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Cross-cultural adaptation and validation of the NASS outcomes instrument in Spanish patients with low back pain

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Abstract *Objectives:* The aim of the study was to evaluate validity, reliability, responsiveness and practicality of the NASS-AAOS (North American Spine Society—American Academy of Orthopaedic Surgeons) questionnaire in patients with low back pain. *Methods:* The sample included 70 patients with herniated disk, stenosis, chronic low back pain of unknown etiology or acute low back pain. They were assessed twice before treatment (test–retest) and a third measure six months to one year afterwards. *Results:* The mean time of administration was 24 and 20 min for the test and post-treatment evaluation, respectively. Cronbach's alpha coefficient was between 0.78 and 0.92 on the baseline test and 0.90 or higher on the post-treatment evaluation. The test–retest reproducibility was 0.95 (0.91–0.98) for 'neurological symptoms', 0.82 (0.63–0.91) for 'pain/disability' and

0.63 (0.25–0.82) for 'expectations'. The associations with other measures and clinical criteria were generally moderate to high and in the expected direction. The effect size for 'pain/disability' in combination with 'neurological symptoms' was 2.02 for patients who improved versus an effect of –0.09 in patients who were stable between test and retest; the area under the curve on this joint scale was 0.81 (0.69–0.90). *Conclusions:* The instrument is valid, sensitive to clinical changes and reliable for comparisons between groups, but further study is needed for its application in monitoring individual patients.

Keywords Low back pain · Questionnaire · Validity · Reliability · Responsiveness

Introduction

Back pain is frequently a chronic or recurrent problem, with treatment focusing on pain alleviation and functional recovery. Thus, measures of symptom severity and functional capacity need to be added to the usual clinical and radiographic measures. It has traditionally been believed that these "soft" measures are less reliable than the classical physiological and radiological parameters. Several studies have shown that subjective data can be as reproducible [6] as the traditionally known "hard"

measures, which are mainly characterized by their high reproducibility. Furthermore, subjective data can reveal important dimensions to help understand patients, their disease, symptoms and the potential for treatment.

There are a variety of instruments to measure general functional status, specific instruments and pain measures. Among the most widely used and validated general health measures is the SF-36 [19, 33]; its ability to measure outcomes in patients with back pain has also been measured [1, 25, 30]. However, some authors [6, 25], including those who developed the SF-36, recom-

mend the use of specific health status measures in combination with general measures. A specific measure for patients with back pain has certain advantages: it is more sensitive to small clinical changes occurring over short periods, it can discriminate between different health levels in the most severely affected patients, and it will contain questions that are more relevant for clinicians and more familiar and comprehensible to patients. The 'Roland-Morris Questionnaire' [3, 24] and the 'Oswestry Disability Score' [3, 13, 18, 27, 30] are two of the instruments specifically designed to measure health status in patients with low back pain which have been the object of validation in the largest number of studies.

The Lumbar Spine Questionnaire designed by the American Academy of Orthopaedic Surgeons/North American Spine Society (NASS) includes a group of items on comorbidity, general well-being (SF-36), items on symptoms of pain and nerve compression, functional capacity related with the back problem (modified Oswestry), and occupational status or Worker's Compensation status. It also includes two important concepts in outcomes measures: patient expectations and satisfaction with the results of treatment. Daltroy et al. evaluated its properties and showed it to be a valid and reliable instrument [5]. Italian [21] and German [26] translations have also been published. Sensitivity to significant clinical change, an important characteristic of measurement instruments [11], has been evaluated only in the German version, in a study performed in patients requiring rehabilitation. The questionnaire has had good patient acceptability [5, 21].

The purpose of the present work was to evaluate: (1) the linguistic equivalence and (2) the measurement properties of the Spanish version of the NASS questionnaire, version 2.0. Specifically, we studied: (a) the questionnaire's practical characteristics, such as its comprehensibility, acceptability and the time needed to complete it; (b) its factorial structure, that is, the conceptual domains or constructs that are evaluated and the relation among them; (c) the reliability of the scales, including their internal consistency and the test-retest reproducibility; (d) the construct validity or ability of the scale to measure the dimension that we really want to know; and (e) the capacity of the NASS scales to detect small but clinically important changes before and after treatment.

