

Original Article

# Cross-cultural adaptation of the “Sunflower Tool” to the Brazilian context: an instrument for client-centered care in the hospital context

## *Adaptação transcultural do “Sunflower Tool” para o contexto brasileiro: um instrumento para o cuidado centrado no cliente no contexto hospitalar*

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**How to cite:** Montijo, G. A. A. C., Pereira, D. F., Cabral, B. P. A. L., Gomes, C. M. S., & Faria-Fortini, I. (2026). Cross-cultural adaptation of the “Sunflower Tool” to the Brazilian context: an instrument for client-centered care in the hospital context. *Cadernos Brasileiros de Terapia Ocupacional*, 34, e4103. <https://doi.org/10.1590/2526-8910.cto417541032>

### Abstract

**Introduction:** Client-centered care is one of the foundations of humanized care. For hospitalized individuals, humanized care can be understood as multidisciplinary care that considers the client’s life history and current situation in the construction of the care plan. To implement these principles, it is necessary to use tools that allow the collection of information about the client, their interests, habits, and routine. **Objective:** To describe the cross-cultural adaptation process of the Australian English version of the Sunflower Tool for use in Brazil. **Method:** A methodological study conducted in five stages: initial translation, synthesis of translations, back-translation, expert committee review, and testing of the pre-final version, carried out in a public hospital in Belém do Pará, Brazil, with a clinical population. **Results:** The version adapted for use in Brazil, called Sunflower-Brazil, showed adequate semantic, cultural, and conceptual equivalence. The application of the pre-final version to 10 participants, 60% women, with an average age of 60 years, indicated that the questions were easy to understand. **Conclusion:** The results suggest that Sunflower-Brazil is a valid and useful tool to assist in promoting humanized hospital care centered on the needs of clients.

**Keywords:** Translating, Critical Care, Hospitalization, Humanization of Assistance, Patient-Centered Care.

Received on May 19, 2025; 1<sup>st</sup> Revision on May 27, 2025; Accepted on Oct. 30, 2025.



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## Resumo

**Introdução:** O cuidado centrado no cliente é um dos pressupostos da humanização do cuidado. Para indivíduos hospitalizados, a humanização do cuidado pode ser compreendida como um cuidado multiprofissional que considera a história de vida e a situação atual do cliente na construção do plano de cuidado. Para implementação desses princípios, é necessário o uso de ferramentas que permitam a coleta de informações sobre o cliente, seus interesses, seus hábitos e sua rotina. **Objetivo:** Descrever o processo de adaptação transcultural da versão em inglês australiano do *Sunflower Tool* para uso no Brasil. **Método:** Estudo metodológico realizado em cinco estágios: tradução inicial, síntese das traduções, retrotradução, comitê de especialistas e teste da versão pré-final, realizada em hospital público em Belém do Pará, Brasil, com população clínica. **Resultados:** A versão adaptada para uso no Brasil, chamada *Sunflower-Brasil*, apresentou adequada equivalência semântica, cultural e conceitual. A aplicação da versão pré-final em 10 participantes, 60% mulheres, com idade média 60 anos, indicou que as questões eram de fácil compreensão. **Conclusão:** Os resultados sugerem que o *Sunflower-Brasil* é uma ferramenta válida e útil para auxiliar na promoção de cuidados hospitalares humanizados e centrados nas necessidades dos clientes.

**Palavras-chave:** Tradução, Cuidados Críticos, Hospitalização, Humanização da Assistência, Assistência Centrada no Paciente.

## Introduction

The hospital context often evokes anxiety, fear, and vulnerability in people due to the uncertainty surrounding diagnoses, treatments, and prognoses (Alzahrani, 2021). Especially for older adults, hospital admission usually interferes negatively with daily routines and meaningful occupations, contributing to functional decline and reduced social participation, thus compromising their autonomy and increasing the risk of readmissions (Castillo Núñez et al., 2023; Silva et al., 2018; Tavares et al., 2021). According to the American Occupational Therapy Association (American Occupational Therapy Association, 2020), occupations are essential to individuals' health, identity, and competence, possessing specific meaning and value for each client. The National Palliative Care Policy (PNCP), implemented in Brazil in 2024, proposes ensuring humanized and person-centered care, focusing on relieving pain, suffering, and other symptoms of people with diseases or conditions that threaten or limit life, including those who are hospitalized (Brasil, 2024). The proposed care model should be multiprofessional and interdisciplinary, promoting empathetic and transparent communication among clients, family members, and health professionals (Brasil, 2024).

Client-centered care is an essential pillar of humanization in healthcare, involving multiprofessional work, active listening, assertive communication, and the engagement of the individual in decisions about their treatment (Aniceto & Bombarda, 2020; Ebrahimi et al., 2021; Nydahl et al., 2024). In addition to directly benefiting clients' health and well-being, this approach contributes to shorter hospital stays, greater care effectiveness, and reduced hospital costs (Aniceto & Bombarda, 2020; Ebrahimi et al., 2021). However, structural and organizational barriers often hinder its implementation in hospital practice, reinforcing the need for structured instruments that systematize the collection of individualized information essential for tailoring interventions and humanizing care

(Ferreira Neto et al., 2024). Nevertheless, due to the structural and organizational barriers of the hospital context, understanding the individual as the protagonist of care proves to be a challenge to be overcome by healthcare institutions (Havana et al., 2023).

