

Translation and cross-cultural adaptation of the Self-Efficacy for Exercise scale for post-stroke individuals

Tradução e adaptação transcultural da escala Self-Efficacy for Exercise para indivíduos pós-acidente vascular cerebral

Traducción y adaptación intercultural de la escala de self-efficacy for exercise para individuos después de un accidente cerebrovascular

Maria Tereza Mota Alvarenga¹, Patrick Avelino², Ruani Tenório³, Ana Luiza de Castro⁴, Izadora Santos⁵, Kênia de Menezes⁶, Aline Alvim Scianni⁷

ABSTRACT | After a stroke, several factors can influence the practice of physical activity, one of which may be self-efficacy. Self-efficacy is defined as confidence in performing a specific behavior. The Self-Efficacy for Exercise scale was developed to assess self-efficacy for performing physical exercise. This scale is available in English, Chinese, and Malay. For its use in the Brazilian population, its translation and cross-cultural adaptation are necessary. This study aimed to translate into and cross-culturally adapt the English version of the Self-Efficacy for Exercise scale for Brazilian Portuguese. This is a methodological study that followed the recommendations of the STROBE and COSMIN practical guides. The translation and cross-cultural adaptation of the scale was carried out in six stages: (1) translation, (2) synthesis, (3) back translation, (4) expert committee review, (5) pre-test, and (6) approval by the authors of the scale. This study outcomes show that the translation and cross-cultural adaptation of this scale

had satisfactory results from a conceptual, semantic, and cultural point of view, thus enabling its use in the Brazilian population. The Self-Efficacy for Exercise - Brasil is an adequate scale to assess confidence in performing physical exercise and can be a new instrument to be incorporated in the assessment of post-stroke individuals in the Brazilian population.

Keywords | Stroke; Self-efficacy; Exercise; Translating.

RESUMO | Após um acidente vascular cerebral (AVC), existem vários fatores que podem influenciar a prática do exercício físico, um deles pode ser a autoeficácia. A autoeficácia é definida como a confiança em realizar algum comportamento específico. A *Self-Efficacy for Exercise* foi desenvolvida a fim de avaliar a autoeficácia para realizar exercício físico. Essa escala encontra-se disponível nas línguas inglesa, chinesa e malaia. Para a utilização desta na população brasileira, é necessária sua tradução e

Study conducted at the Neurolab Research Laboratory of the Graduate Program in Rehabilitation Sciences of the Universidade Federal de Minas Gerais (UFMG) – Belo Horizonte (MG), Brazil.

¹ Universidade Federal de Minas Gerais (UFMG) – Belo Horizonte (MG), Brazil. Email: mtmalvarenga@outlook.com. Orcid: 0000-0002-5536-8035

² Universidade Federal de Minas Gerais (UFMG) – Belo Horizonte (MG), Brazil. Email: patrickpk4@yahoo.com.br. Orcid: 0000-0002-7248-4767

³ Universidade Federal de Minas Gerais (UFMG) – Belo Horizonte (MG), Brazil. Email: ruanitenorio@gmail.com. Orcid: 0000-0002-9258-866X

⁴ Universidade Federal de Minas Gerais (UFMG) – Belo Horizonte (MG), Brazil. Email: ninhaluiza123@gmail.com. Orcid: 000-0002-7208-7278

⁵ Universidade Federal de Minas Gerais (UFMG) – Belo Horizonte (MG), Brazil. Email: izadoracaetano12@gmail.com. Orcid: 0000-0003-4831-698X

⁶ Universidade Federal de Minas Gerais (UFMG) – Belo Horizonte (MG), Brazil. Email: keniakiefer@yahoo.com.br. Orcid: 0000-0002-9906-9555

⁷ Universidade Federal de Minas Gerais (UFMG) – Belo Horizonte (MG), Brazil. Email: ascianni@task.com.br. Orcid: 0000-0002-5968-2195

