

TRANSLATION AND CULTURAL ADAPTATION OF THE HARRIS HIP SCORE INTO PORTUGUESE

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ABSTRACT

Objective: The Harris Hip Score is a specific evaluation tool, originally developed to assess the results of hip arthroplasty. The objective of this study was to translate and cross-culturally adapt the Harris Hip Score for the Portuguese language. **Method:** The method of translating and culturally adapting the Harris Hip Score involved four steps: 1 - initial translation, 2 - back-translation, 3 - evaluation of the pre-final versions with the development of a consensus version, 4 - commented pre-test with development of the final version. **Results:** The consensus version was applied to thirty patients with hip disorders. Some

difficulties were identified in understanding some expressions, which were replaced by more commonly-used expressions. When the questionnaire was re-applied, it was understood by 100% of the patients, in relation to the semantic, idiomatic and conceptual meanings. **Conclusion:** The Brazilian version of the Harris Hip Score provides another important tool for assessing quality of life of patients with hip disorders. A further study is currently underway to evaluate the reliability and validity of the culturally adapted version.

Keywords: Hip arthroplasty. Quality of life. Translation (product).

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INTRODUCTION

Starting in the 1960's, total hip arthroplasty (THA) has been a revolutionary treatment for elderly patients with osteoarthritis, exhibiting good long-term results, and is today among the orthopedic surgeries of greatest success. Younger patients submitted to THA manage to regain quality of life including activities of considerable physical demand.¹ Around 800,000 THA's are performed worldwide on an annual basis, and it is estimated that this number will increase in the future.² It is a surgical procedure widely used for the treatment of ailments of the coxofemoral joint (hip joint), whether degenerative, inflammatory or traumatic.³

In the last few years changes have occurred in the outcomes used in the analysis of the effectiveness of clinical or surgical treatments in orthopedics. Outcomes such as quality of life related to health, functional capacity, pain and satisfaction scales have been emphasized as they enable the analysis of the state of health and manifestations of disease in individuals' lives. Consequently instruments, questionnaires and scales that address this type of variable were developed and published. These can be classified as: generic and specific. The generic ones quantify the patient's of his or her general state of health, while the specific ones target specific areas

of the body and can measure function with greater responsiveness than a scale that assesses the state of health as a whole.⁴

Among the clinical scores developed to evaluate hip ailments, one that merits special emphasis is the Harris Hip Score, a scale recognized and used worldwide.²⁻⁷

The Harris Hip Score is a specific evaluation tool, originally developed in 1969 to assess THA results, and widely used as a result comparison method. It was compared with the Larson and Shepard system, and reproducibility and objectivity were found.^{5,7} It presents a scale with the maximum of 100 points, including evaluation of pain, function, deformity and motion. Pain and function have the highest weight (44 and 47 points). Range of motion and deformity are of primary importance, receiving 5 and 4 points respectively. Function was divided up into daily life activities (14 points) and gait (33 points). A total score below 70 points is considered a poor result, 70 to 80 reasonable, 80 to 90 good and 90 to 100 excellent.^{5,7}

Studies are available on the responsiveness of the Harris Hip Score in the evaluation of results after hip arthroplasty. The results show high responsiveness in the rates for the Harris Hip Score when compared with generic scales such as the Short Form-36 (SF36).⁸⁻¹²

All the authors declare that there is no potential conflict of interest referring to this article.

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Most questionnaires used in orthopedics were developed in the English language. When there is an assessment protocol described and validated in another language, it is necessary to standardize the cross-cultural equivalence methodology in the language to be used for this protocol to be employed.⁴

Historically, the adaptation of tools prepared in other language was limited to the simple translation of the original or, exceptionally, to the literal comparison of the latter with retrotranslated versions. Nowadays, however, it is acknowledged that, if measures must be used by means of cultures, the items should not just be well translated linguistically, but should also be adapted culturally, to maintain the validity of the tool's content at a conceptual level.^{13,14}

With the development of translation and cultural adaptation methods it is absolutely possible for a tool developed for use in a given language and culture, to also be used, after translation and adaptation, in another language and in another cultural context.¹⁵

The aim of this study is to translate and to culturally adapt the Harris Hip Score assessment tool to the Portuguese language.

