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Original Article

Spanish "Fine Tuning" of Language To Describe Depression and Anxiety

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Abstract

On screening tools for emotional distress, the terms "depression" and "anxiety" are commonly used for patients with advanced cancer. However, these terms could have negative connotations in Spanish such that cultural and unexpected differences in perception may invalidate or skew the results of the screening if the best terms are not chosen. The goal of this study was to determine the best expression that can be used to explore anxiety and depression in Spanish. A prospective study of 100 Spanish-speaking patients was performed. Spanish patients with cancer completed the Hospital Anxiety and Depression Scale (HADS) and six Verbal Numerical Scales (VNS) exploring the level of anxiety using the terms *ansioso* (anxious), *nervioso* (nervous), or *intranquilo* (uneasy/disquiet), and the level of depression using the terms *deprimido* (depressed), *desanimado* (discouraged), or *triste* (sad). The correlation, sensitivity, and specificity for all the VNS and HADS (8 and 11 cutoff points) were analyzed. The correlation (Spearman ρ) between HADS and the anxiety VNS was $r = 0.557$ using "anxious"; $r = 0.603$ using "nervous"; and $r = 0.594$ using "uneasy." The correlation for the depression VNS was $r = 0.662$ using "depression"; $r = 0.759$ using "discouraged" and $r = 0.596$ using "sad"; $\alpha < 0.001$ was used in all VNS. A cutoff point of 4 of 10 for any term used to explore anxiety achieved the best levels for sensitivity (0.80) and specificity (0.70). The term "discouraged" with a cutoff point of 4 of 10 shows a sensitivity of 0.89, a specificity of 0.84, as well as a predictive positive value of 0.77 and a negative value of 0.93. In Spanish, the term *desanimado* seems to be more suitable in screening for depression. Alternate terms could be used to explore anxiety in Spanish. Exploring depression with simple questions in Spanish achieves greater accuracy than the same approach to exploring anxiety.

Introduction

Emotional stress is a major source of suffering for patients at life's end and poses a high risk of therapeutic nonadherence.[1] Studies show the prevalence of anxiety disorders and depression is 30–50%.[2] Despite its high prevalence and its importance it is often not adequately explored.[3] Better diagnosis of suspected depression could reduce the number of untreated patients.[4]

A clinical interview by a specialist in psychiatry is currently the gold standard for diagnosis of anxiety and depression, but in practice this approach in palliative care is reserved for complex situations. To find fast and reliable alternatives to explore emotional stress in patients with advanced diseases, simple questionnaires have been developed, or specific questions have been included within other tools used to evaluate general symptoms. After studying Chochinov et al.,[5] it seemed that the best way to diagnose depression in patients treated by palliative care units was the direct question: "Are you depressed?" but these data were not corroborated by later studies.[6,7]

Most studies of screening for anxiety and depression have been conducted in English. The direct translation of a word into another language can present linguistic nuances. This can lead to misinterpretation when performing queries to determine the status of a patient. Adapting procedures from other cultural or linguistic sources through a literal translation can lead to errors of validity and reliability. In clinical interviews within our environment, the direct use of terms like "anxiety and depression" is not very common and it is often preferred to deal with emotional distress in more gentle terms.

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To implement the Edmonton Symptom Assessment Scale (ESAS),[8] a symptom assessment tool widely used in palliative care, the use of alternative terms has been recommended for evaluating some symptoms. However, it has not been studied whether asking about anxiety or depression using different words can cause a change in the intensity of the expression of the symptom or change the sensitivity of the clinical examination. During the validation process of the Spanish version of ESAS that our group currently develops we have wondered if some terms are more appropriate than others to explore anxiety or depression in Spanish. We get the impression that the Spanish direct question on depression has negative connotations and it is possible for patients score lower as a result of the term used. Thus the aim of this study was to determine the best term in Spanish to explore anxiety and depression when a direct inquiry is used in a questionnaire.

