







## Cultural adaptation of the Families' Importance in Nursing Care–Nurses' Attitudes to Brazilian Portuguese\*

Adaptação cultural do Families' Importance in Nursing Care–Nurses' Attitudes para o português do Brasil

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### Abstract

**Objectives:** to validate the content and test the applicability and understanding of the Families' Importance in Nursing Care–Nurses' Attitudes (FINC-NA) to Brazilian culture. **Method:** this is methodological research that involved translation, synthesis, back-translation, equivalence assessment (semantic, idiomatic, conceptual and experimental), content validity, pre-test and report submission. Thirteen judges assessed the translation equivalence and the instrument's content validity. Applicability, understanding of items and internal consistency were verified in a pre-test with 37 nurses. In the analyses, Fleiss' Kappa (FK) and Cronbach's alpha were used. **Results:** agreement among judges was considered high in relation to clarity, objectivity, relevance, accuracy, and simplicity (FK  $\geq 0.72$ ). In the pre-test, Cronbach's alpha of the four domains ( $\alpha \geq 0.81$ ) and the general internal consistency (0.86) were high. **Conclusion** the cultural adaptation of FINC-NA to Brazilian culture was considered adequate and the instrument could be psychometrically tested.

**Descriptors:** Validation Study; Attitude; Family Nursing; Nursing; Family

## Resumo

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**Objetivos:** validar o conteúdo e testar a aplicabilidade e compreensão do *Families' Importance in Nursing Care–Nurses' Attitudes* (FINC-NA) à cultura brasileira. **Método:** pesquisa metodológica que envolveu as etapas de tradução, síntese, retrotradução, avaliação de equivalências (semântica, idiomática, conceitual e experimental), validade de conteúdo, pré-teste e envio dos relatórios. Treze juízes avaliaram as equivalências da tradução e a validade de conteúdo do instrumento. A aplicabilidade, compreensão dos itens e a consistência interna foram verificadas em pré-teste com 37 enfermeiros. Nas análises, utilizados Kappa de Freiss (FK) e alfa de Cronbach. **Resultados:** a concordância entre os juízes foi considerada alta em relação à: Clareza, Objetividade, Pertinência, Precisão e Simplicidade (FK  $\geq 0,72$ ). No pré-teste, o alfa de Cronbach dos quatro domínios ( $\alpha \geq 0,81$ ) e a consistência interna geral (0,86) se apresentaram altos. **Conclusão:** a adaptação cultural do FINC-NA para a cultura brasileira foi considerada adequada e o instrumento poderá ser testado psicometricamente.

**Descritores:** Estudos de Validação; Atitude; Enfermagem Familiar; Enfermagem; Família

## Resumen

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**Objetivos:** validar el contenido y probar la aplicabilidad y comprensión del *Families' Importance in Nursing Care–Nurses' Attitudes* (FINC-NA) a la cultura brasileña. **Método:** investigación metodológica que involucró las etapas de traducción, síntesis, retrotraducción, evaluación de equivalencias (semántica, idiomática, conceptual y experimental), validez de contenido, pre-test y envío de los informes. Trece jueces evaluaron las equivalencias de la traducción y la validez del contenido del instrumento. La aplicabilidad, comprensión de los ítems y la consistencia interna fueron verificadas en pre-test con 37 enfermeros. En los análisis, fueron utilizados Kappa de Freiss (FK) y alfa de Cronbach. **Resultados:** la concordancia entre los jueces fue considerada alta respecto a la: Claridad, Objetividad, Pertinencia, Precisión y Simplicidad (FK 0,72). En el pre-test, el alfa de Cronbach de los cuatro dominios ( $\alpha \geq 0,81$ ) y la consistencia interna general (0,86) se presentaron altos. **Conclusión:** la adaptación cultural del FINC-NA para la cultura brasileña fue considerada adecuada y el instrumento podrá ser probado psicométricamente.

**Descriptores:** Estudio de Validación; Actitud; Enfermería Familiar; Enfermería; Familia

## Introduction

Family involvement in patient nursing care increases safety and quality of care.<sup>1</sup> In the care process, nurses are in a privileged situation to promote family involvement. However, professionals' attitudes and beliefs can help or hinder this approximation practice.<sup>2</sup>

Research addresses the benefits of nursing interventions, in the sense that the promotion of secure bonds and relational psychosocial support among family members improve patient care outcomes.<sup>3-4</sup> Despite this, barriers to the inclusion of families in care include the lack of organizational structures and processes, such as time allocated to nurses' work, restricted access policy or fragmentation in the provision of collaborative care.<sup>5</sup>

To assess nurses' attitude, beliefs and perceptions in relation to family collaboration, it is important to apply reliable, robust and validated instruments, so that their results allow the operationalization of health strategies that are appropriate to different realities. Despite the progress in scientific production on the subject, it is noted that there is a lack of instruments that assess the attitude of these professionals related to families in the national context. In addition, there is a need to explore the perception of nurses in relation to families and their role in the improvement of family caregivers.<sup>6</sup>

The importance of families for the well-being and recovery of hospitalized patients is highlighted;<sup>1</sup> however, the implementation of practices that promote and support their participation in patient care has been slow.<sup>7</sup> According to the literature,<sup>8</sup> this is partly due to nurses' negative attitudes and insufficient professional skills to deal with them. In order to investigate such attitudes, international studies were carried out using the instrument Families' Importance in Nursing Care – Nurses' Attitudes (FINC-NA).<sup>6,9-12</sup>

The FINC-NA is a self-administered scale-type instrument, developed in 2008 in Sweden and available in English, which allows the measurement of nurses' attitudes towards family participation in nursing care provided in the different contexts in which they work.<sup>13-14</sup> It consists of 26 items, distributed into four domains, which in this study were translated as "*A família como recurso no cuidado de Enfermagem*", "*A família como interlocutora*", "*A família como um fardo*", and "*A família como recurso próprio*", that address the cognitive (I think), affective (I feel) and behavioral (in my work) dimensions.