MATERIAL AND METHOD

The method of translation and cultural adaptation of the Harris Hip Score used the criteria described by Guillemin et al.¹³, which involved four stages: initial translation; back-translation; examination of the versions with preparation of a consensus version; and commented pre-test with development of the final version.

Initially the Harris Hip Score questionnaire in its original English version was translated into Portuguese by two bilingual independent sworn translators (T1 and T2), who had Portuguese as their native language and fluency in the English language. One of the translators was supposed to have knowledge in the area of health. After this the two versions were compared and analyzed, arriving at the synthesis of the two translations.¹³

In the next stage the synthesized version was translated back into the English language by another two bilingual translators (R1 and R2), whose native language was English, with fluency in the Portuguese language and residing in Brazil. The translators responsible for the back-translation were not supposed to be familiar with the original version of the questionnaire in English.¹³

Next the two translations obtained were assessed by a committee, formed by translators, health care professionals (one physician and three physiotherapists) and a Portuguese teacher in order to correct discrepancies by means of comparison with the original text and to prepare a consensus version. The questionnaire items had the idiomatic and conceptual semantics preserved.¹⁴⁻¹⁶

With the consensus version the pre-test was conducted with the participation of patients from the hip group of the Department of Orthopedics and Traumatology of Irmandade da Santa Casa de Misericórdia de São Paulo in treatment for a hip ailment, for evaluation of comprehension, acceptability of the tool and for the performance of any necessary alterations. This pre-test was carried out with 30 patients.¹⁶

After this a meeting was held among the questionnaire appliers to point out the difficulties encountered by the patients in the consensus version and to suggest terms of easier understanding.

The final Portuguese version of the Harris Hip Score was prepared with a basis on suggestions, including some explanations

between parentheses for those expressions considered hard to understand. Afterwards the questionnaire was reapplied to the same patients.

The stages of the process and the final Portuguese version were approved by the authors of the original version.

RESULTS

Table 1 presents the items of the original translation version, of the back-translations and of the consensus version of the HHS (pre-test).

The versions prepared by the translators (T1 and T2) for the items and sub-items of the assessment questionnaire were identical, with exception:

In item I (Pain) and sub-item D, the translators opted to simplify the expression "stronger than aspirin" using "analgésico simples" (simple analgesic), which is better suited to our milieu.

In item II (Function) and sub-item A, the translators opted for translation T2 for the term "marcha" (gait), apparently more appropriate than "modo de andar" (style of walking) (T2)

In item II (Function) and sub-item B4, we prioritized translation T1 over T2, simpler, "tomar transporte público" (take public transportation) than "entrar em transporte público" (enter public transportation).

During the performance of the pre-test mentioned with the 30 participants, difficulties were verified in the understanding of some expressions (gait, limp and severe). Further alterations were made, in our attempt to improve the cultural adaptation of the questionnaire. As our goal was semantic and non-literal equivalence, the expression "marcha" (gait) from the pre-test was substituted by "modo de andar" (style of walking). The term "claudicação" (limp) was substituted by "mancar" (limping) and "severo" (severe) by "grave" (serious). These alterations were suggested in consensus by the authors after the application of the questionnaires. There was no apparent difficulty with any other term during the pre-test.

In the reapplication of the new version of the questionnaire there was understanding by 100% of the patients as far as the semantics were concerned.

The final version of the HHS prepared after the pre-test, and with the layout used in the study, can be seen in Appendix 1.

DISCUSSION

There is no doubt that the use of assessment protocols is necessary in scientific studies, comparison of results, analysis of the effectiveness of clinical and surgical treatments and obtainment of increasingly trustworthy results.

