

The Brazilian version of Shoulder Pain and Disability Index - translation, cultural adaptation and reliability*

Versão brasileira do Shoulder Pain and Disability Index: tradução, adaptação cultural e confiabilidade*

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Abstract

Objectives: To translate and culturally adapt the Shoulder Pain and Disability Index (SPADI) into Brazilian-Portuguese and to assess its reliability. **Methods:** The first step was the translation, synthesis, back-translation, revision by the committee, pre-testing and evaluation of documents by the committee and the author of the SPADI. The revised version by the committee was applied to 90 subjects with shoulder dysfunction, aged over 18 years from different education and sociocultural levels. The items misunderstood by 20% or more of patients were reformulated and reapplied until they reach values lower than 20%. The second stage consisted of two applications of SPADI to 32 patients with shoulder dysfunction in a interval ranging from 2 to 7 days. The data from the translation were analyzed descriptively, the test-retest reliability by Intraclass Correlation Coefficient (ICC) and the internal consistency by Cronbach's Alpha. **Results:** Some expressions have been adapted to the Brazilian population and the items in the pain and disability subscales were changed for an easier reading in Portuguese Language. The pre-test revealed a need to change only one item of the pain domain and to administer the questionnaire by interview, since it was repeated three times and in the first two applications with self-reported questionnaire the patients had not been reporting their symptoms with regards to the past week and also they have not been properly used the item "Not Applicable". The test-retest reliability ranged from 0.90 to 0.94 and the internal consistency ranged from 0.87 to 0.89. **Conclusion:** After the translation and cultural adaptation, it was obtained a reliable version of SPADI-Brazil.

Key words: quality of life; questionnaires; translations; shoulder.

Resumo

Objetivos: Traduzir e adaptar culturalmente o questionário *Shoulder Pain and Disability Index* (SPADI) para a Língua Portuguesa do Brasil e avaliar sua confiabilidade. **Métodos:** A primeira etapa consistiu na tradução, síntese, retro-tradução, revisão pelo Comitê, pré-teste e avaliação dos documentos pelo comitê e pelo autor do SPADI. A versão revisada pelo Comitê foi aplicada a 90 indivíduos com disfunção no ombro, com faixa etária acima de 18 anos e níveis educacional e sociocultural variados. Os itens não compreendidos por 20% ou mais dos pacientes foram reformulados e reaplicados até alcançarem valores menores que esse. A segunda etapa consistiu de duas aplicações do SPADI a 32 pacientes com disfunção de ombro, no intervalo de 2 a 7 dias. Os dados de tradução foram analisados descritivamente, a confiabilidade teste-reteste, pelo Coeficiente de Correlação Intraclasse (ICC) e a consistência interna, pelo *Alpha de Cronbach*. **Resultados:** Algumas expressões foram adaptadas à população brasileira, e os itens da escala de dor e incapacidade foram alterados para maior facilidade de leitura na Língua Portuguesa. O pré-teste revelou a necessidade de se alterar apenas um item de dor e de se aplicar o questionário por entrevista, pois ele se repetiu três vezes e, nas duas primeiras aplicações, com o questionário autoaplicado, os pacientes não realizaram o relato referente à "semana passada" e utilizaram inadequadamente o item "Não se aplica". A confiabilidade teste-reteste variou de 0,90 a 0,94, e a consistência interna de 0,87 a 0,89. **Conclusão:** Após a tradução e adaptação cultural, foi obtida uma versão confiável do SPADI-Brasil.

Palavras-chave: qualidade de vida; questionários; tradução (produto); ombro.

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Introduction

The instruments for assessing the health-related quality of life have been considered essential to determine the impact of disease on person's life¹, since there is a need to understand the consequences of the disease, and not being exclusively restricted to clinical diagnosis². Within this new approach of patients assessment, the questionnaires related to the functional assessment is highlighted³, since they can offer to the therapists information with regards to patient's level of function, contributing for clinical decision-making process.

Shoulder dysfunctions are among the most common causes of musculoskeletal pain, and its prevalence may reach about 20% to 33% of the general population⁴.

Several self-report measures have been developed in English for measuring shoulder's functionality⁵⁻¹⁵ and it has been encouraged the translation, cross-cultural adaptation and validation of these tools rather than creating a new instruments^{16,17}, which avoids the indiscriminate proliferation of assessment tools¹⁸.

