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A brief and rapid procedure to measure the intensity of depressive symptoms in Primary Care

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Introduction. Depression occupies a substantial part of medical visit attendance. However, medical practitioners have very little time so that a brief, quick and reliable procedure to evaluate the intensity of symptoms and their changes could be useful. Our objective has been to analyze the reliability of a self-applied Visual Analogue Scale (VAS) to measure symptom intensity in depressed patients within this context.

Material and Methods. One hundred depressed outpatients (ICD-10) stated their clinical situation on a VAS. The psychiatrist evaluated them using a Global Clinical Impression (GGI) and Hamilton Depression Rating Scale (HDRS-17).

Results and conclusions. The patient's VAS showed high correlation with the HDRS-17 and with the GCI used by the psychiatrist (r = 0.63 and r=0.58; p=0.000). This suggests that the use of a VAS in Primary Care could be useful and reliable for these purposes within the medical contexts of those having little time availability.

Key-words:
Depression, primary care, medical patients, assessment, evaluation

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Un procedimiento breve y rápido para medir la intensidad de los síntomas depresivos en atención primaria

Introducción. La depresión ocupa una parte sustancial de la asistencia médica. Pero los médicos generalistas disponen de muy poco tiempo y podría serles útil un procedimiento breve, rápido y fiable para evaluar la intensidad sintomatológica y sus cambios. Nuestro objetivo ha sido analizar la fiabilidad de una Escala Analógico Visual (EAV) autoaplicada para medir la intensidad sintomatológica en pacientes deprimidos en ese contexto.

Material y Métodos. Cien pacientes deprimidos ambulatorios (CIE-10) expresaban su situación clínica sobre una EAV. El psiquiatra los evaluaba utilizando una Impresión Clínica Global (ICG) y la Escala de Hamilton para la Depresión (EHD-17).

Resultados y conclusiones. La EAV del paciente correlaciona alto con la EHD-17 y con la ICG empleadas por el psiquiatra (r= 0,63 y r=0,58; p=0,000). Lo que sugiere que el uso de una EAV en Atención Primaria podría ser útil y fiable para estos fines en contextos médicos con poca disponibilidad de tiempo.

Palabras-clave:
Depresión, atención primaria, pacientes médicos, medida, evaluación.

INTRODUCTION

Depression is a very prevalent psychic disorder, and constitutes a real Public Health problem.[1] It is also a disease that accompanies many other nonpsychiatric conditions. Up to 32% of women and 16% of men admitted to the Internal Medicine wards may be depressed.[2] This is important if it is considered that such comorbidity, in addition to complicating the treatment, increases the sensation of severity the patient feels.[2]

Depressed patients are also common in Primary Care. Furthermore, the difficulties that the general practitioners have to detect these cases, even though they see them several times a year, are known.[3]

Different strategies have been developed to resolve the problems nonpsychiatric physicians have in order to detect and follow-up depressive disorders. Some of these are aimed

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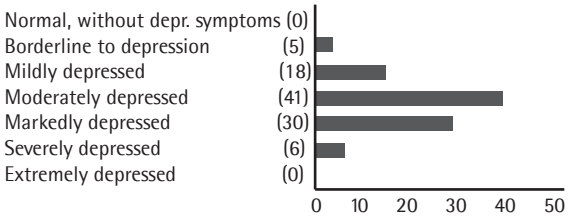

Figure 1 Number of cases in each interval of the Global Clinical Impression evaluated by the psychiatrist

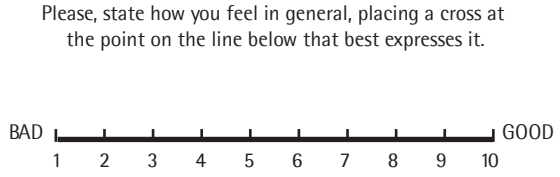

Figura 2 Visual Analogue Scale on which the patients are asked to express how they feel in general regarding the mood state. Tell the patient that "GOOD represents their usual condition when they are not ill and BAD represents the worst moment they have had while being depressed."

at facilitating diagnoses by means of simple interviews that consider, above all, the limited time available to these physicians.[4] On some occasions, the zeal for brevity has led to the proposal of a reasonably reliable diagnostic instrument made up of only 2 items.[5] Other strategies design tools that make it possible to measure symptom intensity and their changes under the effects of the treatment. Precisely due to the limited time of these physicians, psychiatrists have proposed different short versions of well-known scales, such as the Hamilton Rating Depression Scale,[6-8] or they have specifically constructed other scales for this purpose.[9]

In spite of these achievements, efforts are still being made to seek this conciseness.[10-13] We, ourselves, have developed some brief instruments aimed at both diagnoses and follow-up of depressed patients.[14,15]

The purpose of our present study is to investigate the possibility of providing Primary Care physicians with a truly brief instrument that requires little time in order to evaluate the follow-up of patients already diagnosed of depression. This would be a good way to quantify this evolution. Therefore, we have analyzed the reliability of a brief procedure that is safe and simple, that is, a simple Visual Analogue Scale (VAS).