Several tools for evaluation of the state of health and quality of life have been developed and used by researchers all over the world.

The Harris Hip Score is a widely used and specific assessment tool for the hip joint. It presents a scale with a maximum of 100 points, including evaluation of pain, function, deformity and motion.^{5,7} Although used worldwide, including Brazil, it had not yet been adapted culturally to the Brazilian situation.

The aim of this study was to translate and culturally adapt the Harris Hip Score assessment tool.

Table 1: Items of the original version, of the translations, of the back-translations and of the HHS consensus version (pre-test).

Versão original	Traduções	
	T1	T2
I. Pain (44 possible) A. None or ignores it 44 B. Slight, occasional, no compromise in activities 40 C. Mild pain, no effect on average activities, rarely moderate pain with unusual activity, may take aspirin 30 D. Moderate pain, tolerable but makes concessions to pain. Some limitation of ordinary activity or work. May require occasional pain medicine stronger than aspirin 20 E. Marked pain, serious limitation of activities 10 F. Totally disabled, crippled, pain in bed, bedridden 0	1. Dor (44 possíveis) A. Nenhuma ou a ignora 44 B. Leve, eventual, não compromete as atividades 40 C. Dor branda, sem impacto nas atividades habituais, raramente dor moderada em atividade incomum, pode tomar aspirina 30 D. Dor moderada, tolerável, mas faz concessões à dor. Alguma limitação da atividade ou trabalho habitual. Ocasionalmente pode necessitar de analgésico mais forte que aspirina 20 E. Dor acentuada, grave limitação das atividades 10 F. Totalmente incapacitado, aleijado, dor na cama, confinado ao leito 0	1. Dor (44 possíveis) A) Nenhuma ou ignora 44 B) Leve, ocasional, não compromete as atividades 40 C) Dor fraca, não interfere nas atividades médias, raramente dor moderada com atividade pouco comum, pode tomar aspirina 30 D) Dor moderada, tolerável, mas faz concessões à dor. Alguma limitação nas atividades comuns ou no trabalho. Ocasionalmente precisa de analgésico 20 mais forte que a aspirina. E) Dor acentuada, atividades bastante limitadas 10 F) Invalidez total, deficiente, dor na cama, não sai da cama 0
II. Function (47 possible) A. Gait (33 possible) 1. Limp a. None 11 b. Slight 8 c. Moderate 5 d. Severe 0	II. Função (47 possíveis) A. Modo de andar (33 possíveis) 1. Claudicação a. Nenhuma 11 b. Ligeira 5 e. Moderada 5 d. Grave 0	II. Função (47 possíveis) A. Marcha (33 possíveis) 1. Claudicação a) Nenhuma 11 b) Leve 8 c) Moderada 5 d) Forte 0
2. Support a. None 11 b. Cane for long walks 7 c. Cane most of the time 5 d. One crutch 3 e. Two canes 2 f. Two crutches 0 g. Not able to walk (specify reason) 0	2. Apoio a. Nenhum 11 b. Bengala para caminhadas longas 7 e. Bengala na maior parte do tempo 5 d. Uma muleta 3 c. Duas bengalas 2 f. Duas muletas 0 g. Incapaz de andar (especificar a razão) 0	2. Apoio a) Nenhum 11 b) Bengala para caminhadas longas 7 c) Bengala a maior parte do tempo 5 d) Uma muleta 3 e) Duas bengalas 2 f) Duas muletas 0 g) Não consegue andar (especificar o motivo) 0
3. Distance Walked a. Unlimited 11 b. Six blocks 8 c. Two or three blocks 5 d. Indoors only 2 e. Bed and chair 0	3. Distância percorrida a) Ilimitada 11 b) 6 quarteirões 8 c) 2-3 quarteirões 5 d) Somente dentro de casa 2 e) Da cama até a cadeira 0	3. Distância que consegue andar a) Ilimitada 11 b) 6 quarteirões 8 c) 2-3 quarteirões 5 d) Apenas dentro de casa 2 e) Da cama até a cadeira 0