Some self-report questionnaires focused on the shoulder and upper extremity have already been translated and adapted for Brazilian-Portuguese language, such as the commonly used questionnaires: *The Disabilities of the Arm, Shoulder and Hand Questionnaire* (DASH)¹⁹, the *Modified-University of California at Los Angeles Shoulder Rating Scale (modified - UCLA)*²⁰ and the *Western Ontario Rotator Cuff Index* (WORC)²¹. However, the DASH is a less specific questionnaire since it involves all joints from the upper extremity; the Brazilian version of the modified-UCLA scale have not been tested for its psychometric properties; and the WORC is a questionnaire developed exclusively for the assessment of subjects with rotator cuff dysfunctions.

The *Shoulder Pain and Disability Index* (SPADI) is a quality of life questionnaire developed to assess pain and disability associated with shoulder disorders⁶. Initially, the SPADI was proposed in Visual Analogue Scale (VAS)⁶, and subsequently validated on Numeric Rating Scale (NRS)²² and cross-culturally adapted and validated for German²³ and Slovak²⁴ languages. Several studies have supported the use of SPADI on clinical practice and research²⁵⁻²⁸, since it is a specific questionnaire for the shoulder joint; has all the psychometric properties evaluated; has short questions with answers in NRS format that facilitate its completion, requiring about 3 to 10 minutes to be completed^{12,25,26}.

Highlighted among the six highest-quality questionnaires²⁶, the SPADI in the numeric version consists of 13 items distributed in the pain domain (five items) and disability domain (eight items), being each item scored in a NRS ranging from 0 to 10 points. The total score of the questionnaire, as well as the score of each domain separately is converted in percentages ranging from 0 to 100, with the higher scores indicating a worst condition of shoulder dysfunction.

The objectives of this study were to translate and culturally adapt the SPADI questionnaire into Brazilian-Portuguese and to analyze its reliability in different musculoskeletal pain conditions specific to the shoulder joint complex.

Methods

Participants

Participated in the phase of cultural adaptation of the SPADI (phase I) 90 patients with clinical diagnosis of different shoulder conditions and 32 patients in the phase of testing the reliability of the SPADI-Brazil (phase II). Patients were consecutively recruited from the Rehabilitation Center (CER) and from the Hand and Microsurgery Outpatient Clinic (OMR) from a public university tertiary care hospital, from São Paulo state/Brazil. In the phase II, patients were recruited only from the CER. The mean age was of 48 years (SD=14 years, range=18 to 75 years) and 50 years old (SD=17 years, range=19 to 83 years) in phases I and II, respectively. The predominant clinical diagnosis was shoulder impingement syndrome and rotator cuff injury, both in phase I (52.2%) and in phase II (53.1%), being the humeral fracture and the shoulder instability, respectively, the second and third most common diagnoses. In phase I, which might be influenced by the education level, were observed predominantly patients with a primary school certificate (49%), followed by 34% with a high school certificate, and 17% with an university degree. Patients with cognitive impairment and neurological and rheumatologic disease were excluded from the study. Illiterate patients or those with visual impairment for reading were also excluded in the first and second pre-tests, since the questionnaire was self-reported. The third pre-test and the phase II, conducted through interviews, also included illiterate participants.

This study had been approved by the Ethics Research Committee of the Hospital das Clínicas, Faculty of Medicine of Ribeirão Preto, from the University of São Paulo (HCFMRP-USP), Ribeirão Preto, SP, Brazil (process number 10534/2007). All patients who agreed to participate in the study signed the consent form.

Procedures

This study was conducted in two phases, being the phase I consisted in obtaining the Brazilian-Portuguese version of SPADI, and the phase II in the analysis of its test-retest reliability and internal consistency.

The cultural adaptation of the SPADI for the Brazilian population was based on the methods proposed by Beaton et al.¹⁷, consisting of six stages documented by a written report:

translation, synthesis, back-translation, revision by a Committee of experts, pre-test and submission of the documents to the authors of SPADI and to the Committee of experts for approval of the process.

Initially, the author of the SPADI was contacted and authorized the study to be conducted, ensuring that concurrent studies would not be performed in parallel to this study.

The SPADI translation was performed by two foreign language teachers, whom have the Brazilian-Portuguese as a mother tongue and also have fluency in English, being only one of them aware of the concepts examined in the questionnaire. Only the T1 and T2 versions from the questionnaire were produced, which were analyzed for comparison between them and to the original version. This comparison was performed by the translators and investigators to obtain the synthesis version T12 in Brazilian-Portuguese.

The version T12 was translated from Brazilian-Portuguese into English (back-translation) by two translators that had the English as their mother language and were fluent in Portuguese. They did not know the original version of the questionnaire and were not professionals from the health field. The versions BT1 and BT2 were, then, created. All the versions from the questionnaire (original, T1, T2, T12, BT1 and BT2) were reviewed by a multidisciplinary committee of experts composed of one orthopedic surgeon, specialized in the upper extremity; by five physical therapists, of whom three are researchers on physical therapy assessment of musculoskeletal impairments of the shoulder complex, and by the translators involved in the process, which resulted in the development of the pre-final version of the SPADI – Brazil.