Materials and Methods

A prospective study was designed to determine whether there were differences in the assessment of anxiety and depression in a patient according to the word used. Between January and November 2006, 100 patients from the University of Navarra Clinic participated in this study. The patients had been admitted to the Department of Oncology or were attending an outpatient clinic. Patients were diagnosed with advanced cancer, older than 18 years, and gave their written consent. Patients with a clinical diagnosis of cognitive impairment or who were, according to their physician, too weak to participate in a study were excluded. The study was approved by the Ethics Committee of the Medical Center.

The patients completed three assessment instruments as outlined below.

Verbal Numerical Scales with alternate terms intended to explore anxiety and depression

Prior to starting the study a group of palliative care professionals (three physicians and three nurses) chose by consensus in a presence meeting three alternate terms to explore anxiety, and three terms to explore depression that were deemed appropriate and easy to adapt to a Verbal Numerical Scale (VNS). We used three VNS using the terms anxious/*ansioso*, nervous/*nervioso*, and uneasy/*intranquilo*, respectively, to explore anxiety, and three other VNS using depressed/*deprimido*, discouraged/*desanimado*, and sad/*triste* to assess depression (Table 1). Three other questions were interspersed regarding anorexia, fatigue, and difficulty sleeping to prevent contamination or empathy in the responses.

Two questions about the patient's preference regarding the term to explore anxiety and depression: Two closed questions were used that allowed the patient to choose between the terms proposed.

Table 1. Different Spanish Terms Used to Explore Depression and Anxiety

Depression		*Anxiety*	
Spanish term	*English translation*	*Spanish term*	*English translation*
Deprimido	Depressed	*Ansioso*	Anxious
Desanimado	Discouraged	*Nervioso*	Nervous
Triste	Sad	*Intranquilo*	Disquiet

Hospital Anxiety and Depression Scale[9]

This questionnaire of 20 questions about symptoms of emotional stress has been validated in Spanish and has been used repeatedly with palliative care patients.

We followed analytical strategies similar to those reported in other studies screening for depression in English by Vignaroli et al.[10] The diagnosis of depression or anxiety was made when patients presented a score of 8 of 21 or more in the Hospital and Anxiety Depression Scale (HADS) questionnaire for anxiety or depression, following this evaluation tool developer's instructions.[11] The diagnoses of moderate and severe depression or moderate and severe anxiety were made when the HADS was 11–14 of 21 and 15 of 21 or more, respectively. In the analysis of the VNS, depression and anxiety were considered present when the intensity of the symptom was at least 1. Moderate or severe diagnosis was made when the VNS was 4 of 10 or more.

The screening performance of each of the VNS was assessed using HADS as the gold standard. Because of the very limited number of patients who scored positive for severe depression in HADS (23/100) and anxiety (16/100), it was not possible to establish sensitivity, specificity, or positive and negative predictive values (PPV/NPV) for severe case findings in this series. Finally, we reported a new value for sensitivity, specificity, PPV, and NPV for each VNS according to newly defined cutoff points in the VNS.

The appropriateness of the different Spanish terms tested was studied by comparing:

1. The correlation (Spearman's ρ) with HADS subscale score,
2. The preference of patients, and
3. The sensitivity, specificity, PPV, and NPV scores with various cut-off points.

Results

Patient characteristics relative to age, gender, and type of tumor are shown in Table 2. In our sample, gastrointestinal tumors are prevalent. The sample was recruited in the oncology areas with a higher number of consultations to our palliative care unit. This could explain the lack of other prevalent oncology diseases like lung or breast cancer. The patient sample is younger than in a palliative care setting as seen in many oncology departments of university hospitals. Most of the patients were under active treatment, but 72% of them did not have curative expectations.

Table 3 reflects the intensity of anxiety and depression explored using HADS as well as three VNS using alternative terms. According to the interpretation of the HADS score, one third of patients exhibited depression (38/100) and anxiety (30/100). Data showed moderate to severe depression in 23 of 100 and moderate to severe anxiety in 16 of 100. In the VNS studied, a moderate variability was observed in the descriptive terms as follows: *deprimido* and *desanimado* got a lower median, 2 of 10; and the rest of the terms tested got an average of 3 of 10. The 75th percentiles obtained for the VNS using *triste* and the VNS using *intranquilo* are also a

Table 2. Sample Characteristics

Characteristic	*Frequency*
Median age	57
Gender	
Male	60
Female	40
Cancer diagnose	
Colorectal	36
Hematologic	15
Genitourinary	15
Other gastrointestinal	10
Others	16
Studies	
Elementary	34
Mid-Level	32
Advanced	32
Total	100

point above the VNS using *deprimido* and the VNS using *ansioso*, respectively.

