

# Translation into Portuguese and cross-cultural adaptation for use in Brazil of the Canadian survey of mobilization of ICU patients

*Tradução e adaptação cultural para a língua portuguesa falada no Brasil da Canadian survey of mobilization of ICU patients*

*Traducción y adaptación cultural al portugués brasileño de Canadian survey of mobilization of ICU patients*

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**ABSTRACT** | This study aimed to translate and culturally adapt the “Canadian survey of mobilization of intensive care unit patients” questionnaire to Brazilian Portuguese. This instrument evaluates intensive care unit (ICU) professionals’ knowledge about early mobilization and its importance, their perceptions about barriers and rehabilitation practices with critically ill patients. The protocol includes the following steps: authorization and assignment of rights of use; translation of the instrument into Portuguese; reconciliation; back-translation to the original language; revision and harmonization of back-translation; approval from the main author of the original questionnaire; revision of the Portuguese version; cognitive debriefing; reconciliation; and preparation of the final version. Due to some conceptual and cultural differences between the two countries, some questions were discussed with the author of the original instrument, who agreed with the suggested alterations. During cognitive debriefing, the 10 selected professionals tested the questionnaire’s clarity, understanding, and acceptability, indicating any difficulties they had regarding its content. Many interviewees reported that the instrument raises important reflections on daily practices and the benefits of early mobilization. The questionnaire entitled “Pesquisa de mobilização de pacientes em unidade de terapia intensiva: conhecimento, perspectivas e práticas

atuais” was translated and culturally adapted to Brazilian Portuguese and can be used to evaluate aspects of early mobilization by professionals who participate in this process in adult and pediatric ICUs. Future studies using this version will be necessary to verify that the questionnaire provides reproducible and valid measurements.

**Keywords** | Intensive Care Units; Patient Care Team; Early Ambulation; Translations; Surveys and Questionnaires.

**RESUMO** | Este estudo teve como objetivo traduzir e adaptar culturalmente o questionário *Canadian survey of mobilization of intensive care unit patients* para a língua portuguesa falada no Brasil. Este instrumento avalia profissionais de unidade de terapia intensiva (UTI) em relação aos conhecimentos sobre a mobilização precoce (MP) e sua importância, as percepções sobre barreiras e as práticas de reabilitação com o paciente crítico. O protocolo incluiu as etapas: autorização e cessão de direitos de uso; tradução do instrumento para a língua portuguesa; reconciliação; retrotradução para a língua original; revisão e harmonização da retrotradução; aprovação da autora principal do questionário original; revisão da versão em português; desdobramento cognitivo; e reconciliação e elaboração da versão final. Devido a algumas diferenças conceituais e culturais entre

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os dois países, algumas dúvidas foram discutidas com a autora principal do instrumento, a qual concordou com as alterações sugeridas. No desdobramento cognitivo, os 10 profissionais selecionados testaram a clareza, compreensão e aceitabilidade do questionário, e demonstraram suas dificuldades quanto ao conteúdo deste. Muitos entrevistados evidenciaram que o instrumento desperta reflexões importantes sobre as práticas diárias e os benefícios com a realização da MP. O questionário intitulado *Pesquisa de mobilização de pacientes em unidade de terapia intensiva: conhecimento, perspectivas e práticas atuais* encontra-se traduzido e adaptado culturalmente para a língua portuguesa falada no Brasil, podendo ser utilizado para avaliar aspectos da MP por profissionais que participam deste processo em UTIs adulto e pediátricas. Estudos futuros utilizando esta versão serão necessários para verificar se o questionário fornece medidas reprodutíveis e válidas.

**Descritores** | Unidades de Terapia Intensiva; Equipe de Assistência ao Paciente; Deambulação Precoce; Traduções; Inquéritos e Questionários.