The pre-final version of the SPADI-Brazil was administered to 30 individuals with shoulder dysfunctions diagnosed during the pre-test, being necessary to repeat this stage three times until every item from the questionnaire was understood by more than 80% from the patients in the last application, in other words, for more than 25 of the 30 patients. Only the items misunderstood by 20% or more than the patients (six or more patients) at each application, were reformulated^{19,29,30}. However, this new item was not administered isolated, since the complete questionnaire was applied in each pre-test. The patients were asked about their comprehension of each item and they reported if they had understood or not and, for the items related to function, they demonstrated the activity. Questions with regards to each of the items were performed after administration of the questionnaire, in order to guarantee the self-report administration of the SPADI-Brazil and to avoid interrupting the patients constantly.

The first pre-test identified the items which needed to be reformulated in a meeting of the researchers' committee, and a new version of the SPADI – Brazil was, then, administered in its totality to other 30 patients, with the same purpose and observing the methods of the first application. Some structural aspects of the questionnaire remained with values above 20% with regards

to the misunderstanding and the researchers' committee decided that such problems would be probably solved in a third application performed by interview. In order to do this, before the third application, the Committee informed the author from the original version about the adaptation of the questionnaire for application through interview and prepared a material with orientations for the examiners in order to conduct it adequately. The principal investigator, guided by the material, read aloud all the items, gave explanations about the questionnaire completion and, whenever necessary, demonstrated the adequate interpretation of each item for the patient. During the interview, the examiner verified if the patient had understood each item or if additional explanation was necessary. The final version of the SPADI-Brazil was obtained after the third pretest, which was performed in two phases. The questionnaire was administered to five patients through an interview. After this test's analysis, some modifications were performed, and the pre-final version of the SPADI was administered to 25 patients, ending the process of cultural adaptation.

The pre-test phase was concluded by the remittance of the questionnaire SPADI-Brazil in English to the author of the original version, and she conceded approval for the Brazilian version of SPADI, based in the monitoring of the complete process of cultural adaptation.

The second phase of this study consisted in the application of SPADI-Brazil in two interviews, with an interval period that ranged from 2 to 7 days, according to the next day of patient's attendance in the rehabilitation setting^{19,21}. It was used a scale for the assessment of the global changes in order to identify the patients who remained stable, without clinical changes³¹.

The analysis of the cultural adaptation was descriptive, performed by mean, standard deviation and relative and absolute frequencies. Test-retest reliability was performed using the Intraclass Correlation Coefficient (ICC)³², and the reliability of internal consistency by the coefficient Cronbach's Alpha³³, whose values were accepted between 0.70 and 0.90²⁶.

Results : : : .

The translation phase resulted in the creation of instructions about the completion of the numerical version of SPADI and on the inclusion, in the response options, of the item "Not Applicable" (NA), with the consent of the original author. The versions T1 and T2 presented few divergences, which were solved in the synthesis version T12 (Table 1). At this phase, all the items from the scale of pain and disability were grammatically changed to ease its comprehension.

The back-translations BT1 and BT2 revealed an important similarity between them and an equivalence with the original numerical version of the SPADI, which demonstrated that the

synthesis version T12 was satisfactory to obtain the pre-final version of the SPADI. The Committee only considered necessary to complement the initial question to the scales of pain and disability with the phrase “During the past week” to reinforce, for the patients, the idea that all items referred to the pain and difficulty perceived in the past week.

Table 1. Modifications performed during the translation Stage.

Modified term	T1 and T2	T12 Version
<i>How severe is your pain:</i>	T1 - Quanto grave é sua dor: T2 - Qual é a gravidade da sua dor:	Qual é a gravidade da sua dor?
P3 - High shelf	T1 - Prateleira T2 - Estante	Prateleira
P4 - Back of your neck	T1 - Nuca T2 - Parte posterior do pescoço	Parte de trás do pescoço
D3 - Undershirt or pullover sweater	T1 - Camiseta ou agasalho T2 - Camisa ou blusa	Vestir uma camiseta ou blusa pela cabeça
D4 - Shirt	T1 - Camiseta T2 - Camisa	Camisa
D7 - 10 pounds	T1 - 5 kg T2 - 10bs (4,53kg)	5 kg

T1=Portuguese version with regards to the first translator; T2=Portuguese version with regards to the second translator; T12=Synthesis version of the Portuguese language; P=Pain scale; D=Disability scale.