The screening performance of the VNS for depression and anxiety was studied (as explored with three different terms and at several cutoff points) according to the HADS subscale of depression or anxiety (Tables 4 and 5). We looked for an acceptable balance between sensitivity (absence of false-negative) and specificity (absence of false-positive). It was found that for depression screening the best performance for sensitivity and specificity for the VNS are achieved with different scores using *deprimido*, *desanimado*, and *triste*. The following scores will be recommended as new cutoff points: 2 or more of 10 for *deprimido*, 3 or more of 10 for *triste*, and 4 or more for *desanimado*.

Comparable data for sensitivity and specificity, as well as PPV and NPV are shown in Table 6. For depression, the highest VNS score with the new cutoff point is achieved for *desanimado*: a cutoff point of 4 yields values of 0.89 for sensitivity, 0.84 for specificity; a PPV of 0.77 and a NPV of 0.93. The data for moderate or severe using *desanimado* are 0.91 and 0.70. Using the term *deprimido* (all levels of intensity) achieves a similar level of specificity at the best cutoff point of 2 (0.87); however, its specificity was only 0.60. For mild, moderate, or severe anxiety explored with any term in the VNS, the sensitivity and specificity are very similar: approximately 0.80 and 0.70, respectively.

As shown in Table 6, we found better correlation with the depression subscale of HADS for the term *desanimado* (Spearman correlation 0.76) than for *deprimido* (0.66), or *triste* (0.59). For anxiety the correlation was similar; all at around 0.55–0.60. When we asked the patients which term they preferred to explore their mood (Table 5) more than half preferred *desanimado* to express a depressed mood. There is no preferred term for any of the anxiety alternate terms: *ansioso*, *intranquilo*, or *nervioso*.

Discussion

In a prospective study we found that the term *desanimado* yields a better statistical correlation with the HADS depression subscale than other terms, presents ideal characteristics for screening and is preferred by patients to describe their mood. When analyzing various terms used to explore anxiety (anxious, nervous, or uneasy), all showed a similar effectiveness for screening. Our data showed that *desnimado* seems to be the most proper term to screen depression in Spanish. The terms *ansioso*, "*intranquilo,* or *triste* could be used indistinctly to screen anxiety. It is interesting to point out that the correlation index for any of the three terms used for anxiety are lower than those obtained for depression (except for sad). This point raises the question of the lower utility of VNS with simple questions to explore anxiety.

Our sample shows several limitations: it was small and we did not register the performance status of our patients. The cultural level of the sample is unknown but probably, because of the characteristic of our hospital as a private institution, could be higher than the general Spanish population. None of the patients showed difficulties answering our questions, but patients with extreme fatigue were excluded in the evaluation. In our opinion these limitations have minimal influence on the cognitive perception of the symptoms explored. The main objective of this study was to explore semantic nuances.

Other studies examining psychometric properties of questionnaires assessing symptoms, such as ESAS in its original English version, have not investigated whether the term used

Table 3. Depression or Anxiety as Explored Using Various tools: HADS vs. VNS with Alternate Terms

	HADS Subscale[a]		*VNS*[b]		
Depression	*Level*		*Depressed*	*Discouraged*	*Sad*
	Symptom present	38	58	64	71
	Moderate or severe only	23	38	44	46
	Percentile 25–75	2.00–10.00	0.00–5.00	0.00–5.75	1.00–6.00
	Median (range)	5	2	2	3
Anxiety			*Anxious*	*Nervous*	*Uneasy*
	Symptom present	30	63	69	72
	Moderate or severe only	16	43	42	43
	Percentile 25–75	3.00–8.00	0.00–5.00	0.25–5.00	1.00–6.00
	Median (range)	6	3	3	3

[a]Depression or anxiety with HADS criteria: exhibits 8 or more out of 21, moderate or severe 11 or more out of 21.
[b]Depression or anxiety with VNS criteria: exhibits 1 or more out of 10, moderate or severe 4 or more out of 10.
HADS, Hospital Anxiety and Depression Scale; VNS, Verbal Numerical Scales.