**RESUMEN** | Este estudio tuvo como objetivo traducir y adaptar culturalmente el cuestionario *Canadian survey of mobilization of intensive care unit patients* al portugués de Brasil. Este instrumento evalúa a los profesionales de la unidad de cuidados intensivos (UCI) en cuanto al conocimiento sobre la movilización temprana (MT) y su importancia, las percepciones sobre las barreras y las prácticas

de rehabilitación con pacientes críticos. El protocolo incluyó las siguientes etapas: autorización y cesión de derechos de uso; traducción del instrumento al portugués brasileño; reconciliación; retrotraducción al idioma original; revisión y armonización de la retrotraducción; aprobación de la autora principal al cuestionario original; revisión de la versión al portugués; despliegue cognitivo; y reconciliación y preparación de la versión final. Debido a algunas diferencias conceptuales y culturales entre los dos países, se discutieron algunas dudas con la autora principal del instrumento, quien estuvo de acuerdo con los cambios sugeridos. En el despliegue cognitivo, los 10 profesionales seleccionados probaron la claridad, la comprensión y la aceptabilidad del cuestionario, y demostraron las dificultades de los contenidos. Numerosos entrevistados manifestaron que el instrumento suscita importantes reflexiones sobre las prácticas cotidianas y beneficios de llevar a cabo la MT. El cuestionario titulado *Investigación en movilización de pacientes en unidades de cuidados intensivos: conocimientos, perspectivas y prácticas actuales* está traducido y adaptado culturalmente al portugués de Brasil, y puede ser utilizado para evaluar aspectos de MT por parte de profesionales que participan en este proceso en UCI de adultos y pediátrica. Se necesitarán estudios futuros que utilicen esta versión para verificar que el cuestionario proporciona la reproducibilidad y la validez de las medidas.

**Palabras clave** | Unidades de Cuidados Intensivos; Grupo de Atención al Paciente; Ambulación Precoz; Traducciones; Encuestas y Cuestionarios.

## INTRODUCTION

Functional loss acquired during intensive care unit (ICU) hospitalization are associated with prolonged immobilization and bed rest, especially in patients requiring mechanical ventilation<sup>1,2</sup>. In this scenario, muscle weakness acquired in the ICU is commonly described as one of the complications critically ill patients face—affecting between 25 to 100% of patients. The effects can persist for up to 5 years, holding a strong relationship with increased morbidity and mortality after hospital discharge<sup>3,4</sup>.

Early mobilization has been demonstrated to be a safe and viable practice, resulting in favorable functional outcomes, such as improvement of muscle strength and functional recovery in the hospital and post-discharge environments<sup>5-7</sup>. However, despite the increase in evidence reporting the long-term benefits of early mobilization, many ICU patients remain immobilized for long periods<sup>8,10</sup>.

Among the main difficulties described in the literature for the non-performance of early mobilization one could cite structural and cultural aspects – such as limited number of professionals, insufficient workload, lack of equipment and training, prioritization, leadership, and lack of knowledge about the risks and benefits of early mobilization by the team<sup>7,11</sup>.

In recent years, some studies have been conducted to understand early mobilization practices and investigate the knowledge of health professionals about this practice in critically ill patients<sup>11-17</sup>. However, only one of the questionnaires developed and used in such evaluations was validated in its original version<sup>14</sup>, and no instruments have been translated and adapted to Portuguese.

Koo et al. developed the *Canadian survey of mobilization of intensive care unit patients: current knowledge, perspectives and practices*, an instrument that aims to evaluate three domains: knowledge, perceptions, and practices of early mobilization by the team involved. The questionnaire

was validated in Canada, presenting good intra-rater reliability and excellent apparent validity for use in adult and pediatric ICU<sup>14</sup>. However, since the instrument was originally developed in English, its use in Brazil requires translation and adaptation to the country's social and cultural context.

Given this context, the importance given by and the knowledge of early mobilization by ICU teams in Brazil must be investigated, identifying barriers and facilitators for the practice through a specific instrument of evaluation. This study aims to translate and culturally adapt the *Canadian survey evaluation instrument of mobilization of intensive care unit patients: current knowledge, perspectives and practices* to Brazilian Portuguese.

## METHODOLOGY

This is a methodological study of translation and cultural adaptation to Brazilian Portuguese of a specific evaluation instrument of ICU professionals in relation to knowledge about early mobilization and its importance; perceptions about challenges to

its realization at institutional, health professional and patient levels; and rehabilitation practices in ICU environments<sup>14</sup>. The original questionnaire was developed by the Canadian Critical Care Trials Group, and consists of a glossary of terms, followed by 29 multiple choice questions.

The study population was intentionally composed of 10 professionals working in the adult ICU of a university hospital. Physicians, nurses, nursing technicians, and physical therapists with over one year of experience in intensive care were included in the study.