The Brazilian version of the SPADI (Appendix 1) was obtained after three repetitions of the pre-test (Table 2). In the first administration of the questionnaire, more than 20% of patients had shown difficult to understand the first item from the scale of pain and the answer option NA; in the second administration of the questionnaire, the answer item NA remained misunderstood, and patients did not perform their report in relation to the past week. These problems were solved only through interview, during the third administration, once the researcher was responsible to explain the use of the item NA and to remember the patient to perform their report with regards to the “past week”. In addition, to solve the problem concerning the choice for the item NA, it was asked for the patient to estimate which number he/she would give to their difficulty or pain, in the case they did not have the opportunity to perform one of the activities during the past week.

The internal consistency had shown, for each domain and for the total SPADI-Brazil, acceptable values of 0.70 to 0.90, as shown on Table 3. Test-retest reliability was performed only for the stable patient whom returned for the second interview, in other words, 32 of the 49 patients, showing excellent values of ICC equal or higher to 0.90 for the pain and disability domains and for the SPADI - Brazil. The items presented ICCs that ranged from 0.64 to 0.92, with reliability values higher than 0.70 for eight items (Table 3).

Table 2. Items and structural features of pre-final version of SPADI misunderstood by patients and that were modified during cultural adaptation.

	1st Pre-test (N=30)	2nd Pre-test (N=30)	3rd Pre-test (N=30)
Not understood		Patients (%)	
Item P1	7 (23.3%)	1 (3.33%)	
Response option “Not applicable”	11 (37%)	10 (33.33%)	0 (0%)
Report about “past week”	1 (3%)	6 (20%)	0 (0%)

P=Pain subscale.

Table 3. Test-retest reliability of the SPADI-Brazil and for each subscale (and their individual items) and internal consistency of SPADI-Brazil and each subscale (n=32).

Item	ICC	95% CI	IC (α)
Disability subscale	0.90	(0.83; 0.97)	0.87
During the past week, what degree of difficulty did you have:			
1. Washing your hair with affected arm?	0.64	(0.44; 0.85)	
2. Washing your back with affected arm?	0.67	(0.48; 0.86)	
3. Putting a t-shirt or blouse on over your head?	0.78	(0.65; 0.92)	
4. Putting on a shirt that buttons in front?	0.50	(0.23; 0.76)	
5. Putting on your pants?	0.66	(0.46; 0.86)	
6. Putting something on a high shelf?	0.79	(0.67; 0.92)	
7. Carrying a heavy object of 10 pounds (big bag of rice) with affected arm?	0.83	(0.73; 0.94)	
8. Removing something from your back pocket with affected arm?	0.92	(0.86; 0.97)	
Pain subscale	0.94	(0.91; 0.98)	0.88
1. What is the intensity of your pain when it was worst at past week?	0.79	(0.66; 0.92)	
During the past week, what is the severity of your pain:			
2. When you lay on affected arm?	0.80	(0.67; 0.92)	
3. When you tried to take something from a high shelf with affected arm?	0.91	(0.86; 0.97)	
4. When you tried to touch the back of the neck with affected arm?	0.88	(0.80; 0.96)	
5. When you tried to push something with the affected arm?	0.80	(0.68; 0.93)	
SPADI-Brazil	0.94	(0.90; 0.98)	0.89

ICC=Intraclass Correlation Coefficient; CI=Confidence Interval; IC (α)=Internal Consistency measured by Cronbach Alpha.

Discussion ◻◻◻

The conduction of the process of cultural adaptation from the SPADI through a constant contact with the author of the original version and of a rigorous methodology guaranteed to the SPADI – Brazil a format and language of easy comprehension and idiomatic and cultural equivalence to the Brazilian population. In addition, the quality of the Brazilian version of the SPADI can be confirmed since it is verified that many problems from SPADI were identified for the first time in this transcultural adaptation, and all the suggestions for changes proposed by this study were accepted by the author of the original scale.

The cultural adaptation of the SPADI-Brazil presented difficulties only at the pre-test stage, and the reliability analysis was performed easily, however, with loss of some patients. The inclusion of patients with greater difficult to complete the questionnaire, such as older adults or subjects with lower levels of education, probably contributed to the development of a Brazilian version of easiest comprehension, which was proved by the fact that all items were understood when the questionnaire were self reported.