Corresponding address: Aline Alvim Scianni – Av. Presidente Antônio Carlos, 6627, Pampulha – Belo Horizonte (MG) – Zip Code 31270-901 – E-mail: ascianni@task.com.br – Financing source: Brazilian Government Funding Agencies (CAPES - code 001, CNPq: 304434/2014-0, and FAPEMIG (APQ-00061 - 22) - Conflict of interest: nothing to declare - Presentation: May 21st, 2023 - Accepted for publication: March 31st, 2025 - Approved by the Research Ethics Committee of the Universidade Federal de Minas Gerais [Protocol no. 59333822.0.0000.5149]. Responsible editor: Sônia LP Pacheco de Toledo

adaptação transcultural, assim o objetivo deste artigo é realizar a tradução e adaptação transcultural da versão em inglês da escala *Self-Efficacy for Exercise* para o português-Brasil. This is a cross-cultural adaptation study that followed the recommendations of the STROBE and COSMIN practical guides. O processo de tradução e adaptação transcultural da escala foi realizado em seis estágios: (1) tradução; (2) síntese; (3) retrotradução; (4) revisão por comitê de especialistas; (5) pré-teste; e (6) aprovação pelos autores que desenvolveram o instrumento. Os resultados deste estudo demonstraram que o processo de tradução e adaptação transcultural da escala apresentaram resultados satisfatórios do ponto de vista conceitual, semântico e cultural, viabilizando assim seu uso na sociedade brasileira. Desse modo, a *Self-Efficacy for Exercise* é uma escala adequada para avaliar a confiança em realizar exercício físico e pode ser um novo instrumento a ser incorporado na avaliação de indivíduos pós-AVC da população brasileira.

Descritores | Acidente Vascular Cerebral; Autoeficácia; Exercício Físico; Tradução.

RESUMEN | Entre los diversos factores que pueden influir en la práctica de ejercicio físico tras un accidente cerebrovascular (ACV), se encuentra la autoeficacia. La autoeficacia se define como la confianza en la realización de algún comportamiento específico. La

self-efficacy for exercise para el ejercicio se desarrolló con el fin de evaluar la autoeficacia para realizar ejercicio físico. Esta escala está disponible en inglés, chino y malayo. Para su uso en la población brasileña, es necesaria una traducción y adaptación transcultural, por lo que el objetivo de este artículo fue realizar una traducción y adaptación intercultural de la versión inglesa de la escala de *self-efficacy for exercise* al portugués brasileño. Se trata de un estudio de adaptación transcultural que siguió las recomendaciones de las guías prácticas STROBE y COSMIN. El proceso de traducción y adaptación intercultural de la escala se llevó a cabo en seis etapas: (1) traducción; (2) síntesis; (3) retrotraducción; (4) revisión por un comité de expertos; (5) prueba previa; y (6) aprobación por parte de los autores que desarrollaron el instrumento. Los resultados de este estudio revelaron que el proceso de traducción y adaptación transcultural de la escala presentó resultados satisfactorios desde un punto de vista conceptual, semántico y cultural, lo cual permite su uso en la sociedad brasileña. Por lo tanto, la *self-efficacy for exercise* es una escala adecuada para evaluar la confianza en la realización de ejercicio físico y puede ser un nuevo instrumento que incorporar en la evaluación de individuos posaccidente cerebrovascular en la población brasileña.

Palabras clave | Accidente Cerebrovascular; Autoeficacia; Ejercicio Físico; Traducción.

INTRODUCTION

According to the World Health Organization (WHO), stroke was the second leading cause of death in the world in 2019¹. In recent years in Brazil, more than one million cases of stroke have been registered in the public health system². Several risk factors are associated with the occurrence of a stroke, such as: hypertension, smoking, diabetes mellitus, obesity, sedentary lifestyle, genetic factors, among others³. About 90% of stroke risk factors are modifiable³.

Sedentary lifestyle is a risk factor that can be changed after a stroke⁴. Moreover, studies indicate that the practice of physical exercise is associated with a decrease in the risk of developing cardiovascular diseases, such as hypertension, and improves physical independence after stroke^{4,5}. There are several factors that influence the practice of physical exercise after a brain injury, and one of them is self-efficacy⁶.

