess the degree of emotional breakthrough experienced during psychedelic-induced states. This study describes the cross-cultural adaptation process and content validity evidence for the Brazilian Portuguese version. The methodological procedure included: two independent translations, synthesis by experts, back-translation, and final approval by the original author. Four expert judges evaluated the items for clarity, relevance, and representativeness. Based on these evaluations, the Content Validity Coefficient (CVC) was calculated according to Hernández-Nieto's method. In addition, a pilot test was conducted with ten participants from the target population to assess semantic clarity. Due to the absence of a translation for the term "emotional breakthrough," the expressions "Emotional Discovery" and "Emotional Overcoming" were tested. Most items achieved satisfactory CVC values (CVCt = 0.94), although one item showed a value below the recommended cutoff point for clarity. The semantic test showed high item comprehension among participants. The Brazilian version of the EBI demonstrated satisfactory content validity and linguistic-cultural adaptation. The results support its future use in psychedelic research in Brazil, although further studies on construct validity and reliability are still needed.

KEYWORDS:

Psychedelic substances; Psychometrics; Reproducibility of results; Validation studies.

RESUMEN

El *Emotional Breakthrough Inventory* (EBI) es un instrumento psicométrico breve desarrollado con el objetivo de evaluar el grado de superación emocional experimentado durante estados inducidos por psicodélicos. Este estudio describe el proceso de adaptación transcultural y evidencias de validez de contenido para versión brasileña. El procedimiento metodológico incluyó dos traducciones independientes, síntesis por expertos, retrotraducción y aprobación final del autor original. Cuatro jueces expertos evaluaron los ítems en claridad, relevancia y representatividad. A partir de estas evaluaciones, se calculó el Coeficiente de Validez de Contenido (CVC), según método de Hernández-Nieto. Se realizó una prueba piloto con diez participantes del público objetivo para evaluar la claridad semántica. Debido a la ausencia de traducción del término "*emotional breakthrough*", se probaron las expresiones "Descoberta Emocional" y "Superação Emocional". La mayoría de los ítems presentaron valores satisfactorios de CVC (CVCt = 0.94), aunque un ítem presentó un valor por debajo del corte para claridad. La prueba semántica mostró alta comprensión de los ítems entre los participantes. La versión brasileña del EBI presentó validez de contenido satisfactoria y adaptación lingüístico-cultural. Los resultados respaldan su uso futuro en investigaciones con sustancias psicodélicas en Brasil, siendo necesarios estudios adicionales sobre validez de constructo y confiabilidad.

PALABRAS CLAVE:

Sustancias psicodélicas; Psicometria; Validez de las pruebas; Estudio de validación.

Psychedelics are a class of psychoactive substances whose effects are mainly mediated by their agonistic action on brain serotonin 5-hydroxytryptamine (5-HT) 2A receptors (Johnson et al., 2019; Nichols, 2016). These substances are well known for inducing acute and dramatic alterations in states of consciousness that include complex changes in perceptual, affective, and cognitive experiences. These alterations can last from 20 minutes (e.g., as in the case of N,N - dimethyltryptamine - DMT) to 12 hours (as in the case of lysergic acid diethylamide - LSD) (Grob & Grigsby, 2021). These substances are also associated with persisting behavioral traits that outlast their acute effects and can have a significant impact on users' mental health (Doblin et al., 2019; Ko et al., 2023), including potentially positive effects on several mental health conditions such as substance use disorders, depression, and anxiety (Gonçalves et al., 2023; Jachimowski & Kucia, 2023; Ko et al., 2022, 2023; Roseman et al., 2018; Schimmers et al., 2022; Sharma et al., 2023).