Materials and methods

The NASS Lumbar Spine Questionnaire, version 2.0, includes items on 'comorbidity', the SF-36 health questionnaire, socio-demographic characteristics and specific items for patients with low back pain:

- (a) 'Lumbar questionnaire': Includes eight new items, four on frequency and four on intensity of low back

or buttock pain, leg pain, numbness or tingling in the leg or foot, and weakness in the leg or foot. There are six categories of responses, ranging from 'None of the time' to 'All of the time' for frequency and from 'Not at all bothersome' to 'Extremely bothersome' for intensity. The questionnaire also includes a measure of functional restriction due to pain based on the Oswestry Disability Index, with some modifications: mainly, that section I on 'pain intensity' has been eliminated, and the section on 'personal care' has been limited to the function of 'dressing'. The other functions are maintained: lifting objects, walking, sitting, getting up, social life, travelling and sexual relations. Each section has six response categories, ranging from being able to perform the activity without any pain to total impossibility due to pain.

- (b) Patient expectations: Includes six items on the expected results of treatment with regard to alleviation of symptoms, improvement in performing daily activities at home, sleeping better, returning to work, doing physical exercise and leisure activities and preventing disability. These items are measured on a Likert scale with five categories ranging from 'Not at all likely' to 'Extremely likely'.
- (c) Satisfaction: The follow-up questionnaire measures whether expectations have been met (except for 'preventing disability'), measured in the same way as in the baseline questionnaire, the degree of satisfaction with the back clinic (post-treatment), and whether, if the occasion arose, the person would choose the same treatment for his or her back problem. The Employment History module validated by Daltroy et al. [5] is included in a separate module and was not validated in the present study.

Translation

For the SF-36, we used the standard validated Spanish version published by the Medical Outcomes Trust [20]. In the rest of the questionnaire, we used the method of "translation-back translation" [2, 10]. The specific steps followed were: (1) Translation by two independent Spanish translators, who are both bilingual. The two versions were compared until consensus was reached. (2) This version was translated into English (back translation) by two American translators, resulting in two separate and independent translations. (3) Comparison of the two versions and the original version by a multidisciplinary review committee (members of the research team and the persons responsible for steps 1 and 2). The annex shows the Spanish version of the new NASS items referring to pain, neurogenic symptoms and function, expectations and satisfaction.

To evaluate whether the questionnaire was easy to understand, 20 Spanish speaking patients from the Pain Unit who had low back pain were asked to fill out the complete Spanish version.

Patients

The study of psychometric properties included 70 outpatients seen in the Spine Unit of the Department of Orthopedics, in the Department of Rheumatology and in the Department of Occupational Health in a tertiary hospital during the period September 1998–April 1999. The diagnoses included were *herniated disk*, *spinal stenosis*, *acute low back pain*, defined as pain that is radiating or non-radiating but without neurologic signs, intermittent, and which remits in a few days with or without treatment, and *chronic low back pain of unknown etiology*, defined as daily pain lasting more than six months, the origin of which cannot be precisely determined. The diagnoses of hernia and stenosis were confirmed by simple X-ray and/or myelography and/or MRI.

Data design and collection

The questionnaire was first administered to 70 individuals. The patients with surgical treatment were given appointments one to two weeks later and prior to the intervention, in order to answer the questionnaire a second time (retest). Between six months and one year after receiving treatment, the questionnaire was administered for the third time (post-treatment evaluation). The questionnaire was filled out during a personal interview.

Baseline measure The following instruments were administered: (1) the NASS instrument; (2) three visual analog scales (VAS) to measure the frequency of pain, the intensity of symptoms and a third scale to measure how much pain had affected daily activities. All three scales refer to the previous week; and (3) clinical characteristics of the patient.

Retest One or two weeks after the baseline measure, the NASS instrument was administered again to a subsample of clinically stable surgical patients to measure test-retest reliability. A transition question was included to determine if the low back pain symptoms had changed since the questionnaire was administered the first time: “*In comparison to when you answered this questionnaire last week, do you think that your back problem is: better, worse, or the same?*” For the test–retest evaluation, patients whose back problem had changed were excluded.

Post-treatment evaluation Between six months and one year after treatment all the scales of the baseline

measure were repeated. The follow-up NASS questionnaire included an item on the patient’s evaluation of outcomes and the items referring to expectations were replaced by items referring to satisfaction.