Table 4. Performance of VNS for Depression (As Explored Using Three Different Terms) According to HADS in One Hundred Patients

	VNS 'Depressed'				*VNSE 'Discouraged'*				*VNS 'Sad'*			
	'Depressed' diagnostic in HADS subscale				*'Depressed' diagnostic in HADS subscale*				*'Depressed' diagnostic in HADS subscale*			
	p (n = *31*)		*M/S* (n = *23*)		p (n = *31*)		*M/S* (n = *23*)		p (n = *31*)		*M/S* (n = *23*)	
VNS score	*SS*	*SP*	*SS*	*SP*	*SS*	*SP*	*SS*	*SP*	*SS*	*SP*	*SS*	*SP*
≥0	1	0	1	0	1	0	1	0	1	0	1	0
≥1	0.95	0.53	1	0.45	1	0.42	1	0.34	0.92	0.34	1	0.31
≥2	**0.87**	**0.60**	0.91	0.52	0.97	0.56	1	0.47	0.92	0.42	1	0.37
≥3	0.76	0.73	0.87	0.66	0.89	0.77	0.91	0.65	**0.87**	**0.66**	0.91	0.57
≥4	0.71	0.82	0.83	0.75	**0.89**	**0.84**	0.91	0.70	0.76	0.73	0.78	0.64
≥5	0.63	0.88	0.78	0.83	0.74	0.87	0.87	0.79	0.71	0.79	0.78	0.71
≥6	0.55	0.95	0.65	0.88	0.58	0.95	0.65	0.87	0.55	0.89	0.65	0.83
≥7	0.34	0.95	0.39	0.91	0.50	0.95	0.56	0.88	0.37	0.90	0.35	0.84
≥8	0.21	0.98	0.22	0.95	0.18	0.98	0.30	0.99	0.26	0.95	0.26	0.91
≥9	0.05	1	0.08	1	0.13	1	0.22	1	0.13	0.97	0.17	0.96
≥10	0	1	1	1	0.08	1	0.13	1	0.05	0.98	0.08	0.99

Depression HADS criteria: Exhibits (p) ≥8, Moderate/Severe (M/S) ≥11.
VNS, Visual Numerical Scale; HADS, Hospital Anxiety and Depression Scale; SS, sensitivity; SP, specificity.

Table 5. The Screening Performance of VNS of Anxiety (as Explored with Three Different Terms) According to HADS in One Hundred Patients

	VNS 'Anxious'				*VNS 'Nervous'*				*VNS 'Disquiet'*			
	'Anxious' diagnostic in HADS subscale				*Anxious' diagnostic in HADS subscale*				*Anxious' diagnostic in HADS subscale*			
	p (n = *31*)		*M/S* (n = *23*)		p (n = *31*)		*M/S* (n = *23*)		p (n = *31*)		*M/S* (n = *23*)	
VNS score	*SS*	*SP*	*SS*	*SP*	*SS*	*SP*	*SS*	*SP*	*SS*	*SP*	*SS*	*SP*
≥0	1	0	1	0	1	0	1	0	1	0	1	0
≥1	0.90	0.38	0.81	0.32	0.93	0.33	1	0.30	0.97	0.23	1	0.21
≥2	0.87	0.47	0.81	0.40	0.93	0.41	1	0.37	0.93	0.37	0.94	0.33
≥3	0.83	0.56	0.81	0.48	0.83	0.59	0.87	0.52	0.86	0.54	0.87	0.48
≥4	**0.80**	**0.73**	0.81	0.64	**0.80**	**0.74**	0.87	0.67	**0.83**	**0.74**	0.87	0.66
≥5	0.67	0.80	0.69	0.73	0.77	0.81	0.87	0.74	0.70	0.81	0.81	0.76
≥6	0.47	0.90	0.50	0.84	0.57	0.91	0.62	0.85	0.55	0.87	0.62	0.82
≥7	0.37	0.94	0.31	0.88	0.30	0.94	0.31	0.90	0.14	0.91	0.50	0.88
≥8	0.20	0.98	0.13	0.94	0.10	0.96	0.06	0.94	0.21	0.96	0.19	0.93
≥9	0.13	1	0.06	0.96	0.10	1	0.06	0.98	0.17	1	0.19	0.97
≥10	0.10	1	0.06	0.98	0	1	0	1	0.10	1	0.12	0.99

Anxious HADS criteria: Present (P) ≥8, Moderate/Severe (M/S) ≥11.
VNS, Visual Numerical Scale; HADS, Hospital Anxiety and Depression Scale; SS, Sensibility; SP, specificity.

Table 6. Sensitivity, Specificity, PPV, NPV, Correlation, and Patient Preference for the Best Performance Level of the VNS for Depression and Anxiety

VNS TERM (best performance level)		*Symptom diagnosed by HADS*	*Sensitivity*	*Specificity*	*PPV*	*NPV*	*Correlation VNS-HADS subscale*[a]	*Patient preferred term*
Deprimido (depressed) (2 or more of 10)	All cases	33	0.87	0.60	0.57	0.88	0.66	18
	Moderate–severe only	21	0.91	0.52	0.36	0.95		
Desanimado (discouraged) (4 or more of 10)	All cases	34	0.89	0.84	0.77	0.93	0.76	52
	Moderate–severe only	21	0.91	0.70	0.47	0.96		
TRISTE (sad) (3 or more of 10)	All cases	33	0.87	0.66	0.75	0.89	0.59	30
	Moderate–severe only	21	0.91	0.57	0.39	0.96		
Ansioso (anxious) (4 or more of 10)	All cases	24	0.80	0.73	0.56	0.89	0.56	35
	Moderate–severe only	13	0.81	0.64	0.30	0.95		
Intranquilo (uneasy/disquiet) (4 or more of 10)	All cases	25	0.80	0.74	0.58	0.91	0.60	31
	Moderate–severe only	14	0.87	0.67	0.36	0.96		
Nervioso (nervous) (4 or more of 10)	All cases	24	0.83	0.74	0.58	0.90	0.59	33
	Moderate–severe only	14	0.87	0.66	0.33	0.96		

[a]Spearman rho ($\alpha \leq 0{,}001$ for all cases).
PPV, positive predictive value; NPV, negative predictive value; VNS, Visual Numerical Scale; HADS, Hospital Anxiety and Depression Scale.

to assess anxiety and depression affects or influences the expression of these symptoms.[12] Neither did studies that use a Spanish version of ESAS.[13] The ESAS assessment tool originally designed for palliative patients has demonstrated its usefulness as a screening tool for anxiety and depression in this population when compared with HADS.[10] Although the HADS has a higher sensitivity and specificity for the diagnosis of depression in palliative care[7,14] than the VNS, it may be proving to be too long for frail patients. Vignaroli et al.[10] analyzed available data from ESAS and HADS from other studies in English and with a larger sample size in a retrospective study. We found that the best cutoff point for the screening of anxiety or depression with a VNS was 4. Vignaroli suggests a cutoff of 2. However, if we were to select a lower cutoff point with our data, it would significantly increase the rate of false-positives. Having a screening reference base with a VNS available, adds an element useful for judgment following an interview that yields a more complete diagnosis of anxiety or depression in a subgroup of patients. The different cut off points found in this study could be explained because it was a prospective one, or because of cultural differences between samples. We used the HADS at the end of the interview in order to minimize the influence of this tool on the psychometric properties of the VNS.

Our results should be regarded as preliminary since they reflect a sample of 100 patients from different Spanish-speaking parts of Spain. But it would be interesting to generalize them to other Spanish-speaking countries and with larger samples.

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