Accumulating evidence suggests that the quality of the psychedelic-induced altered states of consciousness (ASC) can predict the longer-term effects of these substances on these psychological conditions (Ko et al., 2022; Roseman et al., 2018; Schimmers et al., 2022). Therefore, the assessment of psychedelic-induced ASCs seems crucial for understanding the therapeutic mechanisms of these substances. During the last several years, different instruments have been elaborated to assess specific acute aspects of psychedelic-induced ASCs (Pontual et al., 2023). For instance, the 30-item Mystical Experience Questionnaire (MEQ30) measures mystical-type experiences (Barrett et al., 2015), including the transcendence of time and space as well as experiences of ineffability; the Challenging Experience Questionnaire (CEQ) assesses difficult or challenging experiences, such as sadness, anxiety, and grief (Barrett et al., 2016).

However, although these instruments capture important aspects of psychedelic-induced altered states of consciousness, they do not fully address the process through which individuals confront and overcome emotionally challenging memories or feelings during the psychedelic experience. While the MEQ focuses on mystical-type experiences and the CEQ assesses difficult emotional states, neither instrument directly measures the resolution of such challenges and the subsequent experience of emotional release. This process, often described as emotional breakthrough or catharsis, has been highlighted as a potentially important mechanism underlying psychological change in psychedelic experiences (Roseman et al., 2019). The Emotional Breakthrough Inventory (EBI) was developed to specifically assess this phenomenon.

The Emotional Breakthrough Inventory (EBI) was developed by Roseman et al. (2019) to address what appears to be a key and partially neglected element of the therapeutic effects of psychedelic-induced ASCs, namely emotional breakthrough (EB). According to the authors of the EBI, EB refers to the process of confronting and overcoming challenging memories and emotions during the psychedelic experience, often accompanied by a subsequent sense of emotional release or relief (Roseman et al., 2019). The instrument consists of six self-report items rated on visual analogue scales ranging from 0 to 100, with scores averaged to produce a continuous index of emotional breakthrough intensity, without the use of diagnostic cutoff points. The EBI was originally developed and validated in prospective naturalistic studies conducted online with individuals reporting planned psychedelic experiences. The instrument has demonstrated high internal consistency and evidence of convergent, divergent, and predictive validity, supporting its use in the investigation of psychological mechanisms associated with psychedelic-induced therapeutic outcomes (Murphy et al., 2022; Roseman et al., 2019; Spriggs et al., 2021).

Brazil is one of the leading countries in the emerging field of psychedelic science, with prolific scientific production on the effects of psychedelics on health (Araújo et al., 2024; Mizumoto et al., 2011). Moreover, Brazil is home to several religions, including *União do Vegetal* and *Santo Daime* that use ayahuasca in their ceremonies (Labate & Feeney, 2012). The current study reports the translation and adaptation of the Emotional Breakthrough Inventory (EBI) into Brazilian Portuguese, and evidence of content validity of the EBI in the Brazilian context. The availability of a Brazilian version of the EBI could be a valuable contribution to the study of the effects of psychedelics in clinical trials or naturalistic contexts in Brazil. The EBI-measured construct will supplement other ASC-related constructs that have been validated in Brazil, such as the MEQ30 (Schenberg et al., 2017), which will result in more comprehensive evaluations of the effects of these substances in the country.

Method

The EBI is a 6-item visual analog scale (VAS) that rates EB-related experiences. Its validation study was published by researchers in the United Kingdon (UK) (Roseman et al., 2019). In the present study, one item was temporarily represented by two alternative translations, resulting in seven items for the content validity phase, without altering the original structure of the instrument.

Adaptation

The adaptation of the Emotional Breakthrough Inventory (EBI) into Brazilian Portuguese followed a structured, multi-step process guided by the guidelines for the cross-cultural adaptation of self-report measures proposed by Beaton et al. (2000). First, authorization was obtained from the corresponding author of the original validation study. Two Brazilian psychologists, fluent in English and holding Master's degrees, independently translated the instrument. A PhD-level psychologist with expertise in psychedelic research

reviewed both translations, combining the best elements and adding suggestions to create a preliminary synthesis version. This version was then reviewed by a second PhD-level psychologist, a psychiatrist (PhD), and a medical doctor, each with significant research experience in psychedelics.