The stages of translation, synthesis and back-translation of this study, in opposition to the pre-test phase, were performed easily and quickly and were mainly characterized by grammatical modifications that would be more applicable to the Brazilian Portuguese language as well as by modifications aiming to achieve cultural equivalence with the study population, such as the preference of the expression “t-shirt” instead of “sweater”, since this is the garment most frequently used in Brazil. The use of the word “t-shirt” needed to be followed by the expression “over your head” to maintain a meaningful equivalence with the original version, since sweaters and shirts are generally dressed with the elevation of the arms. It was also choose the expression “dress shirt”, for the item I4, since all of them have buttons, maintaining the concept of the original version.

As on the translation of the SPADI for German Language²³, the weight expression “10 pounds” was replaced for “5 kg”, since it is the unit of the metric system adopted in Brazil, and its rounding allowed the patients to relate this weight to some familiar object. It is important to mention that no item from the SPADI needed to be changed in relation to the activity questioned, since all of them explore the activities of daily living (ADL) familiar to the Brazilian population.

The pre-test stage was the most difficult to be performed and also the one that collaborated more to the development of the final version of SPADI – Brazil, since its administration highlighted problems not yet perceived on previous stages and revealed others still not observed by the author from the original version. The pre-final version of SPADI-Brazil was assessed in relation to its structure and format, as well as in relation to the easiness of comprehension of the items and the answering options, and to the ability of the

patients to perform their report adequately regarding “past week”. Thus, it was possible to rescue the instructions contained in the original version which were not published in its numerical version²² and clarified the purpose of SPADI to assess the patients’ level of disability in the performance of activities performed with the harmed upper extremity; so, different from the Brazilian DASH¹⁹, which assesses the global capacity of an individual to perform the activity, independently of the upper extremity used.

The first item referring to the pain was easily understood in the second pretesting since it was written in a more complete form and in a single phrase. The major difficulties found in the pretesting were the comprehension of the answer option “NA” without any help and the perception that they should do they report based in the “past week”. The participants did not perceive the item “NA” due to their desire to score their pain or disability. Therefore, in order to facilitate its perception, the item NA was modified to “I have not performed this during the last week” and positioned in front of the numerical scale. However, this change was also not satisfactory, since the patients who have ceased to perform one activity in the previous week because they did not receive help from another person, got confused in relation to the choice between the answers “I have not performed this during the last week” or the score 10 of the NRS that indicates “So difficult that help was needed”. Trying to solve the problem, the score 10 of the NRS was changed to “Unable to perform”, as performed by the study of Angst et al.²³, and questionnaire was administered by an interview, asking the examiner to explain for the patient simply and clearly when is necessary to choose the item NA and to remember he/she to complete the report with regards to “last week”.

The phase I of the third pretesting still revealed problems with the item NA, since it should be marked only when the subject did not do the activity because it does not make part of her/his lifestyle. However, it was observed a lack of answer option for those subjects who did not do the activity past week by chance, even when it was common in their daily life. Thus, the patients were oriented to estimate their answer about the pain and disability in case they had not performed the activity, as in the Brazilian questionnaires DASH¹⁹ and WORC²¹.

The analysis of several questionnaires for the upper extremity evidenced that few offer the patient the possibility to answer “Not applicable” for all the items, as performed by the SPADI – Brazil and by the Brazilian version recently obtained of the Penn Shoulder Score (PSS – Brazil)³⁴. Often, the questionnaires do not use this response option, being all the activities scored in a grade of difficulty or pain^{10,13,14,22,35}, they use them selectively, only for the items referent to activities with effort or sports activities, normally not characterized as ADL^{12,36}, or as the Brazilian questionnaires DASH¹⁹ and WORC²¹, which ask the patients to estimate the level of difficulty they would have if they were to perform the activity. Thus, the initiative from the

present study to include the item NA and the effort to guarantee its adequate marking represent a positive aspect for the version SPADI-Brazil, since it was aware with the identification of the activities that did not take part of patients' life context.

The transformation of the Brazilian version of SPADI in a questionnaire administered by interview was supported by the author from the original version and followed the trend of several questionnaires translated to Brazil^{34,37-41}. The interview was able to solve the remaining problems of the previous pretesting and contributed to the decrease of missing data of the questionnaire. Other instruments translated to the Brazilian-Portuguese were also transformed from self-administered to a tool applied by interview, such as the questionnaires PSS-Brazil²⁴, *Brazil Roland-Morris*²⁹ and the Brazilian DASH¹⁹. It is also observed that some questionnaires were administered both as an interview and self-administered, whenever possible³⁰, or even in the self-administered format added by the provision of instructions of how to complete the questionnaire⁴².