B. Activities (14 possible) 1. Stairs a. Normally without using a railing 4 b. Normally using a railing 2 c. In any manner 1 d. Unable to do stairs 0	B. Atividades (14 possíveis) 1. Escadas a. Normalmente, sem usar um corrimão 4 b. Normalmente, usando um corrimão 2 e. De qualquer forma 1 d. Não consegue usar escadas 0	B. Atividades (14 possíveis) 1. Subir e descer escada a) Normalmente sem segurar no corrimão 4 b) Normalmente segurando no corrimão 2 c) De qualquer maneira 1 d) Não consegue subir nem descer escada 0
2. Shoes and Socks a. With ease 4 b. With difficulty 2 c. Unable 0	2. Sapatos e meias a. Com facilidade 4 b. Com dificuldade 2 e. Incapaz 0	2. Calçar sapato e meia a) Com facilidade 4 b) Com dificuldade 2 c) Não consegue 0
3. Sitting a. Comfortably in ordinary chair one hour 5 b. On a high chair for one-half hour 3 c. Unable to sit comfortably in any chair 0	3. Sentar a. Confortavelmente em cadeira comum por uma hora 5 b. Em uma cadeira alta por 1/2 hora 3 e. Impossível sentar confortavelmente em qualquer cadeira 0	3. Sentar a) Senta-se confortavelmente em cadeira comum durante uma hora 5 b) Senta-se em cadeira alta durante meia hora 3 c) Não consegue sentar-se de forma confortável em nenhuma cadeira 0
4. Enter public transportation 1	4. Entrar em transporte público 1	4. Tomar condução 1
III. Absence of deformity points (4) are given if the patient demonstrates: A. Less than 30° fixed flexion contracture B. Less than 10° fixed adduction C. Less than 10° fixed internal rotation in extension D. Limb-length discrepancy less than 3.2 centimeters	III. Será considerada ausência de pontos de deformidade (4) caso o paciente demonstre: A. Menos de 30° de contratura fixa em flexão B. Menos de 10° de adução fixa C. Menos de 10° de rotação interna fixa em extensão D. Discrepância do comprimento de membros inferior a 3,2 centímetros	III. Considera-se não haver pontos de deformidade (4) quando o paciente apresenta: A) Contratura em flexão fixa inferior a 30° B) Contratura em adução fixa inferior a 10° C) Contratura em rotação interna fixa em extensão inferior a 10° D) Discrepância no comprimento dos membros inferior a 3,2 centímetros
IV. Range of motion (index values are determined by multiplying the degrees of motion possible in each arc by the appropriate index) A. Flexion 0-45 degrees X 1.0 45-90° X 0.6 90-110° X 0.3 B. Abduction 0-15° X 0.8 15-20° X 0.3 over 20° X 0 C. External rotation in ext. 0-15° X 0.4 over 15° X 0 D. Internal rotation in extension any X 0 E. Adduction 0-15° X 0.2	IV. Faixa de mobilidade (valores índices são determinados multiplicando-se os graus de movimentação possível em cada arco pelo índice adequado) A. Flexão 0-45 graus X 1,0 45-90° X 0,6 90-110° X 0,3 B. Abdução 0-15° X 0,8 15-20° X 0,3 mais de 20° X 0 C. Rotação externa na extensão 0-15 X 0,4 mais de 15° X 0 D. Rotação interna na extensão qualquer X 0 E. Adução 0-15° X 0,2	IV. Amplitude de movimento (o valor do índice é calculado pela multiplicação dos graus de movimento possíveis de cada arco pelo respectivo índice) A. Flexão 0-45 graus X 1,0 45-90° X 0,6 90-110° X 0,3 B. Abdução 0-15° X 0,8 15-20° X 0,3 mais de 20° X 0 C. Rotação externa na extensão 0-15 X 0,4 mais de 15° X 0 D. Rotação interna na extensão qualquer X 0 E. Adução 0-15° X 0,2
To determine the over-all rating for range of motion, multiply the sum of the index values X 0.05. Record Trendelenburg test as positive, level, or neutral.	Para determinar a classificação geral da faixa de mobilidade, multiplique a soma dos valores índices X 0,05. Registre o teste de Trendelenburg como positivo, nivelado ou neutro.	Para determinar a pontuação geral da amplitude de movimento, multiplique a soma dos valores do índice por 0,05. Registrar o teste de Trendelenburg como positivo, nivelado ou neutro.