Subsequently, a native English speaker fluent in Portuguese, with extensive knowledge of the religious use of psychedelics, performed the back-translation. Both the Brazilian version and the back-translated version were submitted to one of the original authors, who approved the final adaptation (see Figure 1). Throughout the process, the research team proposed alternative phrasings, which were documented and addressed during the expert review phase.

We did not reach a consensus on which expression most accurately reflects the construct of Emotional Breakthrough — whether “Superação Emocional” or “Descoberta Emocional”. Both expressions were therefore retained to allow empirical evaluation of their psychometric properties before selecting the most appropriate version. As a result, the version submitted for content analysis included seven items (Table 1), rather than the six found in the original English version. The instrument, however, remained conceptually equivalent to the original six-item version, with one item temporarily represented by two alternative translations.

Figure 1

Methodological Process for the Transcultural Adaptation of the EBI Scale.

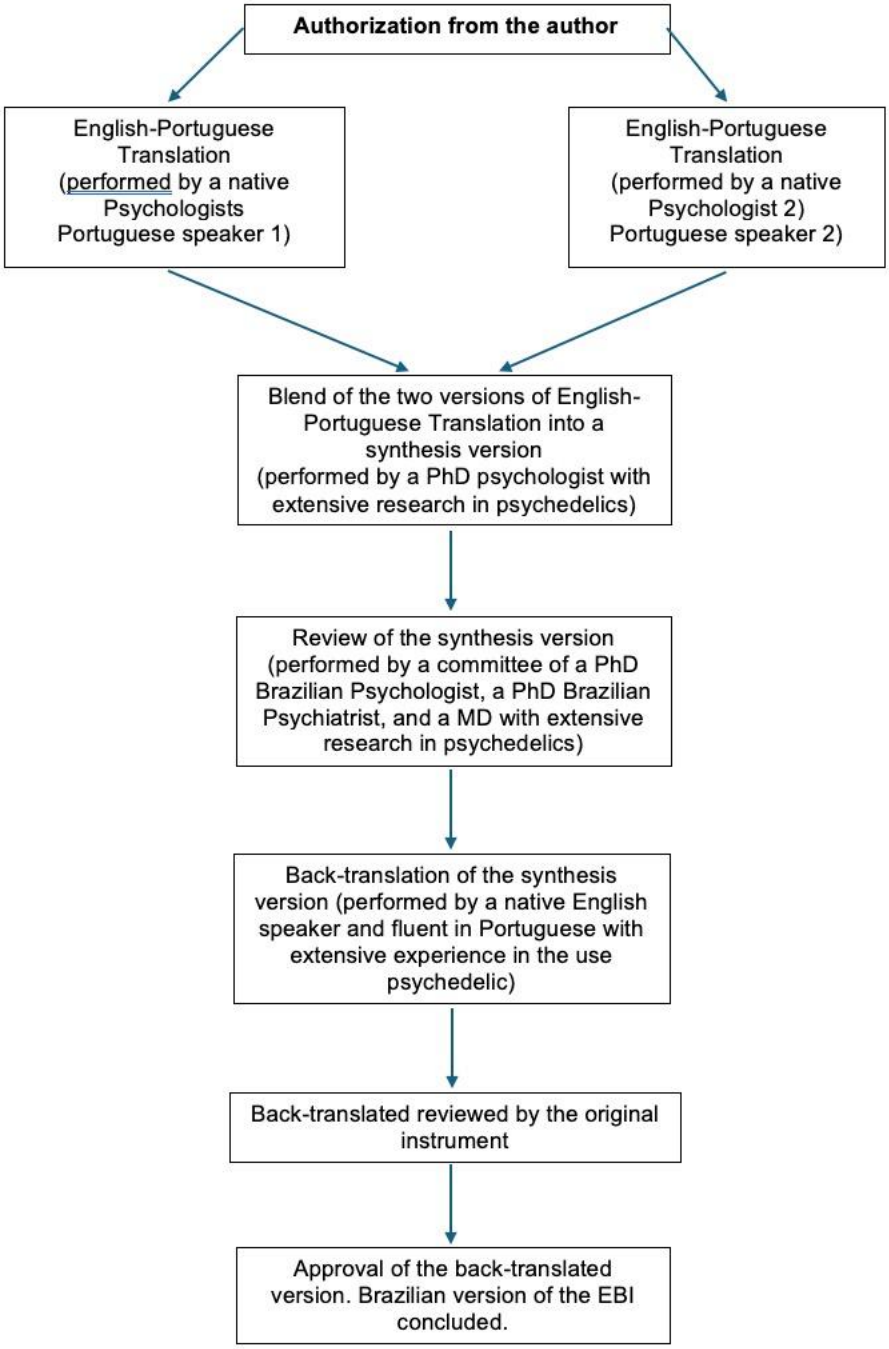

Table 1

Adaptation of the Emotional Breakthrough Inventory (EBI) to Brazilian Portuguese.

Title	Synthesis	Back Translation	Original
	Emotional Breakthrough Inventory		
	Até que ponto as seis afirmações a seguir são verdadeiras sobre sua experiência?	How true are the following six affirmations about your experience? Or To what extent are the following six affirmations about your experience true?	How much are the following six statements true of your experience:
Item 1	Enfrentei sentimentos que costumo deixar de lado por me serem emocionalmente difíceis	I confronted feelings that I usually set aside/ignore because they are emotionally difficult.	I faced difficult feelings that I usually push aside.
Item 2	Vivenciei a resolução de um conflito/trauma pessoal	I experienced the resolution of a personal conflict/trauma.	I experienced a resolution of a personal conflict/trauma.
Item 3	Me senti capaz de explorar emoções e memórias desafiadoras	I felt capable of exploring challenging emotions and/or memories. Or I felt able to explore challenging emotions and/or memories.	I felt able to explore challenging emotions and memories.