The FINC-NA responses are presented on a five-point Likert scale: 1 – I totally disagree and up to 5 - totally agree. The higher the score obtained, the more favorable nurses' attitude towards families.<sup>14</sup> This instrument has already been adapted and validated in other countries, such as Australia, Germany, Portugal, Finland and the Netherlands,<sup>2,15-19</sup> and considers all its members, neighbors or other significant people as a family.<sup>14</sup>

However, self-administered instruments, to be used in countries/cultures other than the one where they were developed, must be psychometrically tested and demonstrate reliability in independent samples,<sup>2</sup> and the first steps of this process involve its translation and content validation. Although the FINC-NA has already demonstrated its usefulness to observe phenomena such as nurses' beliefs, attitudes and perceptions about the family and their participation in care, in Sweden and in the countries where it was translated and adapted, it was

observed that this still did not occur in Brazil.

It should be noted that cross-cultural adaptation procedures and validation of research instruments have gained ground in the health area as a tool for the development of practice and science.<sup>20-21</sup> In this perspective, adapting instruments that have already been created, rather than developing a new one, is a viable and useful alternative, as it requires fewer resources and facilitates comparison between different contexts and populations.<sup>20</sup>

This study was proposed considering the relevance of the involvement of families in the nursing care process and the use of FINC-NA for nursing practice in the international context. Furthermore, to be correctly used, the translated instrument must maintain semantic and idiomatic equivalence with the original version and be culturally and conceptually adapted to the context for which it is intended. Thus, this study aimed to validate the content and test the applicability and understanding of the FINC-NA to Brazilian culture.

## Method

This is a methodological study, developed from December 2018 to October 2019, in Maringá, Paraná (PR). It is noteworthy that before its beginning, authorization was obtained from the two main FINC-NA authors to carry out its translation and adaptation to Brazilian culture.

The process of translation and cultural adaptation was guided by the Beaton<sup>22</sup> framework, involving the following steps: a) Initial translation into Portuguese; b) Synthesis of translations; c) Back-translation to the original language; d) Assessment by an expert committee; e) Content validity; f) Pre-test; g) Submission of process reports and the final translated version to the expert committee and the authors of the instrument. It is noteworthy that content validity is not a step proposed by Beaton, but was inserted because it is considered essential in the field of psychometry.<sup>23</sup>

a) Translation of FINC-NA from English into Brazilian Portuguese.

Two professionals selected for convenience, according to the cultural adaptation framework of instruments participated in this stage.<sup>22</sup> The inclusion criteria were being Brazilian, having Portuguese as a native language and being fluent in English. Each translator produced a written translation report (T1 and T2) in which comments were included to

highlight the terms or phrases that generated uncertainty and also the justifications for the final choices.

b) Synthesis of the two translations (T1 and T2).

It was held in a virtual meeting, previously scheduled according to translators' availability and mediated by the researcher. The meeting lasted an average of one hour, when all items of the instrument were reviewed and discrepancies or divergences between translations were discussed, until consensus was reached, resulting in the T12 version.

c) Back-translation of the T12 version – for the original language.

Back-translation is intended to verify the validity of the translated version and identify gross inconsistencies or conceptual errors.<sup>11</sup> It was performed by two other independent translators, who met the following criteria: having English as their native language, mastering the Portuguese language and knowing Brazilian culture. They were selected based on indication and were not informed about the objectives of the instrument and/or the study, to avoid risk of translation bias. This process gave rise to versions BT1 and BT2, which were not synthesized, as the purpose of this step is to avoid biases that could trigger the emergence of unexpected meanings in the items of the translated questionnaire and increase the probability of identifying imperfections.<sup>22</sup>

d) Assessment by an expert committee

The expert committee verified the semantic, idiomatic, conceptual and experimental equivalence between the translated and the original instrument. It was made up of 13 judges – experts, invited to participate in the study via electronic message. They were located in consultation with the CNPq Directory of Research Groups using the terms “family” and “nursing” and in the list of accredited professors in Graduate Nursing programs in Brazil. The inclusion criteria were: being a nurse, having knowledge of the English language and experience in assessing the psychometric properties of measuring instruments and/or working in teaching, research and/or family care. The experience was identified from the record of academic and scientific production in the area of family nursing, and/or adaptation of instruments.

The specialists who agreed to participate in the study received, via email, the Informed Consent Form (ICF), the synthesis version of the translation (T12), the two back-translations, the original version of FINC-NA and an instrument, prepared by the researcher, containing

questions related to semantic, idiomatic, cultural and conceptual equivalence between the translated synthesis version (T12) and the original version of FINC-NA. The instrument used in the assessment had three response options: not equivalent, partially equivalent and equivalent, in addition to providing space to issue suggestions for improving the translation.

Agreement among experts was verified by applying Fleiss' Kappa coefficient (FK), in which FK is the relationship between the proportion of times that evaluators agree (corrected for chance agreement) with the maximum proportion of times that evaluators could agree (corrected for chance agreement). The following criteria were used in the analysis: weak agreement ( $0.21 \geq FK \leq 0.40$ ), moderate agreement ( $0.41 \geq FK \leq 0.60$ ), substantial agreement ( $0.61 \geq FK \leq 0.80$ ) and perfect agreement ( $0.81 \geq FK \leq 1.00$ ).<sup>23</sup> Items with weak or moderate agreement were reassessed by the same experts, who were able to select the one they considered most appropriate from the suggestions presented in the first round. A total of 12 of the 13 experts participated in the second round, as one did not return the assessment. They were able to accept, modify or add new suggestions. For the version submitted for content validation, it was decided to maintain the suggestion with the highest percentage of choice by the experts, without carrying out a new round.