The reliability and internal consistency of the global SPADI – Brazil and for each domain were excellent, agreeing with studies by the literature (Table 4). The reliability of the total SPADI-Brazil and its domains was higher than that obtained by the majority of studies^{6,43-48} and similar to others^{23,24}. The reliability of the pain items was higher than the disability items, with a lower value for the item 5 of disability “Wearing a shirt with buttons in front?” (ICC=0.50), as also observed by Angst et al.²³ (ICC=0.68). Other three items concerning disability had values relatively low for reliability, ranging from 0.64 to 0.67, which suggests that subjects had a better perception of their pain compared to their functional limitation. According to Bot et al.²⁶, the ICC of a scale shall be above 0.90 for the individual assessment of patients, which suggests that SPADI-Brazil shall be used only as a function of their domains or total score, being the isolated use of an item discouraged.

The SPADI-Brazil presented an acceptable internal consistency²⁶ and consistent to other studies (Table 4), showing the homogeneity of the items in presenting a common variation.

The cultural adaptation of SPADI for the Brazilian Portuguese Language revealed few problems related to the items, being important to be alert to the structural aspects of the questionnaire that present the most important points of difficulty for comprehension. The initial analysis of the psychometric properties of the questionnaire showed that SPADI – Brazil is a reliable tool for the assessment of patients with shoulder dysfunction. However, this study presents limitations to ensure the use of the questionnaire in clinical settings and researches, once their remaining psychometric properties have not been tested yet.

The clinical and research relevance of this study consists in contributing for the availability of more than an option of instrument for the assessment of quality of life of patients with diverse shoulder dysfunctions. The SPADI – Brazil questionnaire offers to the therapist and researcher more information about patients' functionality with their affected arm, which may help clinical decision making in relation to continue, interrupt or modify an intervention, as well as targeting treatment to the actual limitations from the patients.

Conclusion

After the translation and cultural adaptation of the questionnaire, the Brazilian version of the SPADI was obtained, and showed to be a reliable tool for the assessment of quality of life of patients with diverse shoulder dysfunctions.

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Table 4. Test-retest reliability and internal consistency of SPADI-Brazil for this study and previous studies with similar methods from literature.

Studies	ICC			IC		
	P	D	Total	P	D	Total
Present study	0,94	0,90	0,94	0,88	0,87	0,89
Roach et al. ⁶	0,64	0,64	0,66	0,85	0,93	0,95
Beaton e Richards ⁴³	-	-	0,91	-	-	-
Roddey et al. ⁴⁴	-	-	-	0,89	0,95	0,96
Cook et al. ⁴⁵						
Patients with PO	0,91	0,57	0,91	0,90	0,94	-
Patients without PO	0,70	0,84	0,84	0,88	0,92	-
Schmitt e Di Fabio ⁴⁶	-	-	0,86	-	-	-
MacDermid, Solomon e Prkachin ²⁵	-	-	-	> 0,92	> 0,93	> 0,95
Angst et al. ²³	0,89	0,93	0,94	0,92	0,93	0,95
Ekeberg et al. ⁴⁷	0,72	0,85	0,85	0,74	0,89	0,91
Jamnik e Spevak ²⁴	0,89	0,95	0,94	0,78	0,90	0,92
Simmen et al. ⁴⁸	-	-	0,86	-	-	-

ICC=Intraclass Correlation Coefficient; IC=Internal Consistency; P=Pain subscale; D=Disability subscale; Total=SPADI total; PO=post-operative.

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Anexo 1. Versão brasileira do Shoulder Pain and Disability Index – SPADI-Brasil.