Tabela 1 - Continuação.

Retrotraduções		Versão de Consenso
R1	R2	
<p>1. Pain (44 possible)</p> <p>A) None/ignores it 44</p> <p>B) Slight, occasional, no compromise in activities 40</p> <p>C) Mild pain, no effect on common activities, pain after activities, may take simple pain medication 30</p> <p>D) Moderate pain, tolerable, accepts limitations caused by pain. Some limitation of common activity or work. Occasionally takes pain medication stronger than aspirin 20</p> <p>E) Pronounced, serious limitation of activities 10</p> <p>F) Totally disabled, crippled, pain in bed, bedridden 0</p>	<p>1. Pain (44 possible)</p> <p>A) None/ignore 44</p> <p>B) Slight, occasional, does not hamper activities 40</p> <p>C) Mild pain, does not affect the performance of normal activities, pain after performing activities, may use a simple pain killer 40</p> <p>D) Moderate pain, tolerable, accepts limitation caused by the pain. Limitation of some kind in normal activity or work. Takes pain killer stronger than aspirin occasionally 20</p> <p>E) Pronounced, very limited activities 10</p> <p>F) Totally incapacitated, crippled, pain in bed, bedridden 0</p>	<p>I. Dor (44 possíveis)</p> <p>A) Nenhuma ou ignora 44</p> <p>B) Leve, ocasional, sem comprometimento das atividades 40</p> <p>C) Dor fraca, não afeta a prática de atividades comuns, raramente dor moderada após a prática de atividades incomuns, pode fazer uso de analgésico simples 30</p> <p>D) Dor moderada, tolerável mas convive com limitação causada pela dor. Alguma limitação para atividades comuns ou no trabalho. Pode ocasionalmente necessitar de medicação para dor mais forte que analgésico simples 20</p> <p>E) Acentuada, atividades bastante limitadas 10</p> <p>F) Totalmente incapacitado, aleijado, dor na cama, acamado 0</p>
<p>II. Function (47 possible)</p> <p>A. Marching (33 possible)</p> <p>1. Limp</p> <p>a) None 11</p> <p>b) Slight 8</p> <p>c) Moderate 5</p> <p>d) Severe 0</p> <p>2. Support</p> <p>a) None 11</p> <p>b) Cane for long walks 7</p> <p>c) Cane most of the time 5</p> <p>d) One crutch 3</p> <p>e) Two canes 2</p> <p>f) Two crutches 0</p> <p>g) Unable to walk (specify reason) 0</p> <p>3. Walking distance</p> <p>a) Unlimited 11</p> <p>b) 6 blocks 8</p> <p>c) 2-3 blocks 5</p> <p>d) Only inside the house 2</p> <p>e) Bed and chair 0</p> <p>B. Activities (14 possible)</p> <p>1. Go up and down stairs</p> <p>a) Normally without holding onto a railing 4</p> <p>b) Normally holding onto a railing 2</p> <p>c) In any manner 1</p> <p>d) Unable to go up or down stairs 0</p> <p>2. Put on shoes and socks</p> <p>a) With ease 4</p> <p>b) With difficulty 2</p> <p>c) Unable 0</p> <p>3. Sitting</p> <p>a) Sits comfortably in an ordinary chair for one hour 5</p> <p>b) Sits