The adoption of care centered on clients’ needs in the hospital context is one of the principles of care for hospitalized older adults proposed by the Agency for Clinical Innovation (ACI) through the “Confused Hospitalised Older Persons (CHOPs)” program (Agency for Clinical Innovation, 2014; Deeken et al., 2022; Kurrle et al., 2019). The program is categorized into seven principles, among which the management of confusion states stands out, based on the development of a care plan centered on the clinical, physical, psychological, and social needs of the hospitalized person, with the involvement and engagement of caregivers and family members (Agency for Clinical Innovation, 2014; Deeken et al., 2022; Kurrle et al., 2019). A previous study demonstrated that the implementation of the program resulted in improved identification, risk assessment, and management of cognitive impairment in hospitalized older adults, as well as enhanced interaction with families (Kurrle et al., 2019).

To implement a care plan centered on the person’s needs, it is necessary to use tools that allow the collection of information about the client, their interests, habits, and routine. This enables adapting care to the client’s needs, as well as modifying activities considering their personal interests (Agency for Clinical Innovation, 2022; Lennox et al., 2025). Among the tools proposed by the CHOPs program, the “Sunflower Tool” stands out as a multiprofessional clinical tool, available at the bedside and easily visible during care delivery, due to its capacity to record personalized information about hospitalized older adults with cognitive changes, facilitating personalized and humanized care (Agency for Clinical Innovation, 2022; Lennox et al., 2025). The tool is visually represented as a sunflower, in which the person’s preferred name appears in the center, and each petal gathers important information about their life, interests, and preferences (Agency for Clinical Innovation, 2022).

In Brazil, despite hospital humanization initiatives, there are few specific instruments for standardized collection of clients’ occupational repertoire, such as the Canadian Occupational Performance Measure (Law et al., 2009) and the Occupational Roles Identification List (Cordeiro, 2005). However, these instruments require prior knowledge of specific theoretical models of occupational therapy and demand longer application time, which may limit their use in dynamic contexts such as intensive care units. Furthermore, they do not include relevant aspects of the occupational repertoire, such as the identification of significant people, preferences in leisure activities, music, and interaction with pets. This information, collected briefly and in a targeted manner through the Sunflower Tool, can help health professionals promote person-centered care and more humanized practices in the hospital environment.

The scarcity of currently available instruments for collecting information about the occupational repertoire limits the systematic practice of individualized care, and in this sense, the cross-cultural adaptation of the Sunflower Tool can fill this important gap. Thus, the aim of this study was to carry out the cross-cultural adaptation of the Sunflower Tool for use in Brazil.

## **Method**

This is a methodological study, submitted to and approved by the Research Ethics Committee (CAAE: 80054724.0.0000.5149), conducted in five stages, according to in-

ternational guidelines (Beaton et al., 2000; Wild et al., 2005): initial translation, synthesis of translations, back-translation, expert committee review, and testing of the pre-final version. The cross-cultural adaptation process was previously authorized by the instrument's authors, who received information about the stages developed electronically. The cross-cultural adaptation process began in February 2024 and ended in January 2025.

### **Instrument description**

The Sunflower Tool can be completed at the bedside by any healthcare professional. This instrument consists of a visual representation of a sunflower containing nine petals. The center of the sunflower indicates the name by which the person prefers to be called, and each petal indicates information to be collected about the client's life history. The instrument can be completed with information provided by the person themselves, their family members, caregivers, or both (Agency for Clinical Innovation, 2022). In addition to the visual representation of the sunflower and the information to be entered, there is a detailed guide with instructions for applying the instrument. These instructions include the definition and examples of the items. Finally, there is an image illustrating the completed instrument (Agency for Clinical Innovation, 2022).

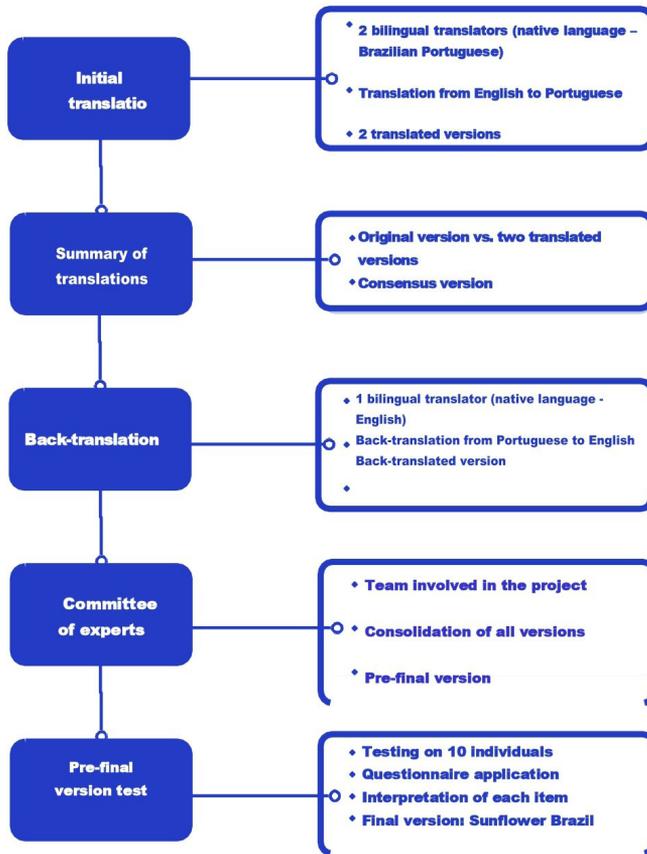
### **Procedures for the cross-cultural adaptation process**

The translation and cross-cultural adaptation process proceeded according to the framework of Beaton et al. (2000), being completed in five stages (Figure 1).