The translation and cultural adaptation of the questionnaire were conducted according to the guidelines and principles established by Wild et al.<sup>18</sup> and Guillemin et al.<sup>19</sup>, following the steps: authorization and assignment of rights of use by the main author of the original questionnaire; translation from English into Portuguese of the questionnaire; reconciliation; back translation; revision and harmonization of back-translation; approval of the main author of the original instrument; review of the Portuguese version of the questionnaire by experts; cognitive debriefing; and reconciliation and preparation of the final version (Figure 1).

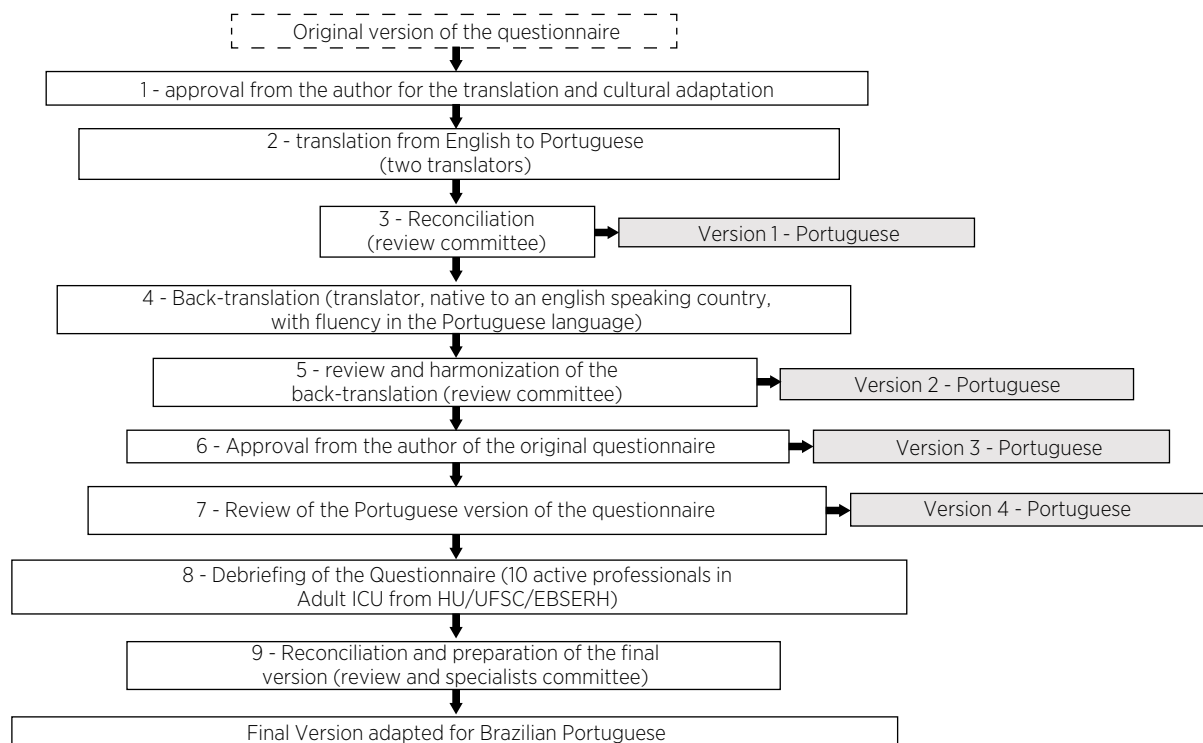


Figure 1. Flowchart of the questionnaire's translation and cultural adaptation process

After the authorization and assignment of rights of use by the main author of the instrument, two Brazilian translators, fluent in English, independently translated the questionnaire. From the two translations, a review committee – composed of two people responsible for conducting the study and the two translators of the original questionnaire – was responsible for making the first Portuguese version. This first Portuguese version was translated into English by a translator native to an English-speaking country, fluent in Portuguese, who did not have access to the original version of the questionnaire in English.

The review committee compared the back-translation with the original English version to identify possible translation errors due to misunderstanding of the instrument, and a second version was made in Portuguese. Subsequently, the back-translation was sent to the main author of the original questionnaire for evaluation. After its approval, the third version was prepared in Portuguese, according to the suggestions and corrections raised by the questionnaire's author. The third Portuguese version was reviewed by a specialist committee composed of a bilingual physical therapist, specialized in intensive care and two Brazilian translators fluent in English, later creating the fourth Portuguese version of the questionnaire.