Item 4	Vivenciei uma superação emocional	I experienced an emotional breakthrough	I had an emotional breakthrough
Item 5	Consegui ter uma sensação de conclusão de um problema emocional	I was able to have a feeling of resolution of an emotional problem. Or I was able to have a feeling of conclusion of an emotional problem.	I was able to get a sense of closure on an emotional problem.
Item 6	Alcancei uma liberação emocional seguida por uma sensação de alívio	I reached an emotional release followed by a sensation/feeling of relief. Or I was able to reach an emotional freedom followed by a sensation/feeling of relief.	I achieved an emotional release followed by a sense of relief.
Item 7	Vivenciei uma descoberta emocional	I experienced an emotional discovery.	----------
Answer	Não, não mais do que normalmente/ Sim, total ou completamente	No, not any more than normal/ yes, totally or completely.	No, not more than usually/ yes, entirely or completely

Content Validity

The first phase of the study involved a content analysis conducted by a panel of four experts with recognized experience in clinical psychology, emotional therapies, and psychometrics. The number of judges followed methodological recommendations for content validation studies, which suggest a minimum of three and a maximum of five experts (Cassepp-Borges et al., 2010). The inclusion criteria for the expert panel were possession of a doctoral or master's degree in psychology or related fields; practical or theoretical experience with emotional assessment instruments; and experience or publications related to the development and validation of psychometric tools. The materials were sent to the experts electronically, with a 30-day deadline for return.

The theoretical analysis of the seven items (including two alternative translations of one original item) employed the content validity technique, based on the criteria of language clarity, theoretical relevance, and practical pertinence, as proposed by Hernández-Nieto (2002). Experts rated each item using a five-point Likert scale ranging from 1 (lowest) to 5 (highest) for each criterion and were also invited to provide qualitative comments and suggestions for improvement.