The first stage of the cross-cultural adaptation consisted of translating the Sunflower Tool into Brazilian Portuguese, carried out by two bilingual translators whose native language is Brazilian Portuguese. The first translation was performed by an English language teacher (T1) who was unfamiliar with the instrument's concepts. The second translation was performed by a rehabilitation specialist (T2) who was aware of the concepts indicated by the instrument. The second stage consisted of synthesizing the translations (T1+T2), carried out by a team of researchers involved in the project, who have experience in adapting instruments and rehabilitation in a hospital setting, seeking consensus on the differences between the translated terms, considering clarity, coherence, and cultural relevance. Then, in the third stage, this version (T1+T2) was back-translated into English by a native English speaker fluent in Brazilian Portuguese, with no prior knowledge of the original instrument. The fourth stage was conducted by a committee of experts, composed of four occupational therapists with extensive experience in hospital settings, who assessed the idiomatic, semantic, cultural, and conceptual equivalence of the translated version. Suggestions for adjustments to improve the cultural appropriateness of the instrument were discussed, resulting in the pre-final version (Beaton et al., 2000).

In the fifth and final stage, the pre-final version of the instrument was applied to the target population in order to verify comprehension of the instrument. Previous studies cite a minimum sample of 10 participants in this stage of the cross-cultural adaptation process (Avellar et al., 2021; Faria-Fortini et al., 2020; Khan & Stein, 2014; Traebert et al., 2022). For participation in this stage, the inclusion criteria were: age over 18 years and absence of cognitive impairments, identified by the application of the Mini-Mental State Examination (MMSE) (Bertolucci et al., 1994). Participants were recruited from the Abelardo Santos Regional Hospital (HRAS), located in the city of Belém, in the state of Pará. HRAS is the largest public hospital in the state of Pará, with

Cross-cultural adaptation:



**Figure 1.** Stages of the cross-cultural adaptation process of the Sunflower Tool

60 Intensive Care Unit beds and a general care profile. After verification of eligibility criteria and signing of the Informed Consent Form, each interviewee answered the questionnaire and was asked to describe how they interpreted each item (Wild et al., 2005). The interviews were conducted by the occupational therapist responsible for the Intensive Care Unit, after training in the application of the instrument.

## Results

After completing the first three stages of the cross-cultural adaptation process of the Sunflower Tool (translation, synthesis of translations, and back-translation), the expert committee conducted the evaluation of semantic, idiomatic, conceptual, and cultural equivalences. No discrepancies were found between the original and back-translated versions, confirming adequate semantic, idiomatic, and conceptual equivalence, indicating that the concepts were preserved in the translation and, consequently, ensuring fidelity to the original content of the instrument.

Regarding cultural equivalence, slight divergences were observed by the expert committee. Changes were suggested to improve the comprehension of the items within the Brazilian culture, particularly the replacements of the original terms “Past occupation” and “Hobbies and interests,” initially translated as “Ocupação anterior” and “Hobbies

e interesses,” with “Profissão” and “Passatempo e lazer,” respectively. Minor adjustments were also made to the instructions for completing the instrument. In the item “Passatempo e lazer,” for example, the original version mentioned the sport “golf,” which was removed because it is not a common activity in the Brazilian context.

In the item “Pets,” the original phrase “(...) has a particular pet they are attached to,” initially translated as “(...) animal de estimação específico ao qual ela é apegada,” was reformulated during the expert meeting to “(...) animal de estimação específico ao qual ela é vinculada emocionalmente.” The choice of the term “emotionally bonded” is due to the understanding that it more accurately describes the affective relationship between humans and animals. These changes aim to more faithfully reflect the language and concepts commonly used in the Brazilian context.

Tables 1 and 2 present the paired items, described in English and Portuguese, after the expert committee’s modifications.

**Table 1.** Examples of the versions of the items contained in the visual representation of the Sunflower Tool.

Original Version	Translated version - Portuguese (T1)	Translated version - Portuguese (T2)	Consensus version (T1+T2)	Consensus version (T1+T2)	Pre-Final Version
<i>My preferred name is</i>	Meu nome preferencial é	Meu nome preferido é	Meu nome preferido é	My preferred name is	<i>Meu nome preferido é</i>
<i>People important to me</i>	Pessoas importantes para mim	Pessoas importantes para mim	Pessoas importantes para mim	People who are important to me	<i>Pessoas importantes para mim</i>
<i>Favourite music</i>	Música favorita	Música favorita	Música favorita	Favorite music	<i>Música favorita</i>
<i>Things I like</i>	Coisas que eu gosto	Coisas que gosto	Coisas que gosto	Things I like	<i>Coisas que gosto</i>
<i>Places I like</i>	Lugares que eu gosto	Lugares que gosto	Lugares que gosto	Places I like	<i>Lugares que gosto</i>
<i>Pets</i>	Animais de estimação	Animais de estimação	Animais de estimação	Pets	<i>Animais de estimação</i>
<i>Place of Birth</i>	Local de nascimento	Local de nascimento	Local de nascimento	Place of Birth	<i>Local de nascimento</i>
<i>Other</i>	Outros	Outros	Outros	Other	<i>Outros</i>

Finally, in the Sunflower Tool guidelines and completion instructions, substitutions were made to improve clarity and cultural appropriateness for the Brazilian context. In the center of the sunflower, the name “Frank” was changed to “Cris.” The choice of “Cris” was due to it being a gender-neutral name, which allows for greater inclusion and representation of cisgender, transgender, and non-binary people. This change reflects a commitment to a more welcoming and sensitive approach to the diversity of gender identities, aligning with the principles of person-centered practice.

In the petal with the description “People important to me,” the names “Robert,” “Anna,” “Mary,” and “Sam” were replaced by “Roberto,” “Ana,” “Maria,” and “Leo,”

**Table 2.** Examples of versions of the guide for completing the Sunflower-Tool.

Original Version	Translated version - Portuguese (T1)	Translated version - Portuguese (T2)	Consensus version (T1+T2)	Back-translated version	Pre-Final Version
People important to me: List the first name of important family members or friends.	Pessoas importantes para mim: Liste o primeiro nome de familiares ou amigos importantes.	Pessoas importantes para mim: Liste o primeiro nome de membros da família ou amigos importantes.	Pessoas importantes para mim: Liste o primeiro nome de familiares ou amigos importantes.	People who are important to me: List the first names of important family members or friends.	Pessoas importantes para mim: Liste o primeiro nome de familiares ou amigos importantes.
Past occupation: List the main or most important occupation of the person.	Ocupação anterior: Liste a ocupação principal ou mais importante da pessoa.	Ocupação anterior: Liste a ocupação principal ou mais importante da pessoa.	Ocupação anterior: Liste a ocupação principal ou mais importante da pessoa.	Previous occupation: List the person's main or most important occupation.	Profissão: Liste a ocupação principal ou mais importante da pessoa.
Hobbies and interests: List interests or hobbies which have been or are still important to the person e.g. Golf, fishing, gardening, football, knitting, watching TV, listening to the radio etc. If the person has a particular TV program they enjoy, this can also be listed here.	Hobbies e interesses: Liste interesses ou hobbies que foram ou ainda são importantes para a pessoa, por exemplo. Golfe, pesca, jardinagem, futebol, tricô, assistir TV, ouvir rádio etc. Se a pessoa gosta de um programa de TV específico, isso também pode ser listado aqui.	Hobbies e interesses: Liste interesses ou hobbies (passatempos) que foram ou ainda são importantes para a pessoa, por exemplo: golfe, pesca, jardinagem, futebol, tricô, assistir TV, ouvir rádio etc. Se a pessoa tiver um programa de TV específico que gosta, isso também pode ser listado aqui.	Hobbies e interesses: Liste interesses ou hobbies que foram ou ainda são importantes para a pessoa, por exemplo: golfe, pesca, jardinagem, futebol, tricô, assistir TV, ouvir rádio etc. Se a pessoa gosta de um programa de TV específico, isso também pode ser listado aqui.	Hobbies and interests: List interests or hobbies that were or still are important to the person, for example: golf, fishing, gardening, soccer, knitting, watching TV, listening to the radio, etc. If the person likes a particular TV program, this could also be listed here.	Passatempo e lazer: Liste interesses em passatempo e lazer que foram ou ainda são importantes para a pessoa, por exemplo: pesca, jardinagem, futebol, tricô, assistir TV, ouvir rádio etc. Se a pessoa gosta de um programa de TV específico, isso também pode ser listado aqui.
Favorite music: Hearing familiar music can be reassuring and settling. List any music the person particularly enjoys. If music is important, the family can be asked to bring some music in to play.	Música favorita: Ouvir música familiar pode ser reconfortante e relaxante. Liste qualquer música que a pessoa goste particularmente. Se a música for importante, a família pode ser solicitada a trazer alguma música para tocar.	Música favorita: Ouvir músicas familiares pode ser reconfortante e relaxante. Liste qualquer música que a pessoa goste particularmente. Se a música for importante, a família pode ser orientada a trazer a música para tocar.	Música favorita: Ouvir música familiar pode ser reconfortante e relaxante. Liste qualquer música que a pessoa goste particularmente. Se a música for importante, a família pode ser orientada a trazer alguma música para tocar.	Favorite music: Listening to familiar music can be comforting and relaxing. List any music that the person particularly likes. If music is important, the family may be encouraged to bring some music to play.	Música favorita: Ouvir música conhecida pode ser reconfortante e relaxante. Liste qualquer música que a pessoa goste particularmente. Se a música for importante, a família pode ser orientada a trazer alguma música para tocar.
Things I like: List anything of particular importance to the person. E.g. 'my slippers' or 'my dressing gown'.	Coisas que eu gosto: Liste qualquer coisa de particular importância para a pessoa. Por exemplo, "meus chinelos" ou "meu roupão".	Coisas que eu gosto: Liste qualquer coisa/ item de particular importância para a pessoa, por exemplo: "minhas pantufas" ou "meu roupão".	Coisas que eu gosto: Liste qualquer coisa de particular importância para a pessoa. Por exemplo: "meus chinelos" ou "meu roupão".	Things I like: List anything of particular importance to the person. For example: "my slippers" or "my robe".	Coisas que gosto: Liste qualquer coisa de particular importância para a pessoa. Por exemplo: "meu relógio" ou "meus óculos" ou "conversar com as pessoas".