Bandura⁷ defines self-efficacy as the confidence in performing a specific behavior. According to the

author, the greater the perception of an individual's self-efficacy, the greater the effort and persistence in a certain behavior⁷. A systematic review showed that self-efficacy is associated with post-stroke physical exercise⁶. Recently, a study pointed out that, among several factors, self-efficacy was a predictor for adherence to physical exercise after a stroke⁸. Finally, a systematic review that aimed to identify personal and social factors related to post-stroke physical exercise showed that self-efficacy is an important component of this skill⁹. Therefore, assessing self-efficacy is relevant for promoting physical exercise after a stroke.

Self-Efficacy for Exercise is a scale developed to assess self-efficacy when performing physical exercise¹⁰. It is composed of nine items, in which respondents must answer how much confidence they have to perform physical exercises in the face of different barriers. The score ranges from 0 to 10, with 0 standing for no confidence and 10, total confidence. The higher the score, the higher the self-efficacy for physical exercise¹⁰. Although it is a quick and easy scale to be applied, as well as important

in the evaluation of post-stroke individuals, it is only available in English¹⁰, Chinese¹¹, and Malay¹². For the use of this scale in the Brazilian population, its translation and cross-cultural adaptation is necessary. Thus, this study aimed to translate into and cross-culturally adapt the English version of the Self-Efficacy for Exercise scale for Brazilian Portuguese.

METHODOLOGY

This process of translation and cross-cultural adaptation of the Self-Efficacy for Exercise scale. Was authorized by authors of the original scale. This is a cross-cultural adaptation study that followed the recommendations of the STROBE and COSMIN practical guides.

Study site and sampling

The study was conducted at the Neurofunctional Physical Therapy Laboratory (Neurolab) of the School of Physical Education, Physical Therapy, and Occupational Therapy of the Federal University of Minas Gerais. The translation and cross-cultural adaptation process took place between August and November 2023. The inclusion criteria were: (1) presenting a clinical diagnosis of stroke in the subacute phase (3–6 months after injury); (2) Age equal to or greater than 18 years; (3) absence of significant cognitive alterations identified by the Mini Mental State Examination¹³. The exclusion criteria were: (1) having other neurological or orthopedic impairments unrelated to stroke; (2) having impaired comprehension (assessed by simple motor commands)¹⁴.

Measuring instrument

The Self-Efficacy for Exercise scale was developed to assess confidence when performing physical exercise before various barriers¹⁰. Composed of nine items, respondents must answer the level of confidence they have to perform physical exercises, in the face of various obstacles, such as unfavorable weather conditions, personal factors, performing physical exercise alone, feeling pain during practice, among others. The score ranges from 0 to 10, with 0 standing for no confidence and 10, total confidence. To calculate the final score, one must add up the scores obtained on each item and then divide the total amount by 9. The minimum score is 0 and the maximum

is 10, and the higher the score, the greater the confidence in performing physical exercise before various obstacles¹⁰.

Procedures

The process of translation and cross-cultural adaptation of the scale was produced according to guidelines proposed by Beaton et al., being developed in six stages: (1) translation; (2) synthesis; (3) back translation; (4) expert committee review; (5) pre-test; and (6) approval by the authors who developed the scale^{15,16}.

The first stage, *translation of the instrument*, was performed by two Brazilian natives who understand and speak English from a conceptual, semantic, and cultural point of view. The first translator had no knowledge in the area of neurofunctional rehabilitation and was responsible for generating the first translated version (T1). The second translator had knowledge in the area of neurofunctional rehabilitation and was responsible for generating the second translated version (T2). The whole process of translating the instrument was done independently. At the end of the first stage, two versions translated into Brazilian Portuguese were generated (T1 and T2).

The second stage consisted of *instrument synthesis*. At this stage, the authors of this study, all with knowledge in the area of neurofunctional rehabilitation, performed a synthesis of the two translated versions (T1 and T2). At the end of the second stage, the T12 version was generated.

The third stage, *instrument back translation*, was performed by back-translators who had English as their mother tongue and understood and spoke Brazilian Portuguese from a conceptual, semantic, and cultural point of view. None of the back translators involved in the back translation process had knowledge of the original scale in English, nor in the area of neurofunctional rehabilitation. The whole process of back translating the instrument was done independently. At the end of this stage, two versions back translated into English were generated (BT1 and BT2).