ÍNDICE DE DOR E INCAPACIDADE NO OMBRO SPADI-BRASIL	
Uma ferramenta para avaliar pacientes com disfunção no ombro quanto a sua dor e incapacidade para realizar atividades da vida diária.	
INSTRUÇÕES PARA O EXAMINADOR	
O questionário SPADI-Brasil pretende avaliar a dor no ombro e a habilidade do seu paciente para realizar as atividades da vida diária (AVDs).	
Recomenda-se a aplicação do questionário SPADI-Brasil na forma de ENTREVISTA .	
Para garantir ao paciente a máxima compreensão do questionário, pedimos a cada examinador que LEIA ATENTAMENTE as orientações a seguir:	
1) Orientações para o ambiente:	
Antes de iniciar a entrevista, tente encontrar um local silencioso, com uma mesa e cadeiras para você e seu paciente e certifique-se de que ele não está ansioso ou com pressa.	
2) Orientações para a aplicação do questionário:	
a) Durante a entrevista, é importante que o paciente olhe diretamente o questionário para responder à Escala de Avaliação Numérica (EN).	
b) É recomendável certificar-se de que o paciente compreende o significado da pontuação utilizada na escala numérica. Sempre que necessário, repita que o número “0” indica “sem dificuldade” e o número “10” indica “não conseguiu fazer”. Para a escala de dor, repita que “0” indica sem dor e “10” indica “pior dor”.	
c) Se o paciente tem acometimento bilateral, instrua-o a responder com base no que ele observa com relação ao braço que apresenta mais dor ou disfunção.	
d) O paciente deve relatar sua incapacidade e dor durante a <u>SEMANA PASSADA</u> . Recomenda-se, sempre que necessário, repetir essa expressão antes de iniciar a pergunta de cada item, como: “Durante a semana passada, qual o grau de dificuldade que você teve para...” e “Durante a semana passada, qual foi a gravidade da sua dor?”	
e) ATENÇÃO: Marque o item <u>NA</u> somente em último caso , quando o paciente já não realizava a atividade antes da lesão, ou seja, ele já não era acostumado a realizar tal atividade no seu dia a dia.	
Siga as orientações abaixo para preencher corretamente a EN e o item de resposta NA “Não se aplica” para os domínios de incapacidade e de dor.	
<ul style="list-style-type: none"> ▪ Se o paciente tentou realizar a atividade durante a semana anterior, oriente-o a pontuar sua dificuldade e dor na EN. ▪ Se o paciente precisou realizar a atividade na semana anterior, mas evitou deliberadamente realizá-la por medo de piorar ou para não provocar dor, ele deve estimar uma pontuação na EN para seu nível de incapacidade e dor caso tivesse feito a atividade. ▪ Se o paciente apenas não fez a atividade na semana anterior porque estava imobilizado ou proibido pelo médico de realizá-la, marque para o domínio de incapacidade o número 10 da EN “Não conseguiu fazer” e, para o domínio de dor, peça ao paciente para estimar um número na EN. ▪ Se o paciente não precisou realizar a atividade na semana anterior ou não se lembra de ter feito, você deve perguntar a ele se a atividade é comum ao seu dia a dia. Para resposta SIM, ele deve estimar uma pontuação na EN para seu nível de incapacidade e dor durante a semana anterior. Para resposta NÃO, ou seja, o paciente não é acostumado a realizar a atividade em questão e naturalmente não a teria feito, você deve marcar a coluna NA “Não se aplica”. Quando esta opção for a mais adequada ao caso do paciente, nenhum outro dos 10 números da EN deve ser assinalado. ▪ O número 10 da EN deve ser marcado a) quando o paciente estima que não teria conseguido realizar a atividade na semana anterior ou b) quando está imobilizado ou proibido pelo médico de realizá-la. 	
f) Antes de pontuar cada item, certifique-se de que o paciente compreendeu a pergunta e indicou a melhor resposta. Se não estiver claro para você que ele pensou na atividade correta, por favor, demonstre ou esclareça a atividade, refaça a questão e tome a resposta adequada para proceder à pontuação do item.	
IDENTIFICAÇÃO DO PACIENTE	
Nome completo: _____	Registro: _____
Data de nascimento: ___/___/_____	Idade: _____ Sexo: () F () M
Profissão: _____	Tel: _____
Hipótese diagnóstica: _____	
Cirurgia: () S () N	Qual: _____ Quando: _____
Dominância: () D () E	Braço com dor ou disfunção: () D () E () Ambos
Pior braço: () D () E	Há quanto tempo tem dor ou disfunção neste braço: _____

INFORMAÇÕES SOBRE ALGUNS ITENS

Escala de Incapacidade (I)

Itens 3, 4 e 5: Estes itens não apresentam a expressão “braço afetado”, porque as atividades a que se referem são realizadas normalmente com ambos os braços. Assim, o paciente deve relatar a atividade envolvendo a utilização de ambos os braços.

Escala de Dor (D)

Item 1: Este item pede ao paciente para indicar um número para a dor que ele teve no braço quando ela foi mais intensa. Como o questionário permite ao paciente estimar sua dor para os demais itens de dor, pode acontecer de sua pior dor na semana anterior ser menor que a dor indicada para algum item cujo nível de dor foi estimado. Recomenda-se refazer essa pergunta após pontuar os demais itens de dor.

Exemplo: Na semana passada, a vez que meu braço mais doeu foi na terça-feira e se eu pudesse dar um número para ela, esse número seria 7.

Pode-se deduzir, então, que na semana anterior o braço do paciente não doeu mais do que 7.

Item 6 (I) e item 3 (D): O paciente deve pensar em qualquer objeto que ele geralmente coloca em uma prateleira alta, no trabalho ou em casa. O objeto não precisa ser pesado.