In the second phase, a semantic evaluation (verbal comprehension assessment) of the Brazilian version of the instrument was conducted. The seven items (including two alternative translations of the same original item) were administered to a convenience sample of ten participants affiliated with the Laboratory for Psychedelic Studies (LEP), an extension project of the Federal University of Rondônia (UNIR), Brazil. This group is composed primarily of individuals engaged in research and educational activities related to psychedelic studies, which makes it broadly consistent with the population for whom the instrument is intended. Participants were recruited via social media and direct messaging applications.

Data collection was conducted remotely. The questionnaire was distributed via WhatsApp, and responses were recorded online through Google Forms. Participants evaluated each item using a five-point Likert scale ranging from 1 (not clear at all) to 5 (completely clear), enabling a quantitative assessment of semantic clarity. Sociodemographic variables were not collected in this phase, as the procedures were restricted to translation, cross-cultural adaptation, and content validity assessment; such data will be systematically collected in subsequent psychometric validation stages.

Analysis

The data obtained from the expert evaluations were used to calculate the instrument's Content Validity Coefficient (CVC), following the five-step procedure described by Hernández-Nieto (2002). In the first step, the average score for each item (Mx) was calculated based on the judges' ratings. In the second step, the CVC for each item (CVCi) was calculated by dividing Mx by the maximum possible score (Vmax) an item could receive in terms of clarity, relevance, or pertinence. The third step involved calculating the error term (P_{ei}) by dividing one (1) by the number of judges, raised to power of that same number, in order to discount potential bias in each item's evaluation. In the fourth step, the final CVC for each item (CVCc) was obtained by subtracting the error (P_{ei}) from the item's CVCi. The fifth and final step consisted of calculating the total CVC of the questionnaire (CVCt) for each characteristic — clarity, relevance, and pertinence — by subtracting the average error (MPe_i) from the average of the item-level content validity coefficients (MCVC_i). All analyses were conducted using Microsoft Excel®. The criterion adopted to determine acceptable levels of language clarity, theoretical relevance, and practical pertinence was a CVC $\geq$ 0.80, as proposed by Hernández-Nieto (2002).

Clarity ratings obtained during the semantic evaluation phase were analyzed using descriptive statistics. Mean scores and standard deviations were calculated to summarize the perceived comprehensibility of the items. To facilitate interpretation, mean scores were linearly transformed into a Percentage of Maximum Possible (POMP) metric ranging from 0 to 100 (Cohen et al., 1999), computed as POMP = (($\bar{X}$ − Xmin) / (Xmax − Xmin)) × 100, where $\bar{X}$ represents the observed mean score, and Xmin and Xmax correspond to the minimum and maximum possible values of the response scale, respectively. In the present study, the clarity scale ranged from 1 to 5. This transformation expresses the observed mean relative to the full attainable range of the scale, enabling interpretation of semantic clarity as a proportion of the maximum possible score. No inferential analyses were conducted, as this phase was restricted to evaluating item comprehensibility rather than examining psychometric properties.

This study was approved by the Human Research Ethics Committee of the Federal University of Rondônia (CEP-UNIR), Brazil (CAAE 80133024.8.0000.5300). Informed consent was obtained from all participants prior to their participation.

Results

Adaptation

The main translation challenge encountered was the lack of a precise equivalent in Portuguese for the term emotional breakthrough, which is both the central concept of the Emotional Breakthrough Inventory (EBI) and the focus of Item 4. Throughout the translation process, several alternatives were proposed in an effort to capture the original meaning. *Rompante Emocional* was considered, as it can be translated back into “emotional breakthrough”, but in Portuguese it typically suggests meanings such as emotional burst, breakout, or outbreak, which deviate from the intended concept. *Revelação Emocional* and *Auto-Revelação Emocional* — corresponding to emotional disclosure and emotional self-