At the fourth stage, *expert committee review*, seven specialists in the field of neurological rehabilitation received all versions of the scale, T1, T2, T12, BT1, BT2, and the original scale. This committee aimed to analyze the clarity, pertinence, and adequacy of the scale items in the final translated version. At the end of this stage, the pre-test version was generated.

The fifth stage, *pre-test*, was done with 45 post-stroke subjects in the subacute phase. These individuals were

selected for convenience in the city of Belo Horizonte and metropolitan region, following the previously described inclusion criteria.

To perform this step, the individuals answered whether or not they understood the items on the scale. The answer was dichotomized into understand=0 and do not understand=1¹⁷. In order for a scale to be culturally accepted, with a good understanding, at least 80% of participants must answer that they understood the items¹⁸. Before the process, the volunteers were asked to sign the informed consent form and were evaluated for eligibility criteria for inclusion in the study. The final version translated into Brazilian Portuguese was named Self-Efficacy for Exercise - Brasil (Appendix 1).

Sample calculation

Following the recommendations of Beaton et al.¹⁵ to carry out the fifth stage (pre-test), at least 30-40 subjects are required.

Statistical analysis

Descriptive statistics including measures of frequency, central tendency, and dispersion were used to analyze personal, sociodemographic, and clinical data. For the analysis of understanding of each item of the scale in the fifth stage (pre-test), the frequency and percentage were calculated. All statistical analyses were performed using the statistical program SPSS version 19.0 for Windows.

RESULTS

Translation, synthesis, and back translation

In versions T1, T2, T12, BT1, and BT2, of the 10 sentences present in the scale, five sentences (50%) presented minor changes. In the BT1 version, in the sentence “How confident are you right now that you could exercise three times per week for 20 minutes if,” the word “right” was omitted. In the sentence of item 2, “You were bored by the program or activity,” the word “feeling” was added before the word “bored.” In the BT2 version, in the sentence of item 2, “You were bored by the program or activity,” the word “by” was modified to “with.” In the sentence of item 3, “You felt pain when exercising,” the word “when” was changed to “while”. In the sentence of item 4, “You had to exercise alone,” the word “alone” was changed to the expression “by yourself.” In the sentence of item 6, “You are too busy with another activity,” the word “too” was adjusted to “very.”

Expert committee review and pre-test

In the preparation of the Brazilian Portuguese pre-final version by the expert committee, in item 1 “You were bored with the program or activity,” it was decided to add the article “the” before the noun “activity.” In item 3, “You felt pain when exercising,” it was decided to replace the word “when” for “while.” In item 5, “You did not enjoy it,” it was decided to add the expression “the activity” after the word “enjoy.” Table 1 shows the original version of the scale and the pre-test version.

Table 1. Items of the Self-Efficacy for Exercise scale paired according to their respective descriptions in English and Portuguese

How confident are you right now that you could exercise three times per week for 20 minutes if:	Quão confiante você está agora de que poderia se exercitar três vezes por semana, durante 20 minutos, se:
1. The weather was bothering you	1. O clima estivesse te incomodando
2. You were bored by the program or activity	2. Você estivesse entediado com o programa ou a atividade
3. You felt pain when exercising	3. Você sentisse dor enquanto estivesse se exercitando
4. You had to exercise alone	4. Você tivesse que se exercitar sozinho
5. You did not enjoy it	5. Você não gostasse da atividade
6. You were too busy with other activities	6. Você estivesse muito ocupado com outra atividade
7. You felt tired	7. Você se sentisse cansado
8. You felt stressed	8. Você se sentisse estressado
9. You felt depressed	9. Você se sentisse deprimido

To perform the fifth stage, pre-test, the pre-final version of the scale was applied to 45 post-stroke individuals, of whom 42% were female and with a mean age of 64 years (SD=12). The mean post-injury time was 4 months (SD=0.8), and 76% had ischemic stroke. The mean score on the mini mental state examination was 24 points (SD=3) and the mean schooling time was 6 years (SD=4). All detailed data are shown in Table 2.