PONTUAÇÃO DO QUESTIONÁRIO SPADI-BRASIL

1. Pontuação de cada escala separadamente

- Dentro de cada escala, some os números marcados para cada item e, então, divida o valor da soma pela máxima pontuação possível na escala. O valor encontrado deve ser multiplicado por 100, obtendo-se a pontuação final para cada escala.
- Caso o paciente tenha marcado algum item como “Não se aplica”, este item não deve ser incluído na máxima pontuação possível na escala.

Exemplo: Suponha que o paciente marcou 2 itens como “Não se aplica” na escala de incapacidade. Então, a máxima pontuação possível dessa escala deixa de ser 80 e passa a ser 60.

2. Pontuação total do questionário

Some os números marcados para todos os itens do questionário e, então, divida o valor pela máxima pontuação possível no questionário (desconsiderando os itens que foram marcados como “Não se aplica”). O valor encontrado deve ser multiplicado por 100, obtendo-se a pontuação total do questionário.

3. Significado da pontuação do questionário

A pontuação total do questionário pode variar de 0 a 100, sendo que quanto maior a pontuação, pior a situação de dor e/ou função do paciente.

ÍNDICE DE DOR E INCAPACIDADE NO OMBRO (SPADI-BRASIL)

Nome: _____ Braço avaliado: _____ Data: ___/___/___

Escala de Incapacidade

Os números ao lado de cada item representam o grau de dificuldade que você teve ao fazer aquela atividade. O número zero representa "Sem dificuldade" e o número dez representa "Não conseguiu fazer". Por favor, indique o número que melhor descreve quanta dificuldade você teve para fazer cada uma das atividades durante a semana passada.

Se você não teve a oportunidade de fazer uma das atividades na semana passada, por favor, tente estimar qual número você daria para sua dificuldade.

Durante a semana passada, qual o grau de dificuldade que você teve para:		
1. Lavar seu cabelo com o braço afetado?	()NA	Sem dificuldade 0 1 2 3 4 5 6 7 8 9 10 Não conseguiu fazer
2. Lavar suas costas com o braço afetado?	()NA	Sem dificuldade 0 1 2 3 4 5 6 7 8 9 10 Não conseguiu fazer
3. Vestir uma camiseta ou blusa pela cabeça?	()NA	Sem dificuldade 0 1 2 3 4 5 6 7 8 9 10 Não conseguiu fazer
4. Vestir uma camisa que abotoa na frente?	()NA	Sem dificuldade 0 1 2 3 4 5 6 7 8 9 10 Não conseguiu fazer
5. Vestir suas calças?	()NA	Sem dificuldade 0 1 2 3 4 5 6 7 8 9 10 Não conseguiu fazer
6. Colocar algo em uma prateleira alta com o braço afetado?	()NA	Sem dificuldade 0 1 2 3 4 5 6 7 8 9 10 Não conseguiu fazer
7. Carregar um objeto pesado de 5kg (saco grande de arroz) com o braço afetado?	()NA	Sem dificuldade 0 1 2 3 4 5 6 7 8 9 10 Não conseguiu fazer
8. Retirar algo de seu bolso de trás com o braço afetado?	()NA	Sem dificuldade 0 1 2 3 4 5 6 7 8 9 10 Não conseguiu fazer

Total _____/possível _____ x 100 = _____

Escala de Dor

Os números ao lado de cada item representam quanta dor você sente em cada situação. O número zero representa "Sem dor" e o número dez representa "A pior dor". Por favor, indique o número que melhor descreve quanta dor você sentiu durante a semana passada em cada uma das seguintes situações.

Se você não teve a oportunidade de fazer uma das atividades na semana passada, por favor, tente estimar qual número você daria para sua dor.

1. Qual a intensidade da sua dor quando foi a pior na semana passada?		Sem dor 0 1 2 3 4 5 6 7 8 9 10 Pior dor
Durante a semana passada, qual a gravidade da sua dor:		
2. Quando se deitou em cima do braço afetado?	()NA	Sem dor 0 1 2 3 4 5 6 7 8 9 10 Pior dor
3. Quando tentou pegar algo em uma prateleira alta com o braço afetado?	()NA	Sem dor 0 1 2 3 4 5 6 7 8 9 10 Pior dor
4. Quando tentou tocar a parte de trás do pescoço com o braço afetado?	()NA	Sem dor 0 1 2 3 4 5 6 7 8 9 10 Pior dor
5. Quando tentou empurrar algo com o braço afetado?	()NA	Sem dor 0 1 2 3 4 5 6 7 8 9 10 Pior dor

Total _____/possível _____ x 100 = _____

PONTUAÇÃO TOTAL DO QUESTIONÁRIO: