Translation and validation of the Simplified Psoriasis Index (SPI) into Brazilian Portuguese*

Marina Resener de Morais[1], Gladys Aires Martins[2], Ricardo Romiti[3], Renata Elise Tonoli[1], André Vicente Esteves Carvalho[4]

DOI: http://dx.doi.org/10.1590/abd1806-4841.20186477

Abstract: Background: The Simplified Psoriasis Index is a tool that assesses the current severity, psychosocial impact, past history and interventions in patients with psoriasis through separate components. Two versions are available, one in which the current severity of the disease is evaluated by the patient themselves and another by the physician.
Objectives: Translate the Simplified Psoriasis Index into Brazilian Portuguese and verify its validity.
Methods: The study was conducted in two stages; the first stage was the translation of the instrument; the second stage was the instrument´s validation.
Results: We evaluated 62 patients from Complexo Hospitalar Santa Casa de Porto Alegre and Hospital Universitário de Brasília. The Simplified Psoriasis Index translated into Portuguese showed high internal consistency (Cronbach test 0.68).
Study limitations: Some individuals, because of poor education, might not understand some questions of the Simplified Psoriasis Index.
Conclusions: The Brazilian Portuguese version of the Simplified Psoriasis Index was validated for our population and can be recommended as a reliable instrument to assess the patients with psoriasis.
Keywords: Indicators of quality of life; Psoriasis; Quality of life

INTRODUCTION

Psoriasis is a chronic inflammatory systemic condition that affects the skin and joints. It is associated to physical and psychological morbidity of patients.[1] The evaluation of its extent and severity is based in the evaluation of signs and symptoms of the disease. The most used index for this purpose is the PASI (Psoriasis Area and Severity Index), which estimates the body surface area as well as the clinical presentation of psoriasis through a physical examination performed by the dermatologist.[1] However, this tool not always reflects the impact of the disease in the life of patients.[2,3] In order to complement the evaluation of these patients, the DLQI (Dermatology Life Quality Index), frequently used in the evaluation of dermatologic disease, can also be used.[4,5] This index aids in cases where there is marked improvement in the extent of the disease and little changes in the quality of life after treatment because the patient remains with lesions on visible areas such as the hands.[1]

Received 20 September 2016.
Accepted 18 July 2017.
* Work conducted at Complexo Hospitalar Santa Casa de Porto Alegre, Porto Alegre (RS), Brazil; Hospital Universitário de Brasília, Universidade de Brasília, Brasília (DF), Brazil.
Financial support: None.
Conflict of interest: None.

1 Outpatient Clinic of Dermatology, Complexo Hospitalar Santa Casa de Porto Alegre, Porto Alegre (RS), Brazil.
2 Outpatient Clinic of Psoriasis, Hospital Universitário de Brasília, Universidade de Brasília, Brasília (DF), Brazil.
3 Outpatient Clinic of Psoriasis, Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo (SP), Brazil.
4 Outpatient Clinic of Psoriasis, Hospital Moinhos de Vento de Porto Alegre, Porto Alegre (RS), Brazil.

Mailing Address:
Marina Resener de Morais
E-mail: mariresener@hotmail.com

The accurate identification of disease severity is crucial for the adequate choice of the available therapies and follow-up of therapeutic responses.[1] A new was of assessing patients with psoriasis is the Simplified Psoriasis Index (SPI), which encompasses physical and psychosocial involvement, past history and interventions that make the follow-up more thorough. The index was developed in the United Kingdom and has already been validated for the English language. It is easy to use and can help better identifying the severity and in the management of patients.[6,7]

The objective of our study is to translate into Brazilian Portuguese and validate the Simplified Psoriasis Index in our population.

METHODS

Original questionnaires already validated in the English language were sent by the author who also authorized its use for validation in Brazilian Portuguese (Chart 1). A prospective study through interviews was performed, with data collected between July and September 2015 in the outpatient clinic of psoriasis of the Complexo Hospitalar Santa Casa de Porto Alegre and Hospital Universitário de Brasília. All patients signed a consent form. Pediatric patients, illiterates and/or unable to fill out the form by themselves were excluded from the study. Calculation of the sample was not performed, and consecutive patients seen at the outpatient clinic of psoriasis were included.

The questionnaire used was the Simplified Psoriasis Index. The instrument was translated into Brazilian Portuguese and then back to English (translation/back translation). The final document translated into English from Portuguese was sent to the author, who evaluated the results.

The questionnaire has two versions: one completed by the physician (proSPI) and the other by the patient (saSPI) (Charts 2 and 3). Both differ only by the language, which is simplified for the patients. The SPI is divided into three components: the first corresponds to the current severity of the disease; the second evaluates the psychosocial impact of the disease; and the third shows the past history and interventions performed. Besides the questionnaire, the patients were submitted to general physical examination and dermatologic evaluation. Statistical analysis was performed using Bartlett's sphericity test, verifying if the analysis was adequate. Kaiser-Meyer-Olkin test was performed to evaluate the consistency of the sample. Internal validation was analyzed with Cronbach's alpha, and the correlation between PASI and proSPi and saSPI, with Spearman's coefficient.

Our study's limitation was due to the poor education of some patients who had difficulties filling out the questionnaire.

RESULTS

the sample included 62, 31 males (50%) and 31 females (50%). Age ranged from 42 to 59 years and PASI median was 4.3, with minimum score of 2.3 and maximum of 7.2. According to the PASI, the majority of patients were classified as mild psoriasis (67.74%), followed by severe psoriasis (17.74%) and moderate psoriasis (14.51%) (Table 1).

The validation of the instrument's construct was performed based on factorial analysis of the questions. For such, Bartlett's sphericity test was performed, which was statistically significant ($p<0.001$), indicating the variables are interrelated (the factorial analysis is adequate). The results for the validation test of the construct, known as Kaiser-Meyer-Olkin (KMO) test, are shown in table 2. KMO helps to verify consistency in the sample. If the value of KMO is inferior to 0.60, we can say the consistency did not occur.

The result of the validation of internal consistency was performed with the statistics of Cronbach's alpha. The expected value of Cronbach's coefficient should be superior to 0.7. However, since they are scales with less than 10 items (in this case, six), values above 0.5 can be accepted. The results are shown for each subset and the total in table 3.

The correlation between SPI and PASI was performed with Spearman's rho (r), because it evaluates two ordinal and parametric variables. The test evaluates if there is a correlation, but not causality, and the results are between 0 and 1, being 1 a perfect linear correlation. The correlation coefficient between the patient's total SPI and the PASI was 0.66 ($p<0.001$), while the correlation coefficient between the physician's total SPI and the PASI was 0.79 ($p<0.001$), and the correlation coefficient between saSPI and proSPI, 0.83 ($p<0.001$). Measurements of the degree of correlation exist but, they are arbitrary and should be evaluated in the context and with caution. One of the most used categorizations of the degree of correlation determines that r above 0.90 is excellent; between 0.75 and 0.90 is good; between 0.50 and 0.74 is moderate; and below 0.50 is weak.

Properties of the test were explored, including sensitivity, specificity, positive and negative predictive values and accuracy. The sensitivity was defined as the proportion of individuals who the instrument classified as severe/moderate (true-positive) among those who were really that severe according to the gold-standard. Specificity was defined as the proportion of those classified by the test as mild (true-negative) among all those classified as mild according to the gold-standard. The positive predictive value was calculated as the proportion of positive tests as severe/moderate among the total of positive tests. The negative predictive value was calculated as the proportion of tests with negative results (mild) among the total of negative tests. The accuracy is the ability of the test in classifying correctly and was calculated as the sum of true-positives plus true-negatives divided by the total amount of tests. When the patients were stratified into two severity categories, mild and moderate/severe, proSPI sensitivity in relation to PASI was 33.3% whereas the specificity was 100%. The same values for saSPI were 33.3% and 85.7% for sensitivity and specificity, respectively (Table 4).

Cohen's Kappa coefficient was used to evaluate concordance between the tests in the three original categories (mild, moderate and severe), and the values of 0.42 ($p=1$) and 0.40 ($p=1.0$) were found for proSPI and saSPI, respectively.

DISCUSSION

The use of PASI as the evaluation method of psoriasis severity, although promoted through randomized clinical trials,[2] does not accurately reproduce the extent and severity of the lesions, nor does it take into consideration the impact of the disease on the patient's quality of life.[3] Patients with severe psoriasis can be well rep-

Chart 1: Original version of the Simplified psoriasis index, completed by physician and patient

Simplified Psoriasis Index

Date:

For completion by doctor or nurse

LABEL or Record no: Sex:

First name:

Surname:

PART 1A Circle the option which most closely describes the current **extent** of psoriasis in each body area

0	±	+

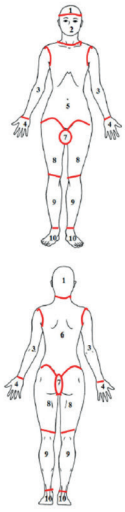
0	clear or minimal with no more than a few scattered thin plaques	(0)
±	obvious but still leaving plenty of normal skin	(0.5)
+	widespread and involving much of the affected area	(1.0) §

§ Please note that this is not the same as percentage body surface area (BSA) involvement: the extent score takes into account how dispersed the plaques are

		0	½	1
1	Scalp & hairline	0	±	+
2	Face, neck & ears	0	±	+
3	Arms & armpits	0	±	+
4	Hands, fingers & fingernails*	0	±	+
5	Chest & abdomen (stomach)	0	±	+
6	Back & shoulders	0	±	+
7	Anogenital area	0	±	+
8	Buttocks & thighs	0	±	+
9	Knees, lower legs & ankles	0	±	+
10	Feet, toes & toenails*	0	±	+

* score severe dystrophy of ≥ 2 nails as 0.5 and ≥ 6 nails as 1.0

Total extent score: maximum 10 points 1A



PART 1B Select the option which best describes the current **average severity** of psoriasis. This should take into account **all** affected areas identified above, not just the worst areas. Please refer to photographic severity key if available.

0	**Essentially clear:** with faint erythema *or* residual pigmentation only
1	**Mild: erythema** *and/or* **scale** with focal slight palpable thickening
2	**Mild-to-moderate: erythema** *and/or* **scale** *with* majority of affected skin palpably thickened
3	**Moderate: erythema** *and/or* **scale** *and/or* **skin thickening**
4	**Marked: erythema** *and/or* **scale** *and/or* **skin thickening**
5	**Intensely inflamed skin:** with or without pustulation

Average severity score : maximum 5 points 1B

Current extent and severity score = 1A x 1B (max. 50) 1A X 1B

Please turn over

PART 2 Ask patient to mark the line below in response to the question:

"How much is your psoriasis affecting you in your day-to-day life today?"

0 1 2 3 4 5 6 7 8 9 10

Guide: 0 = my psoriasis is not affecting me at all
5 = my psoriasis is affecting me quite a lot
10 = my psoriasis is affecting me very much (I could not imagine it affecting me more)

PART 3 Give **one point** for each true statement / for each therapy received (whether currently or in the past).	**Point**
About patient's psoriasis	
Patient has had psoriasis for more than ten years	
Patient has had psoriasis for more than 20 years (additional point)	
Patient has had erythrodermic or generalised pustular psoriasis	
Patient has been admitted to hospital for psoriasis	
About patient's treatment	
Patient has had at least one course of ultraviolet treatment or PUVA	
Patient has been treated with methotrexate (now or in past)	
Patient has been treated with acitretin or etretinate (now or in past)	
Patient has been treated with ciclosporin (now or in past)	
Patient has been treated with a "biological" drug (now or in past) Biological drugs include Remicade/infliximab; Enbrel/etanercept; Raptiva/efalizumab; Humira/adalimumab; Stelara/ustekinumab	
Patient has been treated with another systemic agent for psoriasis (now or in past) Name of treatment:	
	SUM

History and interventions score: maximum 10 points

Please enter scores for each part

S P I

SEVERITY (0-50) PSYCHOSOCIAL (0-10) INTERVENTION (0-10)

Simplified Psoriasis Index Self-Assessment Form

Date:

LABEL or Record no: Sex:

First name:

Surname:

Thank you for completing this questionnaire which will help us understand more about you and your psoriasis. If you need help with filling in the form please ask the nurse or researcher present. The questions are in three parts and tell us a little about how your psoriasis is now, how it is affecting you personally and how it has behaved in the past.

Please mark how you think your psoriasis is today

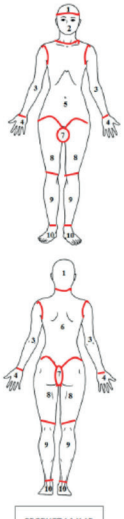
PART 1A For each of these 10 body areas please **circle** one choice which best describes your psoriasis **today**

0	±	+

0	clear or so minor that it does not bother me	(0)
±	obvious but still leaving plenty of normal skin	(0.5)
+	widespread and involving much of the affected area	(1.0)

1	Scalp & hairline	0	±	+
2	Face, neck & ears	0	±	+
3	Arms & armpits	0	±	+
4	Hands, fingers & fingernails*	0	±	+
5	Chest & abdomen (stomach)	0	±	+
6	Back & shoulders	0	±	+
7	Genital area and/or around anus (back passage)	0	±	+
8	Buttocks & thighs	0	±	+
9	Knees, lower legs & ankles	0	±	+
10	Feet, toes & toenails*	0	±	+

*PSORIASIS OF THE NAILS: even if the skin of the hands or feet is unaffected you can score ± for severe psoriasis of at least 2 and + for 6 or more finger or toenails — SUM



PART 1B Please **circle** whichever of these choices best describes the overall state of your psoriasis **today**. Your score should reflect the **average** of **all** of your psoriasis, not just the worst areas.

0	Clear or just slight redness or staining
1	Mild redness or scaling with no more than slight thickening
2	Definite redness, scaling or thickening
3	Moderately severe with obvious redness, scaling or thickening
4	Very red and inflamed, very scaly or very thick
5	Intensely inflamed skin with or without pustules (pus spots)

You may be given some photographic images to help you score your psoriasis.

PRODUCT 1A X 1B

please turn over

PART 2 Please make a mark on the line below to show us how much your psoriasis is affecting you in your day-to-day life **today**.

0 1 2 3 4 5 6 7 8 9 10

Guide: 0 = my psoriasis is not affecting me at all
5 = my psoriasis is affecting me quite a lot
10 = my psoriasis is affecting me very much (I could not imagine it affecting me more)

PART 3 Please tick each statement you think is true. Leave blank if you have not heard of the treatment or are not sure.	**Tick**
About your psoriasis	
I have had psoriasis for more than ten years	
I have had psoriasis for more than 20 years (additional point)	
I have had very inflamed psoriasis of **all** my skin (erythrodermic or pustular)	
I have been admitted to hospital for my psoriasis	
About your psoriasis treatment	
I have had at least one course of ultraviolet light treatment or PUVA	
I have been treated with methotrexate (now or in past)	
I have been treated with acitretin (Neotigason, etretinate) (now or in past)	
I have been treated with ciclosporin (Neoral) (now or in past)	
I have been treated with a "biological" drug given by injection or drip (now or in past) Biological drugs include Remicade/infliximab; Enbrel/etanercept; Raptiva/efalizumab; Humira/adalimumab; Stelara/ustekinumab	
I have been treated with another tablet/injection treatment for my psoriasis (now or in the past). If so, can you remember the name of the treatment? Name of treatment:	
	SUM

To be completed by doctor or nurse

PART 1 S PART 2 P PART 3 I

SEVERITY (0-50) PSYCHOSOCIAL (0-10) INTERVENTION (0-10)

Chart 2: Questionnaire completed by the physician (proSPI)

Simplified Psoriasis Index

Date:

For completion by doctor or nurse

LABEL or Record no: Sex:

First name:

Surname:

PART 1A Circle the option which most closely describes the current **extent** of psoriasis in each body area

0	±	+

0 clear or minimal with no more than a few scattered thin plaques (0)

± obvious but still leaving plenty of normal skin (0.5)

+ widespread and involving much of the affected area (1.0) §

§ Please note that this is not the same as percentage body surface area (BSA) involvement: the extent score takes into account how dispersed the plaques are

		0	½	1
1	Scalp & hairline	0	±	+
2	Face, neck & ears	0	±	+
3	Arms & armpits	0	±	+
4	Hands, fingers & fingernails*	0	±	+
5	Chest & abdomen (stomach)	0	±	+
6	Back & shoulders	0	±	+
7	Anogenital area	0	±	+
8	Buttocks & thighs	0	±	+
9	Knees, lower legs & ankles	0	±	+
10	Feet, toes & toenails*	0	±	+

* score severe dystrophy of ≥ 2 nails as 0.5 and ≥ 6 nails as 1.0

Total extent score: maximum 10 points 1A

PART 1B Select the option which best describes the current **average severity** of psoriasis. This should take into account **all** affected areas identified above, not just the worst areas. Please refer to photographic severity key if available.

0 **Essentially clear:** with faint erythema *or* residual pigmentation only

1 **Mild: erythema** *and/or* **scale** with focal slight palpable thickening

2 **Mild-to-moderate: erythema** *and/or* **scale** *with* majority of affected skin palpably thickened

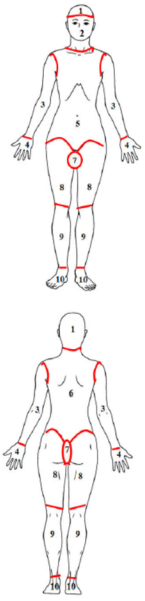
3 **Moderate: erythema** *and/or* **scale** *and/or* **skin thickening**

4 **Marked: erythema** *and/or* **scale** *and/or* **skin thickening**

5 **Intensely inflamed skin:** with or without pustulation

Average severity score : maximum 5 points 1B

Current extent and severity score = 1A x 1B (max. 50) 1A X 1B



Please turn over

PART 2 Ask patient to mark the line below in response to the question:

"How much is your psoriasis affecting you in your day-to-day life today?"

0 1 2 3 4 5 6 7 8 9 10

Guide: 0 = my psoriasis is not affecting me at all
5 = my psoriasis is affecting me quite a lot
10 = my psoriasis is affecting me very much (I could not imagine it affecting me more)

PART 3 Give **one point** for each true statement / for each therapy received (whether currently or in the past).	**Point**
About patient's psoriasis	
Patient has had psoriasis for more than ten years	
Patient has had psoriasis for more than 20 years (additional point)	
Patient has had erythrodermic or generalised pustular psoriasis	
Patient has been admitted to hospital for psoriasis	
About patient's treatment	
Patient has had at least one course of ultraviolet treatment or PUVA	
Patient has been treated with methotrexate (now or in past)	
Patient has been treated with acitretin or etretinate (now or in past)	
Patient has been treated with ciclosporin (now or in past)	
Patient has been treated with a "biological" drug (now or in past) Biological drugs include Remicade/infliximab; Enbrel/etanercept; Raptiva/efalizumab; Humira/adalimumab; Stelara/ustekinumab	
Patient has been treated with another systemic agent for psoriasis (now or in past) Name of treatment:	
	SUM

History and interventions score: maximum 10 points

Please enter scores for each part

S P I

SEVERITY (0-50) PSYCHOSOCIAL (0-10) INTERVENTION (0-10)

proSPI 221212

proSPI 221212

resented by the PASI when erythema, desquamation and induration are evaluated. However, individuals with mild psoriasis tend to be under-represented by the PASI, either in the severity assessment or in the assessment of the improvement of the lesions after treatment. Another clinical picture not well assessed by the PASI are patients with palmar and plantar, nail, genital and facial involvement, areas that, when affected, bring about enormous physical and psychological impact.

In the same fashion, indexes that only evaluate the impact of the disease in the quality of life can be of little help with the objective perception of improvement of the lesions, since patients with psoriasis have different perceptions of the disease. In other words, in the case of DLQI, two patients with the same type and severity of psoriasis can have very different indexes.

SPI is a holistic index that integrates the patient's and the physician's view. SPI evaluates the extent and severity of the disease as PASI does, and the psychosocial impact of the disease in a simpler way than DLQI, evaluating the extent, severity and impact of the disease and previous treatments. Some indexes as SPI have been proposed over the past few years and the indexes that evaluate the perspective of the patient in regard to their condition have been taken more into consideration[6] (patient related outcome), but few have been put into practice in specialized outpatient clinics. During the validation process for the English language[7], using Spearman's correlation, the authors found a correlation coefficient (r) between PASI and proSPI of 0.91, and of 0.70 between PASI and saSPI, whereas in the validation for the Portuguese language the values of 0.80 and 0.64 were found for proSPI and saSPI, respectively. The values of saSPI between the instrument in English and Brazilian Portuguese are classified as moderate correlation, whereas the values of proSPI between both instruments were close but categorized differently (good correlation of the instrument in Brazilian Portuguese, excellent correlation of the instrument in English). In any case, the correlation between PASI and both SPIs was positive for the Brazilian Portuguese version of the instrument.

We also observed with the study the little concordance as measured by Kappa between PASI, saSPI and proSPI when the category severity was analyzed. In this case, we reaffirm the main goal of this new tool: to better evaluate the impact of the disease and treatments. Patients with many lesions can present with less psychosocial impairment than others with lesions on the hands or genitals. Regarding the internal consistency of the construct, Bartlett's sphe-

Chart 3: Questionnaire completed by the patient (saSPI)

Simplified Psoriasis Index Self-Assessment Form

Date:

LABEL or Record no: Sex:

First name:

Surname:

Thank you for completing this questionnaire which will help us understand more about you and your psoriasis. If you need help with filling in the form please ask the nurse or researcher present. The questions are in three parts and tell us a little about how your psoriasis is now, how it is affecting you personally and how it has behaved in the past.

Please mark how you think your psoriasis is today

PART 1A For each of these 10 body areas please **circle** one choice which best describes your psoriasis **today**

0 ± +

0 clear or so minor that it does not bother me (0)
± obvious but still leaving plenty of normal skin (0.5)
+ widespread and involving much of the affected area (1.0)

		0	±	+
1	Scalp & hairline	0	±	+
2	Face, neck & ears	0	±	+
3	Arms & armpits	0	±	+
4	Hands, fingers & fingernails*	0	±	+
5	Chest & abdomen (stomach)	0	±	+
6	Back & shoulders	0	±	+
7	Genital area and/or around anus (back passage)	0	±	+
8	Buttocks & thighs	0	±	+
9	Knees, lower legs & ankles	0	±	+
10	Feet, toes & toenails*	0	±	+

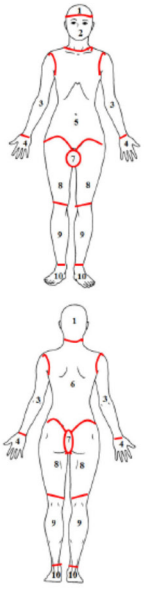
*PSORIASIS OF THE NAILS: even if the skin of the hands or feet is unaffected you can score ± for severe psoriasis of at least 2 and + for 6 or more finger or toenails

SUM

PART 1B Please **circle** whichever of these choices best describes the overall state of your psoriasis **today**. Your score should reflect the **average** of **all** of your psoriasis, not just the worst areas.

0 Clear or just slight redness or staining
1 Mild redness or scaling with no more than slight thickening
2 Definite redness, scaling or thickening
3 Moderately severe with obvious redness, scaling or thickening
4 Very red and inflamed, very scaly or very thick
5 Intensely inflamed skin with or without pustules (pus spots)

You may be given some photographic images to help you score your psoriasis.



PRODUCT 1A X 1B

please turn over

saSPI 301212

PART 2 Ask patient to mark the line below in response to the question:

"How much is your psoriasis affecting you in your day-to-day life today?"

0 1 2 3 4 5 6 7 8 9 10

Guide: 0 = my psoriasis is not affecting me at all
5 = my psoriasis is affecting me quite a lot
10 = my psoriasis is affecting me very much (I could not imagine it affecting me more)

PART 3 Give **one point** for each true statement / for each therapy received (whether currently or in the past).	Point
About patient's psoriasis	
Patient has had psoriasis for more than ten years	
Patient has had psoriasis for more than 20 years (additional point)	
Patient has had erythrodermic or generalised pustular psoriasis	
Patient has been admitted to hospital for psoriasis	
About patient's treatment	
Patient has had at least one course of ultraviolet treatment or PUVA	
Patient has been treated with methotrexate (now or in past)	
Patient has been treated with acitretin or etretinate (now or in past)	
Patient has been treated with ciclosporin (now or in past)	
Patient has been treated with a "biological" drug (now or in past) Biological drugs include Remicade/infliximab; Enbrel/etanercept; Raptiva/efalizumab; Humira/adalimumab; Stelara/ustekinumab	
Patient has been treated with another systemic agent for psoriasis (now or in past) Name of treatment:	
	SUM

History and interventions score: maximum 10 points

Please enter scores for each part

S P I

SEVERITY (0-50) PSYCHOSOCIAL (0-10) INTERVENTION (0-10)

proSPI 221212

Table 1: Median of the characteristics studied in psoriasis patients

Characteristics/Subsets	Median	Interquartile interval
Age	51	42-59
PASI	4,3	2.3-7.2
saSPI subset 1	5	3-10
saSPI subset 2	5	1-8
saSPI subset 3	3	2-5
proSPI subset 1	4	1.5-8
proSPI subset 2	5	2-7
proSPI subset 3	3.5	2-5

Table 2: Values of Kaiser-Meyer-Olkin (KMO) test

Subsets	KMO
saSPI: physical aspect of the lesions	0.75
saSPI: psychosocial influence	0.68
saSPI: previous and current treatments	0.54
proSPI: physical aspect of the lesions	0.69
proSPI: psychosocial influence	0.69
proSPI: previous and current treatments	0.57
Total	0.65

Table 3: Validation of the internal consistency with Cronbach's alpha analysis

Subset	Alpha
saSPI: physical aspect of the lesions	0.49
saSPI: psychosocial influence	0.58
saSPI: previous and current treatments	0.73
proSPI: physical aspect of the lesions	0.54
proSPI: psychosocial influence	0.58
proSPI: previous and current treatments	0.73
Total	0.68

Table 4: Characteristics of Simplified Psoriasis Index

	proSPI	saSPI
Sensitivity	100%	85.7%
Specificity	33.3%	33.3%
Positive predictive value	41.2%	15.0%
Negative predictive value	41.5%	94.4%
Accuracy	41.4%	39.6%

ricity test was statistically significant (p<0.001) and KMO index demonstrated that, being superior to 0.60, there was intercorrelation between the variables in the instrument in Brazilian Portuguese. Total Cronbach's alpha, that also evaluates the internal consistency of the instrument, was 0.68, with a cut-off for good internal consistency above 0.50 in scales with less than 10 items, such as the case in question. Kappa's concordance index between proSPI or saSPI with PASI (gold-standard), using categorization of the patients as mild, moderate and severe (according to PASI), was 0.40 and 0.41 for saSPI and proSPI, respectively, with p=1. This demonstrates little concordance between PASI and both SPIs by using this categorization, what to a certain degree was expected, since SPI is a patient/physician integrated index and gives more importance to specific areas, while PASI is an objective index that evaluates the extent of the disease with no specific important areas. Thus, patients with genital, nail or face psoriasis, that can be classified as severe with SPI, would be classified as mild with PASI.

CONCLUSION

Integrated indexes such as SPI, made by a component professional/physician and a patient component, can provide a better assessment of the severity of psoriasis. The ability of evaluating the psychological impact of psoriasis and of giving more importance to specific body regions such as genitals, nails and face, makes SPI a more thorough index than PASI. The results seen with this validation are similar to the results seen by Chularojanamontri *et al*[5] in the validation of the original instrument in English. Using SPI in outpatient clinics specialized in the treatment of psoriasis and the use of the instrument in randomized clinical trials could provide more information on the actual value of the instrument in assessing the severity of the disease and for treatment follow-up. ❑

REFERENCES

1. Marks R, Barton SP, Shuttleworth D, Finlay AY. Assessment of disease progress in psoriasis. Arch Dermatol. 1989;125:235-40.
2. Oji V, Luger TA. The skin in psoriasis: assessment and challenges. Clin Exp Rheumatol. 2015;33:S14-9.
3. Krueger G, Koo J, Lebwohl M, Menter A, Stern RS, Rolstad T. The impact of psoriasis on quality of life: results of a 1998 National Psoriasis Foundation patient-membership survey. Arch Dermatol. 2001;137:280-4.
4. Finlay AY. Quality of life measurement in dermatology: a practical guide. Br J Dermatol. 1997;136:305-14.
5. Finlay AY, Khan GK. Dermatology Life Quality Index (DLQI)--a simple practical measure for routine clinical use. Clin Exp Dermatol. 1994;19:210-6.
6. Chularojanamontri L, Griffiths CEM, Chalmers RJG. Responsiveness to change and interpretability of the simplified psoriasis index. J Invest Dermatol. 2014;134:351-8.
7. Chularojanamontri L, Griffiths CEM, Chalmers RJG. The Simplified Psoriasis Index (SPI): a practical tool for assessing psoriasis. J Invest Dermatol. 2013;133:1956-62.

AUTHORS' CONTRIBUTIONS		
Marina Resener de Morais	ORCID	0000-0003-4218-4461
Approval of the final version of the manuscript, Elaboration and writing of the manuscript, Obtaining, analyzing and interpreting the data, Critical review of the literature, Critical review of the manuscript		
Gladys Aires Martins	ORCID	0000-0001-9913-2238
Conception and planning of the study, Obtaining, analyzing and interpreting the data, Intellectual participation in propaedeutic and/or therapeutic conduct of the cases studied		
Ricardo Romiti	ORCID	0000-0003-0165-3831
Conception and planning of the study, Intellectual participation in propaedeutic and/or therapeutic conduct of the cases studied		
Renata Elise Tonoli	ORCID	0000-0001-8619-0412
Obtaining, analyzing and interpreting the data		
André Vicente Esteves Carvalho	ORCID	0000-0002-0407-538X
Approval of the final version of the manuscript, Conception and planning of the study, Elaboration and writing of the manuscript, Obtaining, analyzing and interpreting the data, Effective participation in research orientation, Intellectual participation in propaedeutic and/or therapeutic conduct of the cases studied, Critical review of the literature, Critical review of the manuscript		

How to cite this article: Morais MR, Martins GA, Romiti R, Tonoli RE, Carvalho AVE. Translation and validation of the Simplified Psoriasis Index (SPI) into Brazilian Portuguese. An Bras Dermatol. 2018;93(6):813-8.