Table 2. Participants' characteristics

Characteristic	(n=45)
Sex, n female (%)	19 (42)
Age (years), mean (SD), [min-max]	64 (12) [39-86]
Schooling time (years), mean (SD), [min-max]	6 (4) [0-16]
Type of stroke, ischemic n (%)	34 (76)
Post-injury time (months), mean (SD), [min-max]	4 (0.8), [3-5]
MMSE score, mean (SD), [min-max]	24 (3) [16-30]

SD: standard deviation; Min: minimum; Max: maximum; MMSE: mini mental state examination.

In the sentence “How confident are you right now that you could exercise three times per week for 20 minutes if,” all subjects (100%) answered that they understood the sentence. In item 1, two individuals (4.4%) answered that they did not understand the sentence. According to them, what made it difficult to understand was the expression “if the weather was bothering you”. In item 2, eight individuals (18%) answered that they did not understand the sentence, because they did not know the meaning of the word “bored”. In the remaining items, all individuals (100%) answered that they understood the sentences (Table 3).

In the sixth stage, all versions of the instrument used in the translation and cross-cultural adaptation process were sent to the authors who developed the scale. The authors approved the complete process and concluded that the translation was carried out appropriately. The final version of the scale can be found in the supplementary material.

Table 3. Understanding of the pre-final version of the Self-Efficacy for Exercise – Brasil scale by post-stroke individuals.

Items	Individuals who understood the sentence, n (%)
How confident are you right now that you could exercise three times per week for 20 minutes if:	45 (100)
1. The weather was bothering you	43 (96)
2. You were bored by the program or activity	37 (82)
3. You felt pain when exercising	45 (100)
4. You had to exercise alone	45 (100)
5. You did not enjoy it	45 (100)
6. You were too busy with other activities	45 (100)
7. You felt tired	45 (100)
8. You felt stressed	45 (100)
9. You felt depressed	45 (100)

DISCUSSION

This study aimed to carry out the translation and cross-cultural adaptation of the Self-Efficacy for Exercise scale to Brazilian Portuguese. The entire process followed international recommendations proposed by the literature and was developed in six stages: (1) translation; (2) synthesis; (3) back translation; (4) expert committee review; (5) pre-test; and (6) approval by the authors who developed the scale^{15,16}. The final scale was named Self-Efficacy for Exercise – Brasil and showed an excellent level of understanding (degree of agreement of items greater than 80%) among post-stroke individuals.

In the first three stages, five sentences (50%) remained unchanged, and five sentences (50%) had minor changes. Some of the replacements carried out were for words of the same part of speech and synonyms. This fact demonstrates adequate semantic equivalence between the English and Brazilian Portuguese versions of the scale. At the fourth stage, three changes were made by the expert committee for the preparation of the pre-final version. None of these changes caused semantic alteration in the original meaning of the sentences. In the fifth stage, pre-test, it is recommended that the final instrument should be evaluated by 30 to 40 individuals¹⁹. In this study, Self-Efficacy for Exercise – Brasil was applied in 45 post-stroke subjects. At

this stage, two items were not fully understood. In item 1, two individuals (4.4%) did not understand the expression “if the weather was bothering you.” In the translation of item 1, “the weather was bothering,” the verb “bother” was translated as “*incomodar*.” However, the use of this verb in Brazilian Portuguese to refer to weather is unusual. The verb “bother” in English has three different meanings (to strive, to worry, and to annoy)²⁰. Among the three meanings of this verb, the translation “*incomodar*” was the one that best suited the context of the sentence. In item 2, eight individuals (18%) did not understand the word “bored”. According to the participants, this word was not part of their social context. The age group of these individuals was 72 years (SD=3). Nevertheless, after explanations about the meaning of the sentence, the participants suggested adding the adjective “uninterested” after the word bored. For a scale to be accepted within the cross-cultural adaptation process, the items must have a degree of agreement greater than 80%¹⁸. None of the items mentioned above had a degree of agreement lower than 80%, thus the scale should be considered cross-culturally accepted.