in a high chair for one-half hour 3</p> <p>c) Unable to sit comfortably in any chair 0</p> <p>4. Uses public transportation 1</p>	<p>II. Função (47 possíveis)</p> <p>A. Marcha (33 possíveis)</p> <p>1. Claudicação</p> <p>a) Nenhuma 11</p> <p>b) Leve 8</p> <p>c) Moderada 5</p> <p>d) Severa 0</p> <p>2. Apoio</p> <p>a) Nenhum 11</p> <p>b) Bengala para caminhadas longas 7</p> <p>c) Bengala a maior parte do tempo 5</p> <p>d) Uma muleta 3</p> <p>e) Duas bengalas 2</p> <p>f) Duas muletas 0</p> <p>g) Não consegue andar (especificar o motivo) 0</p> <p>3. Distância que consegue andar</p> <p>a) Ilimitada 11</p> <p>b) 6 quarteirões 8</p> <p>c) 2-3 quarteirões 5</p> <p>d) Apenas dentro de casa 2</p> <p>e) Da cama até a cadeira 0</p> <p>B. Atividades (14 possíveis)</p> <p>1. Subir e descer escada</p> <p>a) Normalmente sem segurar no corrimão 4</p> <p>b) Normalmente segurando no corrimão 2</p> <p>c) De alguma maneira 1</p> <p>d) Não consegue subir nem descer escada 0</p> <p>2. Calçar sapato e meia</p> <p>a) Com facilidade 4</p> <p>b) Com dificuldade 2</p> <p>c) Não consegue 0</p> <p>3. Sentar</p> <p>a) Senta-se confortavelmente em cadeira comum durante uma hora 5</p> <p>b) Senta-se em cadeira alta durante meia hora 3</p> <p>c) Não consegue sentar-se de forma confortável em nenhuma cadeira 0</p> <p>4. Tomar transporte público 1</p>	<p>II. Função (47 possíveis)</p> <p>A. Marcha (33 possíveis)</p> <p>1. Claudicação</p> <p>a) Nenhuma 11</p> <p>b) Leve 8</p> <p>c) Moderada 5</p> <p>d) Severa 0</p> <p>2. Apoio</p> <p>a) Nenhum 11</p> <p>b) Bengala para caminhadas longas 7</p> <p>c) Bengala a maior parte do tempo 5</p> <p>d) Uma muleta 3</p> <p>e) Duas bengalas 2</p> <p>f) Duas muletas 0</p> <p>g) Não consegue andar (especificar o motivo) 0</p> <p>3. Distância que consegue andar</p> <p>a) Ilimitada 11</p> <p>b) 6 quarteirões 8</p> <p>c) 2-3 quarteirões 5</p> <p>d) Apenas dentro de casa 2</p> <p>e) Da cama até a cadeira 0</p> <p>B. Atividades (14 possíveis)</p> <p>1. Subir e descer escada</p> <p>a) Normalmente sem segurar no corrimão 4</p> <p>b) Normalmente segurando no corrimão 2</p> <p>c) De alguma maneira 1</p> <p>d) Não consegue subir nem descer escada 0</p> <p>2. Calçar sapato e meia</p> <p>a) Com facilidade 4</p> <p>b) Com dificuldade 2</p> <p>c) Não consegue 0</p> <p>3. Sentar</p> <p>a) Senta-se confortavelmente em cadeira comum durante uma hora 5</p> <p>b) Senta-se em cadeira alta durante meia hora 3</p> <p>c) Não consegue sentar-se de forma confortável em nenhuma cadeira 0</p> <p>4. Tomar transporte público 1</p>
<p>III. No score for deformity (4) is considered when the patient presents:</p> <p>A) Fixed flexion contracture lower than 30°</p> <p>B) Fixed abduction contracture lower than 10°</p> <p>C) Fixed internal rotation contracture under extension lower than 10°</p> <p>D) Discrepancy in length of members lower than 3,2 centimeters</p>	<p>III. It is believed that there are no points of deformity (4) when the patient presents:</p> <p>A) Contracture in fixed flexion less than 30°</p> <p>B) Contracture in fixed adduction less than 10°</p> <p>C) Contracture in fixed internal rotation in extension less than 10°</p> <p>D) Less than 3.2 centimeters discrepancy in the length of the limbs</p>	<p>III Considera-se não haver pontos de deformidade (4) quando o paciente apresenta:</p> <p>A) Contratura em flexão fixa inferior a 30°</p> <p>B) Contratura em adução fixa inferior a 10°</p> <p>C) Contratura em rotação interna fixa em extensão inferior a 10°</p> <p>D) Discrepância no comprimento dos membros inferior a 3,2 centímetros</p>
<p>IV. Range of movement (index value is calculated by multiplying the possible degrees of movement of each arc by the respective index)</p> <p>A. Flexion 0—45 degrees X 1.0</p> <p>45—90° X 0.6</p> <p>90—110° X 0.3</p> <p>B. Abduction 0—15° X 0.8</p> <p>15—20° X 0.3</p> <p>greater than 20 X 0</p> <p>C. External rotation under extension 0—15 X 0.4</p> <p>greater than 15° X 0</p> <p>D. Internal rotation under any extension X 0</p> <p>E. Adduction 0—15° X 0.2</p>	<p>IV. Amplitude of movement (the amount of the index is calculated by multiplying the degrees of possible movement of each arc by the respective index)</p> <p>A. Flexion 0—45 degrees X 1.0</p> <p>45—90° X 0.6</p> <p>90—110° X 0.3</p> <p>B. Abduction 0—15° X 0.8</p> <p>15—20° X 0.3</p> <p>more than 20 X 0</p> <p>C. External rotation on the extension 0—15 X 0.4</p> <p>more than 15° X 0</p> <p>D. Internal rotation on the extension any X 0</p> <p>E. Adduction 0—15° X 0.2</p>	<p>IV. Amplitude de movimento (o valor do índice é calculado pela multiplicação dos graus de movimento possíveis de cada arco pelo respectivo índice)</p> <p>A. Flexão 0—45 graus X 1,0</p> <p>45—90° X 0,6</p> <p>90—110° X 0,3</p> <p>B. Abdução 0—15° X 0,8</p> <p>15—20° X 0,3</p> <p>mais de 20° X 0</p> <p>C. Rotação externa em extensão 0—15 X 0,4</p> <p>mais de 15° X 0</p> <p>D. Rotação interna em extensão qualquer X 0</p> <p>E. Adução 0—15° X 0,2</p>
<p>To determine the score for general range of movement, multiply the sum of the index values by 0,05. Record the Trendelenburg test as positive, leveled or neutral.</p>	<p>To determine the general range of motion, multiply the sum of the index amounts by 0.05. Record the Trendelenburg test as positive, level or neutral.</p>	<p>Para determinar a pontuação geral da amplitude de movimento, multiplicar a soma dos valores do índice por 0,05. Registrar o teste de Trendelenburg como positivo, nivelado ou neutro.</p>