disclosure—were also explored. However, *revelação* in Portuguese often carries mystical or oracular connotations, which diverge from the personal insight focus of the EBI. *Insight Emocional* (emotional insight) was another possibility, but the team opted against it due to potential conceptual overlap with another instrument being adapted into Brazilian Portuguese, the Psychological Insight Scale (PIS-22) (Peill et al., 2022). Finally, *Avanço Emocional* (emotional progress or development) was acknowledged for capturing the idea of psychological growth inherent to the emotional breakthrough construct, but it lacked the critical element of resolution or problem closure that defines the original term. We narrowed the candidate terms for emotional breakthrough to two Portuguese expressions: emotional discovery (*descoberta emocional*) and emotional overcoming (*superação emocional*). While *descoberta emocional* effectively captured the sudden self-awareness characteristic of the emotional breakthrough (EB) experience, it fell short of conveying the critical element of problem resolution. Consequently, we provisionally favored *superação emocional*, a preference later validated by the original instrument's author. Despite this, due to the lack of consensus on the optimal equivalent for emotional breakthrough, we ultimately decided to empirically test both terms in the content validity study to determine their conceptual alignment with the construct. We retained two alternative Portuguese translations of the same original item ("I had an emotional breakthrough"), which were later presented as Items 4 and 7 for empirical comparison. No significant translation challenges were identified for Items 1, 2, 3, 5, or 6.

Content Validity

The seven items (including two alternative translations of one original item) were evaluated by expert judges based on three criteria: clarity, relevance, and pertinence (Table 2). Regarding language clarity, the instrument achieved a total Content Validity Coefficient

(CVCt) of 0.92, surpassing the established cut-off point of 0.80, as proposed by Hernández-Nieto (2002), as shown in Table 2. However, Item 1 — "I faced feelings that I usually set aside because they are emotionally difficult" — received a clarity-specific CVC (CVCc) of 0.69, falling below the recommended cutoff point of 0.80 (Hernández-Nieto, 2002). Although a formal re-evaluation by the judges was not conducted, this decision was supported by the qualitative consensus reached among the panel: two of the four judges (Judges 2 and 3), who had assigned lower clarity ratings to Item 1, independently proposed an equivalent reformulation — "I faced feelings that I usually put aside because they are emotionally difficult for me" — preserving the original semantic content while improving linguistic naturalness. Given that the proposed revision represented a minor lexical adjustment rather than a conceptual change, and that it was unanimously agreed upon by the authors and consistent with the judges' own suggestions, the revised wording was adopted for the final version of the instrument.

Items 2 and 5 received CVCc values of 0.946 in the clarity evaluation. Although these scores were satisfactory, minor textual adjustments were made based on the judges' suggestions to enhance readability and fluidity (Table 3).

Table 2

CVC Calculation for Clarity, Pertinence, and Relevance of the Emotional Breakthrough Inventory (EBI) to Brazilian Portuguese.

		CVC Clarity				CVC Pertinence				CVC Relevance			
Item	**Description**	**Mean**	**CVCi**	**Pei**	**CVCc**	**Mean**	**CVCi**	**Pei**	**CVCc**	**Mean**	**CVCi**	**Pei**	**CVCc**
1	Enfrentei sentimentos que costumo deixar de lado por serem emocionalmente difíceis para mim.	3.50	0.70	0.0039	0.696	4.75	0.95	0.0039	0.946	4.75	0.95	0.0039	0.946
2	Vivenciei a resolução de um trauma pessoal.	4.75	0.95	0.0039	0.946	5	1	0.0039	0.996	5	1	0.0039	0.996
3	Me senti capaz de explorar emoções e memórias desafiadoras.	5	1	0.0039	0.996	4.75	0.95	0.0039	0.946	4.75	0.95	0.0039	0.946
4	Vivenciei uma superação emocional.	4.50	0.90	0.0039	0.896	4.50	0.90	0.0039	0.896	4.50	0.90	0.0039	0.896
5	Consegui ter uma sensação de resolução de um problema emocional.	4.75	0.95	0.0039	0.946	4.75	0.95	0.0039	0.946	4.75	0.95	0.0039	0.946
6	Alcancei uma liberação emocional seguida por sensação de alívio.	5	1	0.0039	0.996	5	1	0.0039	0.996	5	1	0.0039	0.996
7	Vivenciei uma descoberta emocional.	5	1	0.0039	0.996	4.75	0.95	0.0039	0.946	4.50	0.90	0.0039	0.896
	Total	CVCt Clarity 0.925				CVCtPertinence 0.953				CVCt Relevance 0.946			