Self-Efficacy for Exercise - Brasil is an instrument of easy access, with free and easy application, which makes its use accessible to the clinical environment¹⁰. The assessment of self-efficacy for physical exercise in individuals after a stroke is an essential element in rehabilitation programs that aim to promote physical exercise in this population⁸. The results of this study show that the process of translation and cross-cultural adaptation of the scale presented satisfactory results from a conceptual, semantic, and cultural point of view, thus enabling its use in the Brazilian population. Moreover, the use of standardized procedures with criteria that are internationally recognized makes this process reliable.

This study has some limitations. Our sample was selected by a public health service in a metropolitan region of Brazil. The proposed translation and cross-cultural adaptation methodology guarantees only the face and content validities of the adapted version. Thus, other measurement properties, such as construct validity and reliability, must be investigated in future studies, in addition to responsiveness, since this is an evaluative instrument that aims to monitor the evolution of the individual.

CONCLUSION

The process of translation and cross-cultural adaptation of the Self-Efficacy for Exercise - Brasil scale presented

satisfactory results from the conceptual, semantic, and cultural point of view. Therefore, Self-Efficacy for Exercise - Brasil is an appropriate scale to assess confidence in performing physical exercise and may be a new instrument to be incorporated into the assessment of post-stroke individuals in the Brazilian population.

ACKNOWLEDGMENTS

Funding institutions CAPES, CNPq, and FAPEMIG.

REFERENCES

1. Pan American Health Organization. Leading causes of death, and disability. Washington, DC: Pan American Health Organization; 2019 [cited 2025 Jun 17]. Available from: <https://www.paho.org/en/enlace/leading-causes-death-and-disability>
2. Dantas LF, Marchesi JF, Peres IT, Hamacher S, Bozza FA, et al. Public hospitalizations for stroke in Brazil from 2009 to 2016. *PLoS One*. 2019;14(3):1-10. doi: 10.1371/journal.pone.0213837
3. Hankey GJ. Population impact of potentially modifiable risk factors for stroke. *Stroke*. 2020;51(3):719-28. doi: 10.1161/STROKEAHA.119.024154
4. Gordon NF, Gulanick M, Costa F, Fletcher G, Franklin BA, et al. Physical Activity and Exercise Recommendations for Stroke Survivors: an American Heart Association scientific statement from the Council on Clinical Cardiology, Subcommittee on Exercise, Cardiac Rehabilitation, and Prevention; the Council on Cardiovascular Nursing; the Council on Nutrition, Physical Activity, and Metabolism; and the Stroke Council. *Circulation*. 2004;109(16):2031-41. doi: 10.1161/01.CIR.0000126280.65777.A4
5. Billinger SA, Arena R, Bernhardt J, Eng JJ, Franklin BA, et al. Physical activity and exercise recommendations for stroke survivors: a statement for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke*. 2014;45(8):2532-53. doi: 10.1161/STR.0000000000000022
6. Thilarajah S, Mentiplay BF, Bower KJ, Tan D, Pua YH, et al. Factors associated with post-stroke physical activity: a systematic review and meta-analysis. *Arch Phys Med Rehabil*. 2018;99(9):1876-89. doi: 10.1016/j.apmr.2017.09.117
7. Bandura A. *Social Foundations of Thought and Action: A Social Cognitive Theory*. Prentice-Hall; 1986.
8. Caetano LCG, Pacheco BD, Samora GA, Teixeira-Salmela LF, Scianni AA. Self-Efficacy to engage in physical exercise and walking ability best predicted exercise adherence after stroke. *Stroke Res Treat*. 2020;2020:2957623. doi: 10.1155/2020/2957623
9. Espenberger KR, Fini NA, Peiris CL. Personal and social factors that influence physical activity levels in community-dwelling stroke survivors: a systematic review of qualitative literature. *Clin Rehabil*. 2021;35(7):1044-55. doi: 10.1177/0269215521993690