#### e) Content validation

It was performed by 14 judges – seven of those who had participated in the assessment stage and seven new ones who met the same criteria of that stage. It is noteworthy that in the content validation, guidelines were followed by Pasquali, who appoints participants as judges.<sup>23</sup>

To carry out the validation, a link to access an electronic form on Google Forms was sent to analyze each item of the translated instrument as to relevance, clarity, objectivity, simplicity, and accuracy. "Relevance" assesses whether the item is relevant and meets the purpose relating to the procedure/attribute; "Clarity", if the item is explained clearly, simply and unequivocally; "Objectivity", if the item allows a punctual/desirable response; "Simplicity", if expresses a single idea; and "Accuracy", if each item fits the attribute and is distinct from the others.<sup>23</sup> The assessment was recorded on a three-point Likert-type scale: 0 for absence of an attribute, 1 for little present and 2 for present. Moreover, in all items, space was made available for recording suggestions.

To assess the agreement among judges, the FK test was applied following the same criteria as the equivalence assessment. All items with weak or moderate FK were revised.

#### f) Pre-test

Its objective was to test the instrument in a pilot sample, verify its applicability and the understanding of the items. As Beaton does not present details of this stage, it only recommends the participation of 30 to 40 people. In its implementation, Pasquali's recommendations were followed, who advocates the same number of participants.<sup>23</sup> Thus, 37 nurses selected for convenience and who met the following inclusion criteria participated in the pre-test: being a regular student or professor of Graduate Program in Nursing at the *Universidade Estadual de Maringá*, attending the institution during the week dedicated to data collection.

It is noteworthy that, in the definition of participants in this stage, it was considered that the fact of being a nursing graduate in itself was indicative of approximation or at least previous contact with patients' relatives, whether in the internship field or in clinical practice in the hospital environment and/or primary care.

Nurses who agreed to participate in the study received the translated and adapted version of FINC-NA, along with two copies of the ICF and an instrument prepared by the researcher. This consisted of two parts: the first addressed sociodemographic and professional characteristics; the second contained space for recording impressions about FINC-NA.

The instrument's reliability was verified by its internal consistency, by applying Cronbach's alpha coefficient, testing the change in its value according to the hypothetical removal of items from the scale, with verification of correlations between responses. A Cronbach's alpha above 0.7 was established as ideal. In the item correlation analysis, items with a correlation above 0.3 were considered adequate.

#### g) Submission of reports to an expert committee and the authors of the instrument.

All reports and the final translated version were sent via email to the expert committee members and to the two main authors of FINC-NA. Data from all steps were recorded in a spreadsheet in Microsoft Office Excel® and analyzed in the Statistical Analysis Software Program (SAS, version 9.4), applying specific statistical tests at each step, as already described.

The research was approved in 2018 by the Institutional Review Board of the *Universidade Estadual de Maringá* (Opinion 2,853,442) and was conducted in accordance with the required ethical standards (Resolutions 466/2012 - 510/2016 - 580/2018 of the Ministry of Health). Participants at all stages signed and/or registered their agreement online with the ICF.

## Results

Two translators participated in the first stage (translation), one being a doctor in nursing and the other a master in linguistics. Of the 31 aspects assessed (26 items of the instrument, main title and four subtitles), 27 (87%) presented some discrepancy in T1 and T2.

In the step of synthesis of translations, discrepancies related to synonymous words in Portuguese were identified. For example: "eases my workload" was translated into "*ameniza minha carga de trabalho*" and "*alivia minha carga de trabalho*", choosing the former; "care period" into "*turno de trabalho*"; "*período de cuidado*", choosing the latter; "burden" into "*fardo*" and "*peso*", choosing the former. There were also differences in terms of the health area: "family members" into "*membros da família*" and "*familiares*" choosing the latter; "patient's care" into "*cuidado do paciente*" and "*cuidado para com o paciente*", choosing the former. Four items (13%), one from each subscale, presented identical translation.

Subsequently, all conflicting terms were sorted out with the two translators. In this process, the terms chosen were the most appropriate from a semantic and idiomatic point of view and maintained by consensus. Considering the target audience of the instrument - nurses - we opted for terms most used in the area of health, without changing the meaning expressed in the original, in order to facilitate the understanding of respondents: "*cuidado para com o paciente*" for "*cuidado do paciente*"; "*condições*" for "*estado de saúde*". Also, we opted for simpler terms for understanding: "*parceira conversacional*" for "*parceira de conversa*"; "*parceiros colaborativos*" for "*parceiros colaboradores*".

The summary version of the consensus meeting was back-translated into English. In this version, 16 items (52%) were identical and the words that diverged between BT1 and BT2 in the other 15 items were considered synonymous, demonstrating that the synthesis version T12 corresponded to the original version of the instrument.

In the first assessment, substantial agreement was obtained in conceptual, experimental and idiomatic equivalence; and almost perfect agreement on semantic



equivalence. All items with weak or moderate equivalence were revised; with this, items 10, 11 and 14, which showed the highest degree of commitment, were improved in the second round.

With regard to suggestions, in the first assessment, 119 suggestions were presented by the 13 experts, who considered 18 items (58%) equivalent to the original version in all aspects with substantial or perfect FK. Another 13 items (42%) showed weak or moderate equivalence in at least one of the aspects assessed and only one specialist indicated that item 2 was not equivalent in the experimental aspect. In the second assessment, it was considered that the items with the highest percentage of choice best represented the intended meaning of the original instrument, the FK not being checked again.

At the end of the assessment stage, content validation began. All judges who participated in this stage had a PhD and were professors of Undergraduate and Graduate Courses in Nursing at public Brazilian universities (federal and state universities). Of these, nine (64%) were postdocs; worked in the nursing area for an average of 24 years (SD 10.26); worked with families on average for 19 years (SD 9.5), more specifically with children (42.9%), adults (21.4%), newborns (14.3%), women, mental health and elderly (7.1% respectively); worked in southern (57.8%), southeastern (21.4%), northeastern (14.3%) and midwestern (7.1%) Brazil.

The FK results of the 1<sup>st</sup> stage of content validation are shown in Table 1.

**Table 1** - Fleiss' Kappa of each item of the instrument referring to clarity, objectivity, relevance, accuracy and simplicity after the first assessment. Maringá, PR, Brazil, 2020.

Domain	Item	FK-C*	FK-O†	FK-Pe‡	FK-Pre§	FK-S
Family as a resource in nursing care	3	0.60	0.60	1.00	1.00	0.79
	4	1.00	0.79	1.00	0.79	1.00
	5	1.00	1.00	1.00	0.79	0.79
	7	0.46	0.60	1.00	0.46	0.79
	10	0.60	1.00	1.00	1.00	1.00
	11	0.79	0.60	1.00	1.00	0.79
	13	0.79	1.00	1.00	1.00	1.00
	20	0.79	0.79	0.60	0.60	0.79
	21	0.46	0.60	0.49	0.46	0.60
	22	0.60	1.00	0.60	0.60	0.79
Family as a conver	1	0.60	0.60	0.60	0.46	0.60
	6	1.00	1.00	1.00	1.00	1.00
	9	1.00	0.79	1.00	0.79	0.79

Family as a burden	12	1.00	0.79	0.79	1.00	0.79
	14	0.79	0.79	0.79	0.79	0.60
	15	0.60	0.60	1.00	0.60	0.46
	19	0.79	0.79	0.46	0.60	0.79
	24	0.46	0.60	0.79	0.60	0.60
	2	0.79	1.00	1.00	0.79	1.00
	8	1.00	1.00	1.00	1.00	0.79
	23	0.46	0.60	0.46	0.60	0.46
	26	1.00	1.00	1.00	1.00	1.00
	16	0.79	0.60	0.79	0.60	0.60
Family as own resource	17	0.79	0.79	1.00	0.79	0.79
	18	0.29	0.79	1.00	0.46	0.79
	25	1.00	1.00	1.00	1.00	1.00

FK-C\* Fleiss' Kappa – Clarity; FK-O† Fleiss' Kappa-Objectivity; FK-Pe‡ Fleiss' Kappa-Relevance; FK-Pre§ Fleiss' Kappa-Accuracy; FK-S|| Fleiss' Kappa-Simplicity.

As shown in Table 2, the general FK for each item assessed reached a value above 0.7; the percentage of agreement for the assessed variables obtained more than 80%. Overall, the agreement index between evaluators was lower for accuracy; regarding item relevance, the test showed perfect agreement (FK 0.82) among judges in the first stage of content validation.

**Table 2** - Agreement for clarity, objectivity, relevance, accuracy and simplicity regarding the Families' Importance in Nursing Care–Nurses' Attitudes (FINC-NA), Maringá, PR, Brazil, 2020.

FINC-NA equivalence	AP*	FK†	95%AI‡	Agreement
Clarity	81.11	0.72	[0.64 – 0.80]	Substantial
Objectivity	83.98	0.76	[0.69 – 0.83]	Substantial
Relevance	88.90	0.83	[0.76 – 0.91]	Perfect
Accuracy	81.07	0.72	[0.63 – 0.80]	Substantial
Simplicity	84.37	0.77	[0.70 – 0.83]	Substantial

AP\* Agreement Percentage; FK† Fleiss' Kappa; AI‡ Agreement Index.

It is noteworthy that the items that did not show substantial or perfect agreement were reviewed in a second stage with a view to obtaining agreement among judges. In this second round of assessment, there was an agreement among judges to maintain the instrument's original acronym, FINC-NA.

In the pre-test stage, among the 37 nurses who participated, 23 were graduate students, eight master's and 15 doctoral students; the others were professors. Although all

instruments were self-applied, the main researcher remained on site and made himself available to clarify any doubts. However, when filling out the instrument, there was no need for any interference, as there were no questions asked by participants. Furthermore, in the space provided for this purpose, they also did not present suggestions for changes, which may be indicative of a good understanding of their questions. It is noteworthy that the average time to complete was approximately eight minutes.

As for the sociodemographic characteristics, for information purposes, it was found that the participants were aged between 24 and 59 years, with a mean of 35.7 years (SD = 9.8); 34 were female; 25 were married or in a stable relationship; 10 were single; one was separated and the other was a widower. Eight had someone in the family who needed care and 34 (92%) had already developed some work related to nursing with the family.

In assessing the reliability of the 26 items (Table 3), the instrument showed adequate internal consistency, with a Cronbach's alpha coefficient ( $\alpha$ ) of 0.86. The individual analysis of the components resulted in  $\alpha = 0.81, 0.82, 0.81$  and  $0.83$ , respectively, for the subscales "Family as a resource in care", "Family as a conversational partner", "Family as a burden" and "Family as own resource". It is noteworthy that at this stage of the study, the same domains and respective items presented in the original version of the instrument were maintained. That is, no changes were made.

**Table 3** - Correlation and Cronbach's alpha of the 26 items separated by four FINC-NA domains. Maringá, PR, Brazil, 2020

Domain	Item	C*	$\alpha^{\dagger}$
Family as a resource in nursing care $\alpha 0.81$	3- A good relationship with family members gives me job satisfaction	0.20	0.82
	4- Family members should be invited to actively take part in the patient's nursing care	0.48	0.79
	5- The presence of family members is important to me as a nurse	0.59	0.78
	7- The presence of family members gives me a feeling of security	0.60	0.77
	10- The presence of family members eases my workload	0.51	0.78
	11- Family members should be invited to actively take part in planning patient care	0.73	0.76
	13- The presence of family members is important for the family members themselves	0.21	0.82
	20- Getting involved with families gives me a feeling of being useful	0.50	0.79
	21- I gain a lot of worthwhile knowledge from families which I can use	0.48	0.79

Family as a conversational partner 0.82	in my work		
	22- It is important to spend time with families	0.20	0.82
	1- It is important to find out what family members a patient has	0.19	0.84
	6- I ask family members to take part in discussions from the very first contact, when a patient comes into my care	0.74	0.77
	9- Discussion with family members during first care contact saves time in my future work	0.55	0.79
	12- I always find out what family members a patient has	0.53	0.80
	14- I invite family members to have a conversation at the end of the care period	0.62	0.78
	15- I invite family members to actively take part in the patient's care	0.65	0.78
	19- I invite family members to speak about changes in the patient's condition	0.49	0.80
	24- I invite family members to speak when planning care	0.54	0.80
Family as a burden 0.81	2- The presence of family members holds me back in my work	0.56	0.80
	8- I don't have time to take care of families	0.59	0.78
	23- The presence of family members makes me feel that they checking up on me	0.70	0.73
Family as own resource 0.83	26- The presence of family members makes me feel stressed	0.68	0.74
	16- I ask families how I can support them	0.70	0.77
	17- I encourage families to use their own resources so that they have the optimal possibilities to cope with situations by themselves	0.54	0.84
	18- I consider family members as cooperating partners	0.72	0.76
	25- I see myself as a resource for families so they cope as well as possible with their situation	0.70	0.77

C\* Correlation with the total; α Cronbach's alpha if an item were removed. Spectral 10

The adaptation of the translated version was completed with the application of the pre-test, when participants' understanding of the instrument was verified. After the adaptation steps, the reports and the final translated version (presented in Chart 1) were sent to experts and authors of the instrument.

**Chart 1** – Original version and translated version of FINC-NA, Maringá, PR, Brazil, 2020.

Original version	Translated version
<b>Family as a resource in nursing care</b>	<b><i>A família como recurso no cuidado de Enfermagem</i></b>
3. A good relationship with family members gives me job satisfaction	<i>3. Um bom relacionamento com os familiares me proporciona satisfação no trabalho</i>
4. Family members should be invited to actively take part in the patient's nursing care	<i>4. Os familiares deveriam ser convidados a participar ativamente do cuidado de enfermagem ao paciente</i>
5. The presence of family members is important to me as a nurse	<i>5. A presença de familiares é importante para mim como enfermeiro(a)</i>
7. The presence of family members gives me a	<i>7. A presença de familiares me traz uma sensação</i>

feeling of security	<i>de segurança</i>
10. The presence of family members eases my workload	<i>10. A presença da família facilita meu trabalho</i>
11. Family members should be invited to actively take part in planning patient care	<i>11. Os familiares deveriam ser convidados a participar ativamente do planejamento do cuidado ao paciente</i>
13. The presence of family members is important for the family members themselves	<i>13. A presença dos familiares é importante para eles mesmos</i>
20. Getting involved with families gives me a feeling of being useful	<i>20. Envolver-me com os familiares me dá a sensação de ser útil</i>
21. I gain a lot of worthwhile knowledge from families which I can use in my work	<i>21. Eu aprendo muitas coisas importantes com os familiares que podem ser aplicadas ao meu trabalho.</i>
22. It is important to spend time with families	<i>22. É importante dedicar tempo às famílias</i>
<b>Family as a conversational partner</b>	<b><i>A família como interlocutora</i></b>
1. It is important to find out what family members a patient has	<i>1. É importante descobrir quais familiares o paciente tem.</i>
6. I ask family members to take part in discussions from the very first contact, when a patient comes into my care	<i>6. No primeiro contato com os familiares, convido-os a participar das discussões sobre o planejamento dos cuidados ao paciente</i>
9. Discussion with family members during first care contact saves time in my future work	<i>9. Conversar com os familiares durante o primeiro contato com o paciente otimiza tempo ao desenvolver meu trabalho no futuro.</i>
12. I always find out what family members a patient has	<i>12. Eu procuro sempre saber quais são os familiares de um paciente.</i>
14. I invite family members to have a conversation at the end of the care period	<i>14. Eu convido os familiares para uma conversa após finalizar o cuidado</i>
15. I invite family members to actively take part in the patient's care	<i>15. Eu convido os familiares a participar ativamente no cuidado do paciente.</i>
19. I invite family members to speak about changes in the patient's condition	<i>19. Eu convido os familiares para conversar sobre as mudanças no estado de saúde do paciente.</i>
24. I invite family members to speak when planning care	<i>24. Eu convido os familiares para conversar quando eu estou fazendo o plano de cuidados.</i>
<b>Family as a burden</b>	<b><i>A família como um fardo</i></b>
2. The presence of family members holds me back in my work	<i>2. A presença de familiares atrapalha o desempenho do meu trabalho.</i>
8. I don't have time to take care of families	<i>8. Eu não tenho tempo para cuidar dos familiares.</i>
23. The presence of family members makes me feel that they are checking up on me	<i>23. A presença de familiares me dá a sensação de estar sendo observado.</i>
26. The presence of family members makes me feel stressed	<i>26. A presença de familiares faz com que eu me sinta estressada.</i>
<b>Family as own resource</b>	<b><i>A família como recurso próprio</i></b>
16. I ask families how I can support them	<i>16. Eu pergunto às famílias como posso ajudá-los.</i>
17. I encourage families to use their own resources so that they have the optimal possibilities to cope with situations by themselves	<i>17. Encorajo as famílias a utilizar recursos próprios para que possam ter as melhores condições de enfrentar a situação sozinhas.</i>
18. I consider family members as cooperating partners	<i>18. Eu considero os familiares como parceiros colaboradores.</i>
25. I see myself as a resource for families so that	<i>25. Eu me vejo como um recurso para ajudar a</i>

they can cope as well as possible with their situation					<i>família a lidar o melhor possível com a situação que estão enfrentando.</i>				
Strongly disagree				Strongly agree	<i>Discordo totalmente</i>				<i>Concordo totalmente</i>
1	2	3	4	5	1	2	3	4	5

The percentage of agreement among judges above 80% in content validation, with FK results above 0.7 for the five items verified, evidenced the clarity, objectivity, relevance, accuracy, and simplicity of FINC-NA items in the process of cultural adaptation.

## Discussion

The translated instrument showed satisfactory equivalence and adequate FK, in all aspects, compared to the original version. In the cross-cultural adaptation process, this is relevant to obtain the necessary equivalence for the applicability and reproducibility of the questionnaire<sup>20</sup>, which, in this case, is intended for the Portuguese Brazilian language.

The adaptation of instruments requires a rigorous and consistent methodology, in order to guarantee semantic, idiomatic, conceptual and experimental equivalence, in addition to the linguistic qualities between the original and translated versions.<sup>24-25</sup> In this study, experts indicated changes in 42.0% of the instrument's items, which, according to the adopted framework,<sup>22</sup> is considered a reasonable proportion of necessary adjustments.

Other studies of cross-cultural adaptation of instruments in the health area carried out in Brazil, following the same methodology, do not refer to the percentage of modified items,<sup>26-27</sup> and this makes it impossible to compare and understand how often changes are needed during the adaptation process. It is noteworthy that not even studies on the adaptation of FINC-NA to other cultures made reference to the proportion of language modifications/adjustments carried out to maintain meaning.<sup>15-17</sup>

The cross-cultural adaptation process is extensive, contains organized stages and requires collective effort, as it is not a simple translation. For its operationalization, a judge committee must consist of professionals with training, qualification and experience necessary to carry out relevant judgments and take assertive decisions, as they will be co-responsible for the pre-final version of the instrument.<sup>22,24-25</sup> In this regard, the content validity stage proved to be essential for the adaptation of FINC-NA, as it counted on the different experiences and experiences of those

involved. According to the literature,<sup>28</sup> actions of this type contribute to standardization of terms, making items clearer and easier to understand in the culture for which they are intended.

The successful results obtained in the pre-test confirmed the possibility of good adaptability of FINC-NA to Brazilian language and culture, as occurred in adaptations carried out in other countries such as Australia,<sup>2</sup> Germany,<sup>15</sup> Portugal,<sup>16</sup> Spain,<sup>17</sup> Finland,<sup>18</sup> and the Netherlands.<sup>19</sup> It is noteworthy that in Australia the cross-cultural adaptation stage was not carried out, as the instrument's native language is English. The adaptation carried out in Spain used the method of direct and back-translation;<sup>17</sup> Portugal carried out direct operationalization;<sup>16</sup> Holland carried out bidirectional translation;<sup>19</sup> and studies that reported the adaptation of FINC-NA in Finland and Germany did not mention the method used to translate the instrument.<sup>15,18</sup>

The FINC-NA Cronbach's alpha in the four subscales of the instrument was above 0.70 ( $\alpha=0.81$ ,  $\alpha=0.82$ ,  $\alpha=0.81$  and  $\alpha=0.83$ ), already demonstrating high reliability in the pre-test. These results were similar to those observed in the original version of FINC-NA (0.86; 0.83; 0.72 and 0.78). However, the correlation of items 1, 3, 13 and 22 was below 0.3. Thus, according to the pre-test results, these items would need to be removed, but it was decided to keep them until the FINC-NA is applied to a larger sample.

It is noteworthy that in this study, the pre-test was carried out with the sole purpose of verifying the understanding of the items in a pilot sample. In the construct analysis carried out in Australia,<sup>2</sup> six items were retained in the factor analysis of FINC-NA and one of them was item 13, which, in this study, showed some compromise in the steps performed.

The final version translated into Brazilian Portuguese was carried out with the pre-test, which assessed the understanding, applicability and time to complete it. At this stage, essential in the cross-cultural adaptation process, as it allows the identification and review of inappropriate terms that may generate doubts during application,<sup>29</sup> there was no reference by participants about any difficulty in answering/completing the instrument. It is likely that the absence of difficulties in understanding the terms is related to the fact that the participants are all nurses and most have experience in family nursing.

The FINC-NA reliability test showed an overall internal consistency of 0.86. This value, despite being considered good,<sup>30</sup> is slightly below that found in a study that revalidated the instrument in Sweden, which, after exploratory factor analysis, obtained a Cronbach's alpha of



0.92.<sup>14</sup> However, the results obtained are similar to coefficients identified in Germany<sup>15</sup> and Spain,<sup>17</sup> which reached Cronbach's  $\alpha$  between 0.68 and 0.86, higher than the result found in Portugal.<sup>16</sup> These three countries performed the exploratory factor analysis by the principal components method.<sup>15-17</sup> The psychometric properties verified in the Dutch version of the instrument used the Generalized Partial Credit Model.<sup>19</sup> It is noteworthy that in none of the countries that validated the FINC-NA was a confirmatory factor analysis performed.

A high Cronbach's alpha in the pre-test already allows positive inferences about the reliability of the instrument's items. If there is covariance between items, i.e., good internal consistency, this same result will be found at any time of the test application and this indicates that, the closer to value 1, the more faithful the assessment.<sup>23</sup>

The internal consistency shown by FINC-NA points to its accuracy in its use in surveys. However, it is necessary to apply it to a more representative sample to assess its psychometric properties, through exploratory and confirmatory factor analysis, which will prove whether or not the instrument is properly validated for Brazilian culture.

As a study limitation, the fact that the pre-test was carried out with a sample selected for convenience and included some nurses who were not yet working in clinical practice with patients and their families stands out. This limitation, however, will be remedied with the assessment of its psychometric properties.

Thus, the possibility of assessing nurses' attitude towards the families of hospitalized patients, through the use of an instrument adapted to Brazilian language and culture, is real, as satisfactory reliability was achieved in the translation process. However, it is still necessary to verify the FICC-NA construct validity and reliability so that the results obtained with its application are more reliable.

## Conclusion

The Brazilian version of FINC-NA positively met the equivalence criteria between the original instrument and the translated one, and its content was validated by experts, which makes its adaptation suitable for the Brazilian context. The application of FINC-NA in the pre-test demonstrated good applicability and understanding of the items (Cronbach's alpha of 0.86), therefore, able to assess Brazilian nurses' attitudes towards family participation in



nursing care. Through this, it is concluded that the FINC-NA is able to be submitted to assessment of its psychometric properties.

## References

1. Neves JL, Schwartz E, Echevarría-Guanilo ME, Zanetti ACG, Heyland D, Spagnolo LML. Adaptação transcultural do Family Satisfaction with care in the Intensive Care Unit para o Brasil. *Ciênc Cuid Saúde*. 2018;17(4):e450669. doi: 10.4025/ciencucuidaude.v17i4.45069
2. Mackie BR, Marshall A, Mitchell M, Ireland MJ. Psychometric testing of the revised "Families' Importance in Nursing Care-Nurses' Attitudes instrument". *J Adv Nurs*. 2018 Feb;74(2):482-90. doi: 10.1111/jan.13442
3. O'Brien K, Robson K, Bracht M, Cruz M, Lui K, Alvaro R, et al. Effectiveness of family integrated care in neonatal intensive care units on infant and parent outcomes: a multicentre, multinational, cluster-randomised controlled trial. *Lancet Child Adolesc Health*. 2018;2(4):245-54. doi: 10.1016/S2352-4642(18)30039-7
4. Yu YT, Hsieh WS, Hsu CH, Lin YJ, Lin CH, Hsieh S, et al. 2017. Family- centered care improved neonatal medical and neurobehavioral outcomes in preterm infants: randomized controlled trial. *Phys Ther*. 2017;97:1158-68. doi: 10.1093/ptj/pzx089
5. Gusdal AK, Josefsson K, Adolfsson ET, Martin L. Family health conversations conducted by telephone in heart failure nursing care: a feasibility study. *SAGE Open Nurs*. 2018;22(4):2377960818803383. doi: 10.1177/2377960818803383
6. Gusdal AK, Josefsson K, Thors-Adolfsson E, Martin L. Registered nurses' perceptions about the situation of family caregivers to patients with heart failure - a focus group interview study. *PLoS ONE*. 2016 Aug;11(8):e0160302. doi: 10.1371/journal.pone.0160302
7. Pusa S, Dorell Å, Erlingsson C, Antonsson H, Brännström M, Sundin K. Nurses' perceptions about a web-based learning intervention concerning supportive family conversations in home health care. *J Clin Nurs*. 2019 Apr;28(7-8):1314-26. doi: 10.1111/jocn.14745
8. Gusdal AK, Josefsson K, Adolfsson ET, Martin L. Nurses' attitudes toward family importance in heart failure care. *Eur J Cardiovasc Nurs*. 2017;16(3):256-66. doi: 10.1177/1474515116687178
9. Østergaard B, Clausen AM, Agerskov H, Brødsgaard A, Dieperink KB, Funderskov FK, et al. Nurses' attitudes regarding the importance of families in nursing care: a cross-sectional study. *J Clin Nurs*. 2020; 29(7-8):1290-1301. doi: 10.1111/jocn.15196
10. Hagedoorn EI, Paans W, Jaarsma T, Keers JC, Schans CP, Luttik MLA. The importance of families in nursing care: attitudes of nurses in the Netherlands. *Scand J Caring Sci*. 2020. doi:10.1111/scs.12939
11. Naef R, Kläusler-Troxler M, Ernst J, Huber S, Dinten-Schmid B, Karen T, et al. Translating family systems care into neonatology practice: a mixed method study of practitioners' attitudes, practice skills and implementation experience. *Int J Nurs Stud*. 2020;102:103448.

doi: 10.1016/j.ijnurstu.2019.103448

12. Broekema S, Luttik MLA, Steggerda GE, Paans W, Roodbol PF. Measuring change in nurses' perceptions about family nursing competency following a 6-day educational intervention. *J Fam Nurs*. 2018;24(4):508-37. doi: 10.1177/1074840718812145

13. Benzein E, Johansson P, Årestedt FK, Berg A, Saveman BI. Families' importance in nursing care nurses' attitudes - an instrument development. *J Fam Nurs*. 2008;14(1):97-117. doi: 10.1177/1074840707312716

14. Saveman BI, Benzein EG, Engström AH, Årestedt FK. Reevaluation of the instrument: families' importance in nursing care-nurses' attitudes. *J Fam Nurs*. 2011;17(3):312-29. doi: 10.1177/1074840711415074

15. Naef R, Schmid-Mohler G, Ernst J. Psychometric evaluation of the German version of the instrument: families' importance in nursing care - nurses' attitudes (FINC-NA). *Scand J Caring Sci*. 2021;35:328-39. doi: 10.1111/scs.12924.

16. Oliveira PCM, Fernandes HIV, Vilar AISP, Figueiredo MHJS, Ferreira MMSRS, Martinho MJCM, et al. Atitudes dos enfermeiros face à família: validação da escala families' importance in nursing care - nurses attitudes. *Rev Esc Enferm USP*. 2011;45(6):1331-7. doi: 10.1590/S0080-62342011000600008

17. Pascual Fernández M, Ignacio Cerro M, Cervantes Estévez L, Jiménez Carrascosa M, Medina Torres M, García Pozo AM. Questionnaire to evaluate the importance of the family in nursing care. Validation of the Spanish version (FINC-NA). *An Sist Sanit Navar*. 2015;38(1):31-9. doi: 10.23938/ASSN.0051

18. Vuorenmaa M, Palonen M, Kaunonen M, Åstedt-Kurki P. Nurses' attitudes towards patient's family in hospital settings and the validity of the FINC-NA instrument measuring nurses' attitudes. *Hoitotiede [Internet]*. 2016 [cited 2019 Aug 08];28(2):83-96. Available from: <https://search.proquest.com/openview/9c3d33e0ecb0c0bb043491afae939fdb/1?pq-origsite=gscholar&cbl=406341>

19. Hagedoorn EI, Paans W, Jaarsma T, Keers JC, Van Der Schans CP, Luttik ML, et al. Translation and psychometric evaluation of the dutch families importance in nursing care: nurses' attitudes scale based on the generalized partial credit model. *J Fam Nurs*. 2018;24(4):538-62. doi: 10.1177/1074840718810551

20. Lino CRM, Brüggemann OM, Souza ML, Barbosa SFF, Santos EKA. The cross-cultural adaptation of research instruments, conducted by nurses in Brazil: an integrative review. *Texto Contexto Enferm*. 2017;26(4):e1730017. doi: 10.1590/0104-07072017001730017

21. Machado RS, Fernandes ADBF, Oliveira ALCB, Soares LS, Gouveia MTO, Silva GRF. Cross-cultural adaptation methods of instruments in the nursing area. *Rev Gaúcha Enferm*. 2018;39:e2017-0164. doi: 10.1590/1983-1447.2018.2017-0164

22. Beaton DE, Bombardier C, Guillemin F, Ferraz MB. Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine (Phila Pa 1976)*. 2000 Dec;25(24):3186-91. doi: 10.1097/00007632-200012150-00014

23. Pasquali L. *Psicometria: teoria dos testes na psicologia e na educação*. Rio de Janeiro: Vozes;

2017.

24. Epstein J, Santo RM, Guillemin F. A review of guidelines for cross-cultural adaptation of questionnaires could not bring out a consensus. *J Clin Epidemiol*. 2015;68(4):435-41. doi: 10.1016/j.jclinepi.2014.11.021
25. Freire MHS, Arreguy-Sena C, Müller PCS. Cross-cultural adaptation and content and semantic validation of the Difficult Intravenous Access Score for pediatric use in Brazil. *Rev Latinoam Enferm*. 2017;25:e29202017. doi: 10.1590/1518-8345.1785.2920
26. Roediger MA, Marucci MFN, Latorre MRDO, Hearst N, Oliveira C, Duarte YAO, et al. Adaptação transcultural para o idioma português do método de triagem nutricional Determine your nutritional health® para idosos domiciliados. *Ciênc Saúde Colet*. 2017;22(2):509-18. doi: 10.1590/1413-81232017222.00542016
27. Andrade LF, Marquez FE, Ferreira GA, Pereira SR, Walsh IAP, Barbosa MH. Adaptação transcultural do instrumento de auto avaliação do funcionamento ocupacional para língua brasileira de sinais. *Texto Contexto Enferm*. 2019;28:e20180160. doi: 10.1590/1980-265x-tce-2018-0160
28. Dalla Nora CR, Zoboli E, Vieira MM. Validation by experts: importance in translation and adaptation of instruments. *Rev Gaúcha Enferm*. 2017;38(3):e64851. doi: 10.1590/1983-1447.2017.03.64851
29. Gutiérrez SO, Avelar AC. Translation and cross-cultural adaptation of health assessment tools. *Actas Dermosifiliogr*. 2018;109(3):202-6. doi: 10.1016/j.ad.2017.09.012
30. Cunha CM, Almeida Neto AP, StacFkleth RS. Principais métodos de avaliação psicométrica da confiabilidade de instrumentos de medida. *Rev Atenção Saúde*. 2016;14(49):98-103. doi: 10.13037/ras.vol14n47.3391

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