The cognitive debriefing consisted of testing the understanding, clarity and acceptability of the translated questionnaire on the target population, identifying possible issues and offering solutions to enable its understanding. The questionnaire was applied individually by the main researcher to each participant. The participants were instructed not to pay attention to the accuracy of the answers, but to present their understanding of the questions and statements of the instrument, as well as to report any difficulties. Participants then made a general open comment about the questionnaire, stating their acceptance of the instrument.

In the last stage of the process – reconciliation – the committees and experts met to review and discuss the findings from the cognitive debriefing. Relevant modifications were made; thus, elaborating the final Portuguese version of the questionnaire.

## RESULTS

We interviewed 10 professionals, including four physiotherapists, two physicians, two nurses and two nursing technicians, 70% were female, 35.5 years as the mean age, and

nine had over five years of ICU experience. All professionals worked in an adult ICU with a clinical-surgical profile.

In the translation and back-translation stage of the original questionnaire, some doubts and suggestions for modifications arose, which were later discussed with the main author of the instrument. The author agreed with the suggested changes and, from the analysis of the committee of experts, modifications were made in version 3 in Portuguese, aiming at a greater equivalence of the translated version with the original, and a better understanding and adaptation of the questionnaire for Brazilian culture.

The initial part of the questionnaire presents an introduction with a glossary to facilitate the understanding of some terms by professionals. In this part, the “mobilization” concept defines this therapy only as active and assisted mobility of the patient, not including passive mobilization. However, since passive mobility is also considered a type of mobilization in Brazil, the phrase was changed to include this therapy.

Other modifications were necessary in some questions such as changing one of the examples of equipment used for mobilization in the first part of question 2: “ceiling lifts” to “electric lifts for the transfer of patients,” since the latter is the equipment most commonly found in Brazilian ICUs.

Moreover, some questions of the original instrument address the participation of “respiratory therapist” professional in the care of critically ill patients, however, this profession is not recognized in Brazil, and respiratory therapy is one of the attributions of physical therapists. The term was removed from questions 3, 12, 16; the same criteria was applied to “rehabilitation specialist”, removed from question 26.

“Nurse technician” was inserted in questions 3, 12, 16, 19 and 27 because of their participation in the mobilization process in Brazilian daily practice despite not being included in the original version of the questionnaire due to the different competencies of these professionals in Canada. Because of the inclusion of nurse technician in the questionnaire, we also included them as participants to be interviewed, so that we could know their perceptions and knowledge about early mobilization.

In the stage of cognitive debriefing, some items of the questionnaire generated difficulties in understanding, such as the statement of question 3, which was considered confusing by half of the participants. Table 1 presents the relevant items of changes that were identified in reconciliation (Version 4) and the changed items after this step (Version 5).

Table 1. Changes made after the cognitive debriefing process

Item	Version 4 – Portuguese	Version 5 – Portuguese
2. a)	“Ordens de repouso no leito na admissão da UTI”	“Recomendações de repouso no leito na admissão da UTI”
2. a)	“Ordens médicas necessárias antes da mobilização”	“Recomendações médicas necessárias antes da mobilização”
2. a)	“Percebida como uma intervenção dispendiosa por administradores ou líderes de unidade”	“Percebida como uma intervenção dispendiosa por administradores ou coordenadores de unidade”
2. b)	“Restrições físicas”	“Contenções físicas”
2. b)	“Fragilidade”	“Fragilidade física”
3.	“Os profissionais são médicos intensivistas (MI), fisioterapeutas (FI), enfermeiros (EN), técnicos de enfermagem (TE), e cirurgião primário / parecerista (CP). Qual é / quais são a(s) barreira(s) relacionada(s) aos profissionais mais importante(s) para a mobilização precoce (MP) em sua UTI / UTIP?”	“Os profissionais são médicos intensivistas (MI), fisioterapeutas (FI), enfermeiros (EN), técnicos de enfermagem (TE), e médicos assistentes (MA). Qual é / quais são a(s) barreira(s) mais importante(s) relacionada(s) aos profissionais para a realização da mobilização precoce (MP) em sua UTI / UTIP?”
3. f)	“Falta de organização entre profissionais para facilitar a MP”	“Falta de planejamento entre profissionais para facilitar a MP”
3. j)	“Preocupações de segurança sobre a MP”	“Preocupações referentes à segurança para realizar a MP”
5.	“Ortostatismo”	“Ficar em pé”
5. c)	“Lesão medular cervical”	“Lesão medular cervical estabilizada”
5. d)	“Lesão medular toracolombar”	“Lesão medular toracolombar estabilizada”
5. m)	“Fragilidade”	“Fragilidade física”
5. r)	“Acesso para diálise inserido no sítio subclávio (durante períodos interdialise)”	“Acesso para diálise inserido no sítio jugular (durante períodos interdialise)”
6.	“Ortostatismo”	“Ficar em pé”
6. d)	“Uma dose média de infusão de vasopressor ou inotrópico”	“Uma dose moderada de infusão de vasopressor ou inotrópico”
20.	“Dias úteis à noite (depois das 17:00, segunda a sexta-feira)”	“Dias úteis à noite (segunda a sexta-feira)”

UTI: unidade de terapia intensiva; MP: mobilização precoce; UTIP: unidade de terapia intensiva pediátrica.

## DISCUSSION

In this study, the translation and cultural adaptation, into Brazilian Portuguese, of the “Canadian survey of mobilization of intensive care unit patients” was carried out using methodologies based on well-established guidelines from the literature<sup>18-19</sup>. The process of translation and cultural adaptation is complex and well detailed; all recommendations must be followed so conceptual equivalence between the versions is achieved—original and the new translated version<sup>20</sup>.

The original questionnaire presents good intra-rater reliability and excellent apparent validity for use in adult and pediatric ICUs<sup>14</sup>, being a precise instrument with well-formulated questions that cover several aspects of early mobilization, such as challenges and facilitators, professionals’ theoretical and practical knowledge, as well as investigating the importance attributed to this practice by the team that participates in this process. Considering that this is the first instrument translated and adapted for such evaluations in Brazil, its use will allow these questions to be evaluated in different regions of the country.

According to previous studies using the original version of the questionnaire in Canada, Anekwe et al.<sup>12</sup>

showed that half of the interviewees did not consider early mobilization as a priority, had limited knowledge about the benefits of this practice, and a high level of disagreement about the maximum permitted level of activity in critically ill patients. In another study<sup>14</sup>, 68.8% of professionals considered early mobilization crucial for the care of critically ill patients; however, 59.8% of the participants revealed that they felt inadequately trained to mobilize patients on mechanical ventilation.

Challenges were reported for the performance of early mobilization at institutional, health professional, and patients levels, including: lack of protocols and guidelines for early mobilization, insufficient equipment, limited number of professionals, safety concerns to perform mobilization, clinical instability, and excessive sedation<sup>12,14</sup>. The authors concluded that these perceived barriers are largely influenced by the training and knowledge of professionals<sup>12</sup>.

In other international studies, the lack of knowledge about the risks and benefits of mobilization is also frequently reported as a barrier for early mobilization<sup>7,17</sup>, demonstrating the need for culture changes, pursuit of evidence, knowledge and multiprofessional interactions. All members of the multiprofessional ICU team are essential for early mobilization to be performed, and

professionals can – when committed to these efforts together – provide better care to patients<sup>12,21</sup>.

According to the participants' final comments, we noticed that the research led some professionals to reflect on the importance of performing early mobilization in daily clinical practice, as well as on collaboration and incentive to perform it. Regarding the extensive content of the questionnaire, some professionals did not perceive it as negative, since the instrument covers several aspects of early mobilization.

Considering that early mobilization reduces damage caused by hospitalization and improves the functional recovery of the patient in the long term, the use of this instrument to evaluate physical therapists, nurses, physicians and nursing technicians on aspects of early mobilization will allow for a better understanding about the practice of early mobilization in Brazilian ICUs. Future studies using this Portuguese version of the questionnaire will be necessary to verify whether the questionnaire provides reproducible and valid measures to be used in clinical practice and research.

## CONCLUSION

The questionnaire entitled *Pesquisa de mobilização de pacientes em unidade de terapia intensiva: conhecimento, perspectivas e práticas atuais* has been translated and culturally adapted to the Brazilian Portuguese language. Due to the changes made in the translation and cultural adaptation, future studies using this version of the questionnaire will be relevant to confirm that the instrument provides reproducible and valid measures.

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