**Table 2.** Continued...

Original Version	Translated version - Portuguese (T1)	Translated version - Portuguese (T2)	Consensus version (T1+T2)	Back-translated version	Pre-Final Version
Places I like: This can include places the person enjoys reminiscing about, such as places they remember having lived or holidayed at in the past.	Lugares que eu gosto: Isso pode incluir lugares que a pessoa gosta de lembrar, como lugares em que ela se lembra de ter vivido ou passado férias no passado.	Lugares que eu gosto: Isso pode incluir lugares que a pessoa gosta de lembrar, como lugares em que lembra de ter vivido ou passado férias anteriormente.	Lugares que eu gosto: Isso pode incluir lugares que a pessoa gosta de lembrar, como lugares em que lembra de ter vivido ou passado férias anteriormente.	Places I like: This can include places that the person likes to remember, such as places they remember living or taking a vacation in the past.	Lugares que gosto: Isso pode incluir lugares que a pessoa gosta de lembrar, como lugares onde lembra ter vivido ou passado férias anteriormente.
Pets: It is important to know if the person has a particular pet they are attached to. People can often miss the closeness and familiarity of their pet. Knowing the pet name and talking about the pet can be reassuring for the person and support your communication with them. You can also ask the family to bring in any photos of the pet they may have.	Animais de estimação: É importante saber se a pessoa tem um animal de estimação específico ao qual ela é apegada. As pessoas muitas vezes podem sentir falta da proximidade e familiaridade de seu animal de estimação. Saber o nome do animal de estimação e falar sobre ele pode ser reconfortante para a pessoa e apoiar sua comunicação com ela. Você também pode pedir à família para trazer quaisquer fotos do animal de estimação que ela possa ter.	Animais de estimação: É importante saber se a pessoa tem um animal de estimação ao qual está vinculada emocionalmente. As pessoas costumam sentir falta da familiaridade e convivência com o seu animal. Saber o nome do animal de estimação e conversar sobre ele pode ser reconfortante para a pessoa e apoiar sua comunicação com ela. Você também pode solicitar que a família traga fotos do animal de estimação, caso tenham.	Animais de estimação: É importante saber se a pessoa tem um animal de estimação específico ao qual ela é apegada. As pessoas costumam sentir falta da proximidade e convivência com o seu animal de estimação. Saber o nome do animal de estimação e falar sobre ele pode ser reconfortante para a pessoa e apoiar sua comunicação com ela. Você também pode pedir à família para trazer fotos do animal de estimação, caso tenham.	Pets: It is important to know if the person has a specific pet that they are attached to. People often miss the closeness and companionship of their pet. Knowing the name of the pet and talking about it can be comforting to the person and help communicate with him/her. You can also ask family members to bring pictures of the pet if they have one.	Animais de estimação: É importante saber se a pessoa tem um animal de estimação específico ao qual ela é vinculada emocionalmente. As pessoas costumam sentir falta da proximidade e convivência com o seu animal de estimação. Saber o nome do animal de estimação e falar sobre ele pode ser reconfortante para a pessoa e apoiar sua comunicação com ela. Você pode também pedir à família para trazer fotos do animal de estimação, caso tenham.
Place of birth: Where the person was born.	Local de nascimento: Onde a pessoa nasceu.	Lugar de nascimento: Onde a pessoa nasceu.	Lugar de nascimento: Onde a pessoa nasceu.	Place of Birth: Where the person was born.	Local de nascimento: Onde a pessoa nasceu.
Other: This petal can be used to add any other important information. Things to think about include: Is there anything else we should know about the person? Is there anything they don't like? Is there anything that upsets them?	Outro: Esta pétala pode ser usada para adicionar qualquer outra informação importante. Coisas para pensar incluem: Há mais alguma coisa que devemos saber sobre a pessoa? Há algo que ela não gosta? Há algo que a incomoda?	Outros: Esta pétala pode ser usada para adicionar qualquer outra informação importante. Coisas/ itens a serem considerados incluem: Há outra informação importante que devemos saber sobre a pessoa? Há algo que ela não gosta? Há algo que a incomoda?	Outros: Esta pétala pode ser usada para adicionar qualquer outra informação importante. Coisas a serem consideradas incluem: Há mais alguma coisa que devemos saber sobre a pessoa? Há algo que ela não gosta? Há algo que a incomoda?	Other: This petal can be used to add any other important information. Things to consider include: Is there anything else we should know about the person? Is there anything they don't like? Is there anything that bothers them?	Outros: Esta pétala pode ser usada para adicionar qualquer outra informação importante. Informações a serem consideradas incluem: Há mais alguma coisa que devemos saber sobre a pessoa? Há algo que ela não gosta? Há algo que a incomoda?

respectively. In the "Hobbies and Leisure" petal, the activities "Gardening" and "Listening to the radio" were maintained, while "Stamp collecting" was removed, as it was considered an example that was not very representative of Brazilian culture.