*Note.*CVCi = Content Validity Coefficient of each item; Pei = Error estimate; CVCc = Final Content Validity Coefficient of each item; CVCt = Total Content Validity Coefficient of the instrument.

Regarding relevance, all items demonstrated satisfactory content validity (CVCc > 0.80) and achieved the highest overall mean score among the evaluated criteria (M = 4.79). The instrument's total content validity coefficient for relevance was CVCt = 0.95 (Table 2), reflecting satisfactory alignment with the construct. For pertinence, the individual item CVCc scores consistently exceeded 0.80, yielding a total coefficient of CVCt = 0.94 (Table 2). Finally, the global content validity coefficient (CVCg = 0.94) exceeded the established cutoff point. Following revisions based on expert feedback, the final Brazilian Portuguese version of the EBI was finalized and is presented in Table 4.

In the semantic evaluation phase, the Brazilian version of the EBI demonstrated satisfactory verbal comprehension among the ten participants. The instrument achieved a mean clarity score of 4.58 (*SD* = 0.64) on a 5-point Likert scale, corresponding to 89.5% on the Percentage of Maximum Possible (POMP) metric, suggesting that, on average, participants rated the items as highly understandable, with scores approaching the maximum possible clarity score.

Table 3

Suggestions from Expert Judges for Item Modifications.

Item	Before the judges' suggestions	After the judges' suggestions
1	Enfrentei sentimentos que costumo deixar de lado por me serem emocionalmente difíceis	Enfrentei sentimentos que costumo deixar de lado por serem emocionalmente difíceis para mim
2	Vivenciei a resolução de um conflito/trauma pessoal	Vivenciei a resolução de um trauma pessoal
5	Consegui ter uma sensação de conclusão de um problema emocional.	Consegui ter uma sensação de resolução de um problema emocional.

Table 4

Final Version of the Questionnaire Following Content Validity Assessment by Expert Judges.

Item	Description
1	Enfrentei sentimentos que costumo deixar de lado por serem emocionalmente difíceis para mim.
2	Vivenciei a resolução de um trauma pessoal.
3	Me senti capaz de explorar emoções e memórias desafiadoras.
4	Vivenciei uma superação emocional.
5	Consegui ter uma sensação de resolução de um problema emocional.
6	Alcancei uma liberação emocional seguida por sensação de alívio.
7	Vivenciei uma descoberta emocional.

Discussion

This report presents the adaptation and evidence of content validity of the Emotional Breakthrough Inventory (EBI) into Brazilian Portuguese. The cross-cultural adaptation process and the content validity analyses of the Brazilian version of the EBI indicated satisfactory levels of clarity, pertinence, and relevance. One item showed unsatisfactory performance on the clarity criterion and was therefore modified based on the judges' suggestions. The absence of a Portuguese term with direct semantic equivalence to the word "breakthrough" resulted in alternative translation options, and the methodological decision to retain two versions (*superação* and *descoberta*) in the Brazilian version proved appropriate at this stage of the validation process. The availability of a Brazilian version of the EBI may facilitate future research investigating the psychological mechanisms underlying psychedelic-assisted therapies in Brazil and expand the assessment of acute subjective experiences in both clinical and naturalistic contexts.

The original English term emotional breakthrough condenses the cognitive experience of sudden self-awareness and an affective component of growth and overcoming a difficult emotional issue (Roseman et al., 2019). We found no Portuguese term that simultaneously conveys these emotional and cognitive experiences. Therefore, we analyzed the trade-off between emphasizing the cognitive and the emotional dimensions of the construct and subsequently chose *superação emocional*.