10. Resnick B, Jenkins LS. Testing the Reliability and validity of the self-efficacy for exercise scale. *Nurs Res.* 2000;49(3):154-9. doi: 10.1097/00006199-200005000-00007
11. Lee LL, Perng SL, Ho CC, Hsu HM, Lau SC, et al. A preliminary reliability and validity study of the Chinese version of the self-efficacy for exercise scale for older adults. *Int J Nurs Stud.* 2009;46(2):230-8. doi: 10.1016/j.ijnurstu.2008.09.003
12. Sabo A, Cheng Y, Kuan G. Psychometric properties of the Malay version of the self-efficacy for exercise scale. *PLoS One.* 2019;14(5):e0215698. doi: 10.1371/journal.pone.0215698
13. Bertolucci PHF, Brucki SMD, Campacci SR, Juliano Y. O mini-exame do estado mental em uma população geral impacto da escolaridade. *Arq Neuropsiquiatr.* 1994;52(1):1-7. doi: 10.1590/S0004-282X1994000100001
14. Teixeira-Salmela LF, Devaraj R, Olney SJ. Validation of the human activity profile in stroke: a comparison of observed, proxy and self-reported scores. *Disabil Rehabil.* 2007;29(19):1518-24. doi: 10.1080/09638280601055733
15. 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;25(24):3186-91. doi: 10.1097/00007632-200012150-00014
16. Beaton D, Bombardier C, Guillemin F, Ferraz MB. Recommendations for the cross-cultural adaptation of the DASH & QuickDASH outcome measures. Ontario: Institute for Work & Health; 2007.
17. Guillemin F, Bombardier C. Cross-cultural adaptation of health-related quality of life measures: literature review and proposed guidelines. *J Clin Epidemiol.* 1993;46(12):1417-32. doi: 10.1016/0895-4356(93)90142-n
18. Nusbaum L, Natour J, Ferraz MB, Goldenberg J. Translation, adaptation and validation of the Roland-Morris questionnaire - Brazil Roland-Morris. *Braz J Med Biol Res.* 2001;34(2):203-10. doi: 10.1590/S0100-879X2001000200007
19. Wild D, Grove A, Martin M, Eremenco S, McElroy S, et al. Principles of good practice for the translation and cultural adaptation process for patient-reported outcomes (PRO) measures: report of the ISPOR task force for translation and cultural adaptation. *Value Health.* 2005;8(2):94-104. doi: 10.1111/j.1524-4733.2005.04054.x
20. Cambridge Dictionary Online. Available from: <http://dictionary.cambridge.org/>
21. Avelino PR, Menezes KKP, Nascimento LR, Faria-Fortini I, Faria CDC, et al. Adaptação transcultural da Modified Gait Efficacy Scale para indivíduos pós-acidente vascular encefálico. *Rev Ter Ocup Univ São Paulo.* 2018;29(3):230-6. doi: 10.11606/issn.2238-6149.v29i3p230-236
22. Makhoul MP, Pinto EB, Mazzini NA, Winstein C, Torriani-Pasin C. Translation and validation of the stroke self-efficacy questionnaire to a Portuguese version in stroke survivors. *Top Stroke Rehabil.* 2020;27(6):462-72. doi: 10.1080/10749357.2020.1713555



SELF-EFFICACY FOR EXERCISE - BRASIL

How confident are you right now that you could exercise three times a week, for 20 minutes, if:

	Nada Confiante					Muito Confiante					
1. The weather were bothering you	0	1	2	3	4	5	6	7	8	9	10
2. You were bored (or uninterested) with the program or activity	0	1	2	3	4	5	6	7	8	9	10
3. You felt pain while exercising	0	1	2	3	4	5	6	7	8	9	10
4. You had to exercise alone	0	1	2	3	4	5	6	7	8	9	10
5. You didn't like the activity	0	1	2	3	4	5	6	7	8	9	10
6. You were very busy with another activity	0	1	2	3	4	5	6	7	8	9	10
7. You felt tired	0	1	2	3	4	5	6	7	8	9	10
8. You felt stressed	0	1	2	3	4	5	6	7	8	9	10
9. You felt depressed	0	1	2	3	4	5	6	7	8	9	10