In the "Favorite Music" petal, the musical styles chosen to exemplify were "Sertanejo" and "Pagode," replacing the term "Country" from the original version. In the "Pets" petal, "My caramel-colored dog" was chosen in order to get closer to Brazilian culture. In the "Places I like" petal, the committee of experts chose not to indicate a specific location or city. Instead, more generic and representative examples of Brazilian reality were used, such as "beach" and "countryside." In the "Place of birth" petal, the city of "Belo Horizonte" was chosen as an example, as it is the location where part of this study was conducted.

To verify the understanding of the items by the target audience, the pre-final version was applied to 10 participants, 60% women, aged between 43 and 79 years (Table 3). The instrument was applied between 24 and 96 hours after the participant's admission to the Intensive Care Unit. During the application, each item of the Sunflower Tool was supplemented with a question regarding comprehension, based on a dichotomous scale (easy or difficult) (Wild et al., 2005). All participants were able to answer all items of the Sunflower Tool in an average application time of 27.5 minutes. No participant presented doubts or conflicts regarding terminology, and the idiomatic, semantic, and cultural equivalence was considered satisfactory. The cross-cultural adaptation process was completed, and the instrument was named Sunflower-Brazil (Appendix A).

## Discussion

This study aimed to describe the cross-cultural adaptation process of the Australian English version of the Sunflower Tool for use in Brazil. The results obtained indicated adequate semantic, idiomatic, conceptual, and cultural equivalence, highlighting its potential use in Brazilian clinical practice. Cross-cultural adaptation aims to ensure that an instrument constructed in a specific language and culture is adapted in a way that does not alter its validity and conceptual equivalence when used in a different idiomatic and cultural context (Beaton et al., 2000; Wild et al., 2005). Therefore, this study carried out the cross-cultural adaptation of the Sunflower Tool, providing a version in Brazilian Portuguese, called Sunflower-Brasil.

The Sunflower Tool was developed in Australia and originally made available in English, requiring cross-cultural adaptation for use in the Brazilian context. During this process, the comparison between the original and back-translated versions indicated adequate semantic, idiomatic, and conceptual equivalence in most items. Cultural equivalence was achieved through specific adjustments made by the expert committee, such as replacing examples of musical genres and everyday activities with elements more representative of Brazilian culture, aiming to improve the understanding and acceptance of the tool. These adjustments included terms referring to popular musical genres in Brazil and everyday activities recognized by the target audience.

In the pre-final version testing phase, the comprehension of the items was analyzed by the target audience, with satisfactory results obtained regarding the comprehension of the items in a sample of 10 individuals. Similar results were found in previous studies (Avellar et al., 2021; Faria-Fortini et al., 2020; Khan & Stein, 2014; Traebert et al., 2022), indicating clarity and ease of comprehension of the items by the participants. This comprehension possibly stems from the use of simple language close to the Brazil-

**Table 3.** Sociodemographic and clinical characteristics of the study participants (n=10).

Age	Sex	Education	Profession	Marital status	Reason for hospitalization	Length of stay (ICU)	Use of mechanical ventilation	Occurrence of delirium
79	Male	Complete higher education	Electronic Engineer	Married/common-law marriage	Surgical	48 days	No	No
66	Female	Incomplete primary education	Dressmaker	Married/common-law marriage	Surgical	15 days	No	No
60	Female	Complete high school	Servant	Widow	Surgical	20 days	Yes	Yes
54	Male	Incomplete primary education	Merchant	Married/common-law marriage	Clinical	25 days	No	No
52	Male	High school diploma	Refrigeration technician	Single	Clinical	22 days	No	No
60	Female	Incomplete primary education	Maid	Single	Clinical	4 days	No	No
43	Female	Incomplete primary education	Housewife	Single	Clinical	15 days	No	No
73	Male	Incomplete primary education	Merchant	Widower	Clinical	15 days	No	No
51	Female	Incomplete primary education	Farmer	Single	Clinical	7 days	No	No
66	Female	Incomplete primary education	Maid	Single	Clinical	42 days	No	No

ian cultural reality, as well as detailed instructions for application and visual examples that facilitate the completion of the instrument.

Although no difficulties were observed in understanding the items, three participants showed low motivation during the application of the instrument. This can be attributed both to factors prior to hospitalization (Vieira et al., 2024) and to factors related to the hospitalization itself (Corgozinho et al., 2020; Leclerc et al., 2024; Mansour & Knauert, 2022; Claivaz et al., 2025). Among the pre-hospital factors, social isolation and the impoverishment of occupational repertoire stand out, especially in the elderly (Vieira et al., 2024), who often did not have opportunities to experience socialization and leisure activities similar to those addressed by Sunflower-Brasil. During hospitalization, factors such as sleep disturbances (Leclerc et al., 2024; Mansour & Knauert, 2022) and pain (Claivaz et al., 2025; Corgozinho et al., 2020) can reduce motivation to participate in the application of the instrument. Reduced volition during the application of assessments, interviews, or questionnaires is a relevant aspect to be considered by the mediator, as it can negatively influence the results (Gil, 2008). It is therefore recommended that the mediator be attentive and use strategies that can better engage the client, ensuring the quality of the information collected.

Humanizing care and practicing person-centered care are essential to ensure more effective and respectful treatment, especially in the hospital setting, which often evokes feelings of uncertainty about the future, suffering, and anxiety, both in the patient and their family (Nydahl et al., 2024; Meneses-La-Riva et al., 2021). By considering the patient as a unique being, with their own life history, preferences, and values, this care promotes an approach that goes beyond treating clinical conditions, seeking to address the individual holistically (Nydahl et al., 2024). Although person-centered practice has proven effective in humanizing care, there are challenges to its implementation in the hospital setting (Meneses-La-Riva et al., 2021). Tools such as the Sunflower Tool play an essential role in this process, as they allow the collection of information about the individual's life history, habits, and routines, assisting in the construction of a personalized care plan by adapting interventions to the particularities of each patient.

The methodology proposed by Beaton et al. (2000) ensured the face and content validity of the Sunflower-Brazil, this being the first stage in the validation process of an instrument. Therefore, it is expected that the Sunflower-Brazil will facilitate the implementation of multidisciplinary, client-centered care, contributing to more personalized and humanized care in hospital settings, with a potential positive impact on the quality of care provided and client satisfaction.

Among the strengths of this study, the following stand out: the rigorous and systematic application of internationally recommended steps for cross-cultural adaptation (Beaton et al., 2000; Wild et al., 2005), the use of a committee of experienced experts, and careful attention to Brazilian culture during the adaptation of the instrument. Another positive aspect was holding the expert meeting in Belo Horizonte, Minas Gerais (Southeast region), and testing the pre-final version in Belém, Pará (North region), demonstrating the research team's commitment to verifying the semantic and cultural equivalence of the instrument in diverse sociocultural and socioeconomic contexts across the country. However, on the other hand, a limitation was conducting the pilot test in only one institution. Additionally, young adults did not participate in the instrument comprehension verification stage. Taken together, these factors may compromise the representativeness of the sample and the generalizability of the results to other institutions, as well as to application in young adults.

Considering the strong theoretical alignment of the Sunflower Tool with client-centered practice, the instrument shows potential for clinical application in different populations and contexts, such as adults, long-term care facilities for the elderly, therapeutic residential services, among others. Future studies could investigate the application of the instrument in these care settings.

## Conclusion

The adapted version of the Sunflower Tool, called Sunflower-Brazil, demonstrated adequate semantic, idiomatic, conceptual, and cultural equivalence for the Brazilian context. The instrument showed good comprehension and ease of application by people with different educational and socioeconomic profiles. These results indicate the potential use of Sunflower-Brazil as a multidisciplinary clinical tool for developing individualized and humanized treatment plans in the Brazilian hospital setting.

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### **Author's Contributions**

Giovanna Alzi Alvarenga do Carmo Montijo: conceived and designed the study and contributed to the analysis, interpretation of the data, and drafting of the manuscript. Danielle de Fátima Pereira: conceived and designed the study and contributed to the acquisition, analysis, interpretation of the data, and drafting of the manuscript. Bárbara Pires de Andrade Lage Cabral: contributed to the analysis, interpretation of the data, and drafting and revision of the manuscript. Crystian Moraes Silva Gomes: contributed to the analysis, interpretation of the data, and drafting and revision of the manuscript. Iza Faria-Fortini: conceived, designed, and supervised the study, contributed to the analysis, interpretation of the data, drafting, and critical revision of the manuscript. All authors approved the final version of the text.

### **Data Availability**

The data supporting the results of this study are available from the corresponding author upon request.