After the expert review and the calculation of the overall Content Validity Coefficient (CVCg = 0.94), the instrument demonstrated clarity, pertinence, and relevance indices exceeding the established cut-off point (CVC ≥ 0.80), according to the criteria proposed by Hernández-Nieto (2002), except for one item in the clarity dimension. This suggests that the questionnaire presents satisfactory initial evidence for assessing emotional findings related to the effects of psychedelics. According to Collares et al. (2012), such indices support the presence of content validity, which is a key quality criterion for any instrument. Content validity represents the first stage in the validation process, ensuring that the instrument's items accurately reflect the construct being measured (Nakano & Siqueira, 2012).

This is particularly relevant in cross-cultural adaptations, such as that of the EBI, where cultural nuances must be considered to ensure the instrument's accuracy and relevance. The results presented in Table 2 indicate a total Content Validity Coefficient (CVCt) of 0.92 for clarity, suggesting substantial agreement among the expert judges regarding most items. However, Item 1 showed a CVCi of 0.69, falling below the recommended cutoff point (Cassepp-Borges et al., 2010), and was therefore revised according to expert suggestions (Table 3) to better suit the target population.

Similarly, despite Items 2 and 5 obtaining scores above 80% across all evaluated criteria (clarity, pertinence, and relevance), adjustments were also made to these items following expert

recommendations (Table 3), as commonly reported in the literature on content validity (Alexandre & Coluci, 2011; França & Dias, 2021). The analysis of both practical and theoretical relevance demonstrated substantial agreement among experts, with CVCt values of 0.95 and 0.94, respectively. These indices confirm the consistency of the expert evaluations and provide initial support for the validation process and the instrument's suitability for its intended purpose (DeVellis & Thorpe, 2021; Morales et al., 2012).

After the expert review, a semantic evaluation was conducted with a group of ten volunteers, whose comprehension levels were comparable to those reported by Pereira et al. (2019). In that study, which involved the cross-cultural adaptation of the Brazilian version of the International Fitness Scale, the authors reported a mean comprehension score of 4.74 on a 5-point Likert scale — corresponding to over 80% agreement regarding clarity and understanding.

The availability of a Brazilian version of the EBI with evidence of content validity may contribute to the refinement of observational research in religious contexts and clinical studies investigating the therapeutic effects of psychedelics conducted in Brazil. The difficulty in identifying a single Portuguese term capable of simultaneously capturing both cognitive insight and emotional resolution suggests that the phenomenological description of psychedelic experiences should consider linguistic and cultural specificities that may influence how individuals interpret their experiences. Supporting this observation, the relevance of cultural, ethnic, and socioeconomic factors in shaping the subjective experience during the acute effects of psychedelics has been highlighted in other studies (Jones et al., 2025; Rojas et al., 2025).

One important methodological decision in the present study was the retention of two alternative translations of the original item “I had an emotional breakthrough.” These were included as parallel items to allow for an empirical comparison of their semantic and

psychometric performance. The final selection between these alternatives will be informed by subsequent analyses, including exploratory factor analysis and reliability indices, to determine which version better represents the construct in the Brazilian context. As this study focused specifically on translation and content validity, further psychometric investigations will be necessary to examine the factorial structure and other measurement properties of the Brazilian version of the EBI in broader samples and contexts.

Another limitation lies in the fact that, as this is the first study to assess the suitability of the instrument for the Brazilian population through an analysis of content validity evidence, the national literature on this topic remains scarce.

Conclusion

The Brazilian version of the Emotional Breakthrough Inventory (EBI) demonstrated cultural adequacy and satisfactory evidence of content validity. These findings represent an important step toward the availability of a culturally adapted instrument for assessing emotional breakthrough in the Brazilian context. Nevertheless, further studies are required to complete the psychometric validation of the instrument and to support its broader use in research and clinical settings in Brazil.

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