Methods of analysis

Factor analysis and reliability We performed a factor analysis of correlations to identify the underlying constructs: to obtain estimates of the common factors we used the principal-axis factoring method (PAF) and oblique rotation (Oblimin). We calculated the internal consistency (for the test and post-treatment evaluation) measured by Cronbach’s alpha and the test–retest reproducibility of the scales and subscales measured by the intraclass correlation coefficient (ICC). Persons with stable back problems were selected by the previously described transition question and the test–retest interval ranged between one and two weeks.

Validity Cross-sectional construct validity was evaluated by measuring associations established a priori between NASS scales and the VAS pain scales, the SF-36 and satisfaction with treatment. Pearson’s correlation coefficient was used to measure the association between scales. To evaluate the longitudinal construct validity we measured the correlations between the change in NASS scales and the change in SF-36, VAS and Lasegue.

Sensitivity to change This is defined as the ability to detect true changes in patient status beyond the random variability that is expected in repeat measures of any sort [9]. The parameter used to estimate it was the effect size for each scale, calculated as the mean change in score divided by the standard deviation of the initial scores [17, 31]. A receiver operating characteristic (ROC) curve analysis was also made [12, 14]. This method measures the ability of the NASS scales to discriminate correctly between individuals who improve and those who do not. The external criterion used was one of the items that measure outcome: “change in back problems as compared with before treatment”.

The statistical analysis was made using SPSS for Windows [29] except in the case of the ROC curve analysis for which Medcalc was used [27].

Results

Between 7 and 15 days after the baseline measure and at the time of the preoperative study, the 45 surgical patients were interviewed a second time (retest), and the 34 who said their back problem was the same were selected. The post-treatment evaluation were made in 60 persons.

The mean age of the 70 participants was 51 years $\pm$ 14.6, 47% were men, 71% were married and 93% lived with someone who could help them. About 44% had suffered some disease that restricted their activities and 24% were not working because of their back problems. The diagnosis was herniated disk for 47.8%, acute low back pain for 26.1%, spinal stenosis for 23.2%, and chronic low back pain syndrome for 2.9%. Table 1 describes the clinical characteristics of these patients.

The mean time it took to administer the complete questionnaire was 24 min at baseline and 20 min at follow-up. Descriptive statistics for each scale are presented in Table 2.

Factor analysis and scoring

The new NASS scales are (annex):

1. Pain and disability (P/D): We excluded one item—sleeping problems—due to its poor communality and poor item-total correlation (0.2), as well as the item on sexual activity because of the high number of non-responses. The scale is generated by

summing items 38, 42, 46 to 50, 52 and 53; a higher score indicates greater pain and more functional limitation.

2. Neurological symptoms (neuro): it is generated by summing items 39–41 and 43–45. A higher score indicates more frequent and intense neurologic symptoms.
3. Expectations: it is generated by summing items 31–35a. A higher score means greater expectations from treatment.
4. Satisfaction with outcomes: item 36a “satisfaction with treatment” was excluded (“*If you could do it over again, would you choose the same treatment?*”) due to its poor communality and low item-total correlation. The scale is generated by summing items 31–36 of the follow-up questionnaire. A higher score indicates expectations met to a greater degree and more satisfaction with the current situation.

SF-36 In accordance with the scoring manual for the Spanish version [20] the eight subscales were created, as well as the two global indices or summary measures [32]: summary measure of the physical component, SF36_pcs (which includes physical function, physical role, body pain and general health) and of the mental component, SF36_mcs (which includes mental health, emotional role, vitality and social function). General health was excluded from the SF36_pcs index due to the poor item-total correlation of its items with the rest of the scale.

Table 1 Demographic and clinical characteristics of participants ($n = 70$)

	Percent
Diagnosis	
Common low-back pain	26.9
Sciatica from herniated disk	46.3
Spinal stenosis	23.9
Idiopathic chronic low back pain	3.0
Treatment	
Surgical	
Discectomy	39.1
Arthrodesis	8.7
Rhyzolysis	1.4
Laminectomy	15.9
Medical and/or physical therapy	34.8
Number of diseases suffered	
1 or more	78.6
Limitation on activities	44.3
Occupational status	
Working	61.0
Not working due to back problem	16.9
Not applicable (unemployed, retired)	22.1
Previous back surgery	10.1
Type of pain	
Low back	21.7
Low back radiating to thigh	26.1
Low back radiating to calf	51.4
Temporal pattern	
Acute	27.5
Recurrent	42.0
Chronic	30.4
Lasegue: $< = 60^\circ$	44.1
Motor weakness	31.3
Sensory changes	30.3
Mean duration of episode	12 weeks $\pm$ 13

Reliability

In the pre-test, the internal consistency of the three specific NASS scales was 0.78 (‘pain/disability’), 0.87 (‘neuro’) and 0.92 (‘expectations’) (Table 3). It increased considerably on the post-treatment evaluation, reaching 0.90 or more in all cases. The test-retest reproducibility was measured in the 34 patients who, in the retest, self-rated their back problems as the same. The intraclass correlation coefficient was 0.82 for ‘pain/disability’, 0.95 for ‘neuro’ and 0.63 for ‘expectations’.