APPENDIX 1

Harris Hip assessment tool

I. Pain (44 possible)

- A) None or ignores it 44
- B) Slight, occasional, no compromise in activities 40
- C) Mild pain, no effect on common activities, rarely moderate pain with unusual activity, may take simple pain medication 30
- D) Moderate pain, tolerable, accepts limitations caused by pain. Some limitation of common activities or work. Occasionally takes pain medication stronger than aspirin 20
- E) Pronounced, serious limitation of activities 10
- F) Totally disabled, crippled, pain in bed, bedridden 0

II. Function (47 possible)

A. Gait (33 possible)

- 1. Limp
 - a) None 11
 - b) Slight 8
 - c) Moderate 5
 - d) Severe 0

- 2. Support
 - a) None 11
 - b) Cane for long walks 7
 - c) Cane most of the time 5
 - d) One crutch 3
 - e) Two canes 2
 - f) Two crutches 0
 - g) Not able to walk 0
(specify reason: _____)

- 3. Distance walked
 - a. Unlimited 11
 - b. 6 blocks 8
 - c. 2-3 blocks 5
 - d. Indoors only 2
 - e. Bed and chair 0

B. Activities (14 possible)

- 1. Stairs
 - a) Normally without using a railing 4
 - b) Normally using a railing 2
 - c) In any manner 1
 - d) Unable to do stairs 0

2. Shoes and socks

- a) With ease 4
- b) With difficulty 2
- c) Unable 0

3. Sitting

- a) Comfortably in ordinary chair one hour 5
- b) On a high chair for one half hour 3
- c) Unable to sit comfortably in any chair 0

4. Enter public transportation 1

III Absence of deformity points (4) are given if the patient demonstrates:

- A) Less than 30° fixed flexion contracture
- B) Less than 10° fixed adduction
- C) Less than 10° fixed internal rotation in extension
- D) Limb length discrepancy less than 3.2 centimeters

IV. Range of motion (index values are determined by multiplying the degrees of motion possible in each arc by the appropriate index)

A. Flexion

- 0—45 degrees X 1.0
- 45—90° X 0.6
- 90—110° X 0.3

B. Abduction

- 0—15° X 0.8
- 15—20° X 0.3
- over 20° X 0

C. External rotation in extension

- 0—15 X 0.4
- over 15° X 0

D. Internal rotation in extension

- any X 0

E. Adduction

- 0—15° X 0.2

To determine the overall rating for range of motion, multiply the sum of the index values X 0.05. Record Trendelenburg test as positive, level or neutral.

Even though clinical protocols are efficient, validated and tested, when merely translated from the source language, in a literal manner, they might not be adapted to the cultural situation of the country in which it is to be used. For this reason the process of translation and cross-cultural adaptation is necessary, also aiming, whenever possible, to maintain the semantic, idiomatic and conceptual form, preserving the original idea.^{13,14}

In this study the participants opted to make as few changes as possible in the structure of the original tool, not including or excluding items from the scale, to avoid promoting further alterations of the psychometric properties, allowing the comparison of versions.¹⁶⁻¹⁸

A method that can facilitate the translation for terms tangible to the general population, avoiding jargon and technical terms, is the use of a translator without a background in the area of health, as utilized in the study.¹⁶

During the application of the questionnaire in the pre-test we encountered difficulties in the comprehension of some terms not known by the general population, such as "marcha", "claudicação" and "severo", which were substituted by "modo de andar", "mancar" and "grave", in order to adapt it to the patients' understanding. The final version was prepared among the authors with these changes, and the questionnaire was reapplied, verifying optimal

applicability with 100% of understanding on the part of the population. This phase is of extreme importance to the cross-cultural adaptation process, as it allows us to identify whether the translation was applicable, and whether the terms used were adequate for the population.

The cross-cultural adaptation strives to ensure consistency in the validity of content between the versions of the questionnaire (original and in the target language). Subtle differences in living habits in the different cultures might make an item from the questionnaire more or less difficult to understand, and may alter the psychometric and statistical properties of the tool.¹⁶⁻¹⁸

CONCLUSION

Tools prepared in a foreign language require a careful cross-cultural adaptation process for their use in a socio-cultural reality. The stages covered for preparation of the Brazilian version of the Harris Hip Score allowed the delivery of this additional standardized tool in the assessment of the quality of life of patients with hip ailments, with good comprehension and acceptance among the patients tested.

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