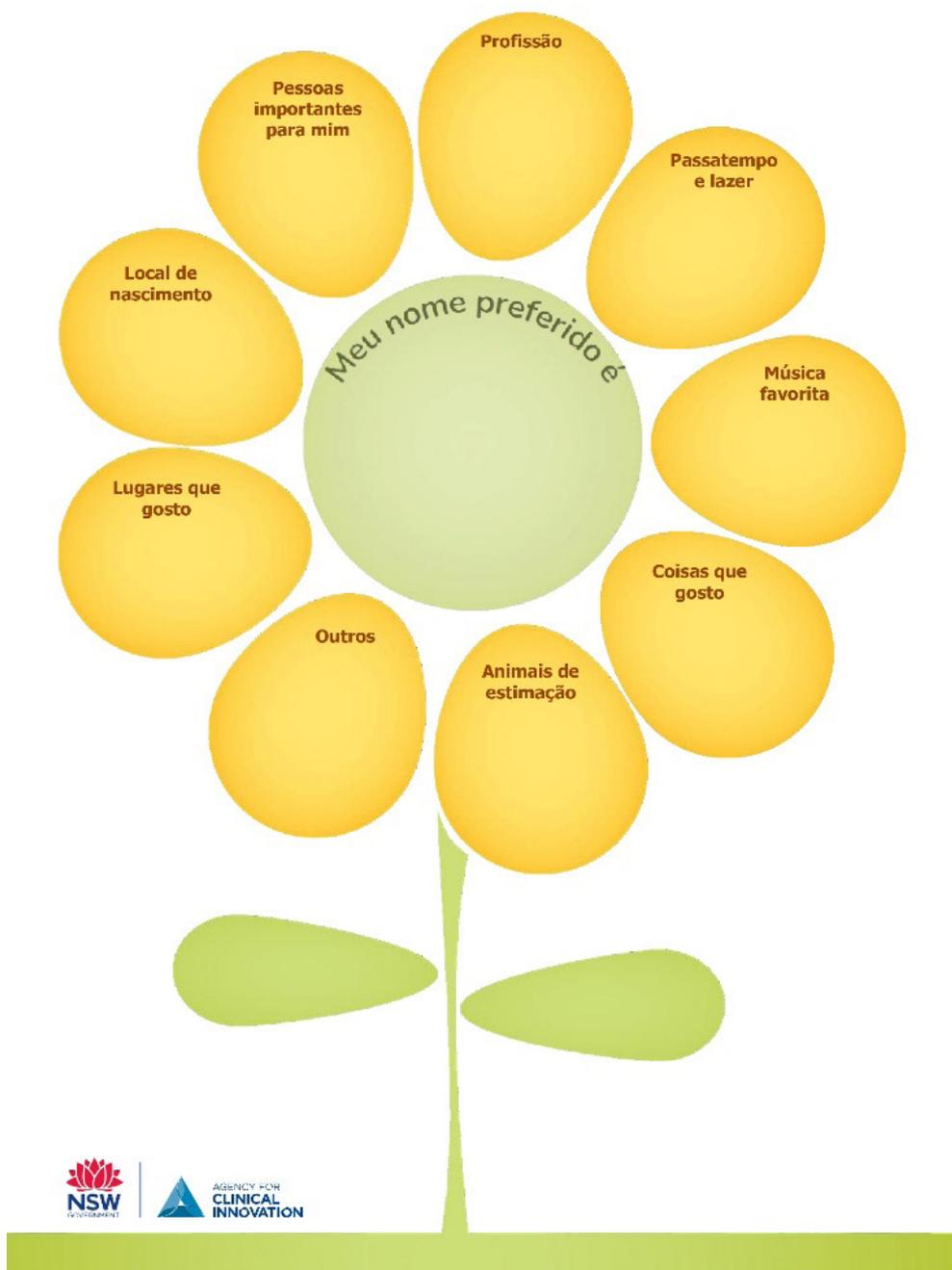
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## Appendix A. Sunflower-Brazil.



## Guia para preenchimento

O objetivo deste girassol é apoiar os cuidados centrados na pessoa idosa hospitalizada com comprometimento cognitivo ou demência. Ele pode ser preenchido com a pessoa, com a sua família, com os cuidadores ou ambos.

O miolo do girassol identifica o nome da pessoa ou como ela gosta de ser chamada. Cada pétala é projetada para coletar informações importantes e individualizadas sobre a pessoa. Abaixo está um guia geral sobre o que pode ser incluído.

### Pessoas importantes para mim

Liste o primeiro nome de familiares ou amigos importantes.

### Profissão

Liste a ocupação principal ou mais importante da pessoa.

### Passatempo e lazer

Liste interesses em passatempo e lazer que foram ou ainda são importantes para a pessoa, por exemplo: pesca, jardinagem, futebol, tricô, assistir TV, ouvir rádio etc. Se a pessoa gosta de um programa de TV específico, isso também pode ser listado aqui.

### Música favorita

Ouvir música conhecida pode ser reconfortante e relaxante. Liste qualquer música que a pessoa goste particularmente. Se a música for importante, a família pode ser orientada a trazer alguma música para tocar.

### Coisas que gosto

Liste qualquer coisa de particular importância para a pessoa. Por exemplo: "meu relógio" ou "meus óculos" ou "conversar com as pessoas".

### Lugares que gosto

Isso pode incluir lugares que a pessoa gosta de lembrar, como lugares onde lembra ter vivido ou passado férias anteriormente.

### Animais de estimação

É importante saber se a pessoa tem um animal de estimação específico ao que ela é vinculada emocionalmente. As pessoas costumam sentir falta da proximidade e convivência com o seu animal de estimação. Saber o nome do animal de estimação e falar sobre ele pode ser reconfortante para a pessoa e apoiar sua comunicação com ela. Você pode também pedir à família para trazer fotos do animal de estimação, caso tenham.

### Local de nascimento

Onde a pessoa nasceu.

### Outros

Esta pétala pode ser usada para adicionar qualquer outra informação importante. Informações a serem consideradas incluem: Há mais alguma coisa que devemos saber sobre a pessoa? Há algo que ela não gosta? Há algo que a incomoda?