Validity

Table 4 shows the correlation of NASS scales with the two summary scales of the SF-36 and the three VAS pain scales. Significant correlations in the expected direction are seen except in the case of ‘Expectations’; the magnitude of the correlations increase in the post-treatment evaluation. The evaluation of the longitudinal construct validity is presented in table 5. The change in ‘pain/disability’ correlates significantly with the change in SF-36, VAS, and, to a lesser extent, with Lasegue. The change in ‘neuro’ is associated with the change in SF-36, but is not associated with Lasegue.

Table 2 Descriptive statistics for each scale: mean and prevalence of floor and ceiling effects

	Number of items	Range (best–worst)	Mean $\pm$ SD	Floor effect (%)	Ceiling effect (%)
P/D	9	9–54	32.7 $\pm$ 8.3	0	1.4
Neuro	6	6–36	18.3 $\pm$ 7.7	10.1	0
Expectations	6	30–6	23.9 $\pm$ 5.4	0	23.5
Satisfaction	6	30–6	–	–	–
SF36_pc	16	49–16	27.6 $\pm$ 6.5	4.3	0
SF36_mc	14	70–14	43.5 $\pm$ 6.5	1.4	0

Floor effect or lowest possible score; ceiling effect or highest possible score, *P/D* pain/disability, *Neuro* neurological symptoms, *SF36_pc* SF36_physical component, *SF36_mc* SF36_mental component

Table 3 Reliability: internal consistency and test-retest reproducibility

	Internal consistency (Cronbach's α)		Test–retest reproducibility (ICC)
	Baseline test	Post-test	
P/D	0.78	0.90	0.82 (0.63–0.91)
Neuro	0.87	0.91	0.95 (0.91–0.98)
Expectations	0.92	–	0.63 (0.25–0.82)
Satisfaction	–	0.95	–
SF36_pc	0.87	0.94	0.86 (0.71–0.93)
SF36_mc	0.87	0.93	0.91 (0.83–0.96)

P/D pain/disability, *Neuro* neurological symptoms, *SF36_pc* SF36_physical component, *SF36_mc* SF36_mental component, *ICC* intraclass correlation coefficient

Responsiveness

Table 6 shows the ROC area for the change in the scales for 'pain/disability', 'neuro', the two combined, and SF36_pcs. The external criterion used was self-rated change in back problem, measured in two categories: "better" and "same or worse." The power of the 'pain/disability' and 'neuro' scales to discriminate between those who improve and those who do not increases when the two are grouped together, reaching an area of 0.81. We also show the change, estimated by the "effect size," occurring in patients who improve after treatment, as compared to patients whose condition does not change between test and retest. The effect size represents the

change in scores, transformed to standard measurement units and thus makes it possible to compare scales. Overall, large effects are seen in patients who say they are better; 'pain/disability + neuro' has the best sensitivity to change (2.02). In the stable group, as expected, the effects are close to 0, reflecting an absence of effect.

Discussion

This work describes how the NASS questionnaire was adapted to Spanish and validated as an instrument to measure outcomes in low back disease. All items were retained after the language adaptation. The instrument had good acceptability and took 20 to 25 min to administer; in some cases (older persons or those with low educational level), a personal interview by a sufficiently trained interviewer is required.

Two items—sleeping and sexual relations—were excluded from the pain and disability scale. Florez et al. [8], in the Spanish validation of the Oswestry, also emphasize the high number of non responses to the items on sexual activity and sleeping. They note that the options for response to the item on sleeping are inappropriately scaled, which could affect the degree of internal consistency. Despite the similar performance of the two items in these two samples, they appear to have performed well in studies carried out in other contexts [5, 21, 26]. Thus, we believe that these items should initially be retained in the questionnaire unless an

Table 4 Cross-sectional construct validity: correlation of NASS scales with the SF-36, VAS and Satisfaction with treatment

	SF36_pcs	SF36_mcs	VAS_f	VAS_i	VAS_l	Satisfaction with treatment
Baseline test						
P/D	–0.82**	–0.37**	0.63**	0.51**	0.46**	
Neuro	–0.24*	–0.36**	0.20	0.30*	0.34**	
Expectations	0.03	0.02	0.01	–0.07	0.16	
Post-treatment						
P/D	–0.83**	–0.54**	0.65**	0.7**	0.63**	–0.28*
Neuro	–0.67**	–0.5**	0.45**	0.43**	0.46**	–0.18
Satisfaction	0.69**	0.45**	–0.5**	–0.51**	–0.4**	0.35**

P/D pain/disability, *Neuro* neurological symptoms, *VAS_f* frequency, *VAS_i* intensity, *VAS_l* limitation of activity

* $p < 0.05$; ** $p < 0.005$

Table 5 Longitudinal construct validity: correlation between change in P/D and Neuro scales and change in other measures

	SF36_pcs	SF36_mcs	VAS_f	VAS_i	VAS_l	Lasegue	Perceived change
P/D	0.8**	0.5**	0.64**	0.5**	0.64**	0.28*	0.45**
Neuro	0.31*	0.46**	0.2	0.21	0.2	0.13	0.28*

P/D pain/disability, *Neuro* neurological symptoms, *VAS_f* frequency, *VAS_i* intensity, *VAS_l* limitation of activity

* $p < 0.05$; ** $p < 0.005$

analysis of the items suggests the contrary. Nor did we include item 36a in the satisfaction scale, given the weak correlation of this item with the rest of the scale as described by Daltroy et al. These authors used the item as a dichotomous variable (yes/no) and proposed that the response categories be expanded to five (from definitely not to definitely yes) to increase the correlation and ensure its inclusion in the satisfaction scale. We used five categories for this item and the correlation remained low, from which it can be deduced that treatment choice is influenced by other factors besides whether or not expectations are met or the recovery of functional ability. Nevertheless, we think that the item in and of itself can provide useful information which justifies keeping it in the questionnaire.

The distribution of the scores and the less than 15% floor and ceiling effects reflect the ability of the scale to measure the different levels of disease severity observed at the hospital level [28]. The commonly accepted minimum standards of reliability for applications at the individual level range from 0.9 to 0.95, both for internal consistency and for test-retest reliability; for group comparisons the recommended standard is 0.7 [18]. In our study, 'neuro' would reach the level required for use in individual patient monitoring whereas the wide confidence interval for 'pain/disability' does not permit any conclusion to be made. In comparison to validations carried out in other countries or other scales, we believe that, except for the expectations scale, the test-retest reliability coefficients are very good given the time interval between test and retest: 1–2 weeks vs 24 and 48 h in other versions [5, 21] or Spanish versions of other instruments [16]. In short intervals it is likely that recollection of the responses given on the initial test influenced the retest results [23]. The reproducibility is similar

to that obtained in the Spanish version of the Roland-Morris. The results also show a high internal consistency and are generally consistent with those observed in validations made in other countries [5, 21, 26] and with the Spanish versions of the Oswestry ($\alpha = 0.86$) and the Roland-Morris. In the latter case an improvement was seen between the first and second measurement, from, 0.84 to 0.91 with 15 days between the two.

In determining the construct validity, we found strong correlations between the 'pain/disability' scale and the physical component of the SF-36 and, to a lesser degree, for 'neuro', which is consistent with the results observed in other studies [5]. Another consistent result is the weak correlation of the change in 'neuro' with the change in Lasegue [7, 15], suggesting two possible interpretations: that these measures are not really sensitive to change or, in the case of high correlations, that the functional measures could be redundant.

Another property studied was the responsiveness over time to clinical change. The statistical effect size tells us the magnitude of the change in health state translated to a standard unit of measure. Among patients who improve, the sensitivity to change obtained on the NASS scales is similar to that obtained by other authors with the Roland-Morris and better than that of the Oswestry: 2.02 vs 0.8 [3]. In persons with sciatica, Patrick et al. [22] obtained an effect size of -1.5 y -1.6 for the measure of symptoms and the modified Roland, respectively. The effect in stable patients should be 0, reflecting the absence of change; in fact it was close to 0 except for 'pain/disability' which had a small effect. By ROC curve analysis we measured the area under the curve, which can vary from 0.5 (no discrimination) to 1.0 (perfect discrimination). The disadvantage of the measure is the lack of a "gold standard" and the result

Table 6 Areas under the receiver operating characteristic (ROC) curve and effect size for patients rated as better or much better between test and post-treatment evaluation and for patients who were stable between test and retest

	ROC area	Confidence interval (95%)	Effect size Improvement between test and post-treatment ($n = 50$)	Effect size Stable between test and retest ($n = 34$)
P/D	0.77	0.65–0.87	1.7	0.27
Neuro	0.74	0.60–0.84	1.3	–0.05
PD + Neuro	0.81	0.69–0.90	2.02	–0.09
SF36_pcs	0.73	0.60–0.84	–1.8	0.07

P/D pain/disability, *Neuro* neurological symptoms, *SF36_pcs* SF36_physical component

depends on the external criterion selected, therefore it is useful for comparison with other scales and not for its absolute value, more or less close to 1.0. Using the patient's judgment as the external criterion, the areas for the Roland and Oswestry are 0.93 and 0.76, respectively [3].

When extrapolating results, it is necessary to consider such sources of variability as type of patients selected, type of treatment and follow-up time. In the case of neurologic lesion, improvement is slow and the recovery period is longer (up to 1.5 years); pain, on the other hand, responds quickly.

Notable among the main advantages of the NASS is that it contains in a single instrument the five domains that should be included in the evaluation of the treat-

ment of patients with back alterations [4]: back specific function, generic health status, pain, work disability and patient satisfaction. This makes it easier to use and ensures that all the measures are standardized so that comparisons can be made among different places, conditions and treatments.

In conclusion, the NASS questionnaire meets the content requirements for the evaluation of treatment, it is valid and sensitive to change, and it meets the proposed reliability standards for group comparisons. More research is needed, however, for its use in patient follow-up.

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Appendix

Table a

Expectations scale

? **Qué resultados espera de su tratamiento?** (Señale una respuesta para cada pregunta)

	Imposible	Poco posible	Algo posible	Muy posible	Totalmente posible	No aplicable
31. Alivio de síntomas (dolor Hinzazón, entumecimiento)	1	2	3	4	5	6
32. Mejorar mi actividad diaria en casa	1	2	3	4	5	6
33. Dormir mejor	1	2	3 4	5 6		
34. Volver al trabajo	1	2	3 4	5 6		
35. Poder hacer ejercicio físico y actividades de ocio	1	2	3	4	5	6
35a. Prevenir la discapacidad	1	2	3	4	5	6

SATISFACTION SCALE (Follow-up questionnaire)

? **Los resultados del tratamiento cumplen sus expectativas en cuanto a?:**

	Imposible	Poco posible	Algo posible	Muy posible	Totalmente posible	No aplicable
31. Alivio de síntomas (dolor hinhazón, entumecimiento)	1	2	3	4	5	6
32. Mejorar mi actividad diaria en casa	1	2	3	4	5	6
33. Dormir mejor	1	2	3	4	5	6
34. Volver al trabajo	1	2	3	4	5	6
35. Poder hacer ejercicio físico y actividades de ocio	1	2	3	4	5	6
36. Si tuviera que pasar el resto de su vida con los mismos síntomas que tiene ahora, ¿cómo se sentiría?						
1. Muy insatisfecho 2. Algo insatisfecho 3. Neutral 4. Algo satisfecho 5. Muy satisfecho						
36a. Si pudiera volver atrás y tomar la decisión otra vez, ¿elegiría el mismo tratamiento para su problema de espalda?						
1. Definitivamente sí 2. Probablemente sí 3. No estoy seguro 4. Probablemente no 5. Definitivamente no						

Pain, disability and neurogenic symptoms scale

Durante la última semana con qué frecuencia ha padecido usted los siguientes síntomas
(por favor, señale con un círculo el número que corresponda)

	Nunca	Solo alguna vez	Algunas veces	Muchas veces	Casi siempre	Siempre
38. Dolor de espalda y/o dolor de nalgas	1	2	3	4	5	6
39. Dolor de pierna	1	2	3	4	5	6
40. Adormecimiento, picores en la pierna y/o pie	1	2	3	4	5	6
41. Debilidad en la pierna y/o pie.	1	2	3	4	5	6

Table a (Contd.)

	Nada molestos	Ligeramente molestos	Algo molestos	Bastante molestos	Muy molestos	Inaguantables
Durante la semana pasada, cuánto le han molestado los siguientes síntomas (por favor señale con un círculo el número que corresponda).						
42. Dolor de espalda y/o dolor de nalgas	1	2	3	4	5	6
43. Dolor de pierna	1	2	3	4	5	6
44. Adormecimiento, picores en la pierna y/o pie	1	2	3	4	5	6
45. Debilidad en la pierna y/o pie.	1	2	3	4	5	6
Durante la última semana, díganos si el dolor ha impedido realizar las siguientes actividades. (Señalar sólo UNA de las situaciones que mejor se aproxime a su caso)						
46. Vertirse (durante la <i>última semana</i>)						
1- Puedo vestirme sin dolor						
2- Puedo vestirme solo sin que mi dolor aumente						
3- Puedo vestirme solo pero mi dolor aumenta						
4- Puedo vestirme solo pero con bastante dolor						
5- Puedo vestirme solo pero con mucho dolor						
6- No puedo vestirme solo						
47. Levantar objetos (durante la <i>última semana</i>)						
1- Puedo levantar objetos pesados sin dolor						
2- Puedo levantar objetos pesados pero es doloroso						
3- El dolor me impide levantar objetos pesados del suelo pero puedo hacerlo si están sobre una mesa						
4- El dolor me impide levantar objetos pesados, pero puedo levantar objetos menos pesados si están sobre una mesa						
5- Solo puedo levantar objetos ligeros						
6- No puedo levantar ningún objeto						
48. Pasear y correr (durante la <i>última semana</i>)						
1- Puedo pasear o correr sin dolor						
2- Puedo pasear bien pero correr es doloroso						
3- El dolor me impide pasear más de una hora						
4- El dolor me impide pasear más de treinta minutos						
5- El dolor me impide pasear más de diez minutos						
6- No puedo pasear o solo puedo andar unos pocos pasos						
49. Sentarse (durante la <i>última semana</i>)						
1- Puedo sentarme en una silla todo el tiempo que quiero						
2- Sólo puedo sentarme todo el tiempo que quiero en una silla especial						
3- El dolor me impide estar sentado más de una hora						
4- El dolor me impide estar sentado más de media hora						
5- El dolor me impide estar sentado más de 10 minutos						
6- El dolor me impide totalmente estar sentado.						
50. Ponerme de pie (durante la <i>última semana</i>)						
1- Puedo estar de pie todo el tiempo que quiero						
2- Puedo estar de pie todo el tiempo que quiero, pero me produce dolor						
3- El dolor me impide estar de pie más de una hora						
4- El dolor me impide estar de pie más de media hora						
5- El dolor me impide estar de pie más de 10 minutos						
6- El dolor me impide totalmente estar de pie						
51. Dormir (durante la <i>última semana</i>)						
1- Duermo bien						
2- El dolor ocasionalmente me despierta						
3- El dolor me despierta la mitad de las veces						
4- El dolor me despierta frecuentemente						
5- El dolor me despierta siempre						
6- Nunca duermo bien						
52. Mi vida social y de ocio (durante la <i>última semana</i>)						
1- Mi vida social y de ocio no ha cambiado						
2- Mi vida social y de ocio no ha cambiado, pero me aumenta el dolor						
3- Mi vida social y de ocio no ha cambiado, pero me aumenta mucho el dolor						
4- El dolor limita mi vida social y de ocio						
5- El dolor limita mucho mi vida social y de ocio						
6- Prácticamente no tengo vida social y de ocio a causa del dolor.						
53. Viajar (durante la <i>última semana</i>)						
1- Puedo viajar a cualquier parte						
2- Puedo viajar a cualquier parte, pero me aumenta el dolor						
3- A pesar del dolor, puedo arreglármelas para viajar unas dos horas						
4- El dolor me limita los viajes de más de una hora						

Table a (Contd.)

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- 5- El dolor me limita los viajes de más de media hora
 6- El dolor me impide viajar
 54. Mis relaciones sexuales
 1- Mi vida sexual no ha cambiado
 2- Mi vida sexual no ha cambiado, pero me produce algo de dolor
 3- Mi vida sexual casi no ha cambiado pero es muy dolorosa
 4- Mi vida sexual está muy restringida por el dolor
 5- Mi vida sexual es casi nula por el dolor
 6- El dolor impide totalmente mi vida sexual.
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