MATERIAL AND METHODS

Subjects: The study sample is made up of 100 depressed patients consecutively seen in the Mental Health Center of Madrid. All the patients met the ICD-10[15] diagnostic criteria for depressive episode, dysthymia or depressive adaptive reaction. The patients were included in the investigation regardless of the symptomatic intensity of their picture at the time (Fig. 1) and the treatment they were receiving. Subjects under 18 years of age and patients who had any comorbidity with this psychic or physical diseases were not included.

Procedure: The patients were approached by their usual psychiatrist within the context of a clinical interview to obtain their informed consent to be included in the investigation, as required by the ethical guidelines of the Ethics Committee of the Center. Once this was obtained, the patient was simply asked to express *how they felt at that point in time about their mood status* indicating this with a cross at any point along a 10 cm line located between two qualitative adjectives that acted as opposite extreme poles: GOOD and BAD (Fig. 2). The line had ten numbered points in order to facilitate the quantifying task for the patients. It has been verified that this type of VAS is as effective as those that do not have numerical intervals, and that it is preferred by the patients.[16]

The psychiatrist gathered some sociodemographic data from the patient and evaluated the patient's clinical condition using the 17-item Hamilton Rating Depression Scale (HRDS-17) validated in Spanish.[7] They expressed their subjective impression of the patient's clinical state with the Global Clinical Impression (GCI) scale (Fig. 1).

Statistical analysis: The convergent validity of the VAS was analyzed by calculating its correlation (Pearson product-moment correlation coefficient) with the total score and other partial scores of the HRDS-17 and GCI. To consider the correlations as statistically significant regarding zero, a $p<0.01$ was required *a priori*. Squaring the correlation coefficient transformed them into a determination coefficient. This was useful to determine the proportion of variance that the responses of the patients on the VAS shared with that of the psychiatrists (HRDS-17 and GCI). The higher this was, the greater the similarity that could be attributed to the measurements between one and another.[17,18]

RESULTS

The patients included in the study had a sufficient variety of depressive symptomatic intensity to make the research projected viable, with an approximately normal

Table 1 Correlation* between the self-evaluations of the patients and those made by the psychiatrists

	$HRDS_{MEL}$		$HRDS_{ANX}$		HRDS-17		ICG	
	r	(r^2)	r	(r^2)	r	(r^2)	r	(r^2)
VAS	-0.59	(0.35)	-0.54	(0.29)	-0.63	(0.40)	-0.58	(0.34)

HRDS-17: Hamilton Rating Depression Scale; GCI: Global Clinical Impression; VAS: Visual Analogue Scale;
HRDS: Hamilton Rating Depression Scale (Melancholy factor); HRDSANX: Hamilton Rating Depression Scale (Anxious factor).
*all, statistically significant at a p=0.000 (two tails)

distribution (Fig.1). It can be observed in Figure 1 that the extreme values on this scale are not represented. That is, there were no cases without depressive symptoms and no extremely depressed cases were found.

Table 1 reflects the correlations obtained between the self-evaluation performed by the patients with the VAS and those made by the psychiatrists represented by the GCI and the total score of the HRDS-17. Both correlations are high and statistically significant (p=0.000). This is especially important if the sample size is taken into account.

The score reached on the VAS also had a high and statistically significant correlation with the Melancholy (very influenced by the presence of inhibition and lack of impulse to the activity) and the Anxiety (where anxiety and anxious somatizations had the highest saturation) factors contained in the HRDS-17[19] (0.35 and 0.29, respectively). It also correlated at levels similar to the correlation obtained with the GCI, but did so somewhat less than with those obtained with the HRDS-17.

If the correlation coefficient is squared in order to transform it into a determination coefficient, it is found that the VAS shares 40% of the variance with the total score of the HRDS-17 (0.40) and somewhat more than one-third of the variance with the GCI (0.34). This last proportion is similar to that shared with the Melancholy factor of the HRDS -17 (0.35) and the Anxious factor (0.29).

DISCUSSION

The elevated correlation of a simple VAS with an objective evaluation of the depressive symptom intensity as is the very contrasted HRDS-17 seems to show a sufficient concurrent validity to consider it as another good procedure to evaluate the intensity of these symptoms.

Its briefness and rapidity of application seem to make it useful in clinical contexts that require fast action. On the other hand, as its results do not depend on the psychiatric clinical skill of the physician applying it, it considerably reduces the variance of error induced for this reason and makes it applicable by general practitioners and any specialist who is not a psychiatrist.

Herein, it seems that the VAS is useful to evaluate such an impenetrable experience as depression, the same as it has been useful for years to measure something so evanescent as the experience of pain.[20,21] After many attempts with more prolific and complex instruments, the VAS seems to be the easiest, most comfortable and reliable application procedures to evaluate pain.[22] However, this is still being discussed nowadays.[23]

The finding of higher correlations between the VAS and the total score of the HRDS-17 than with their partial scores (in the Melancholy factor or that represented by the rest of the items [Anxiety]) seems to indicate that the VAS is a good indicator of the global depressive symptom intensity of the patients. The fact that the VAS and the total score of the HRDS -17 share 40% of the variance seems to be a very eloquent statistical argument. In principle, this would make it possible to establish differences between successive evaluations and to verify the evolution of the patients.

However, the present investigation has two limitations. One comes from the objectives proposed in it. Its results make it possible to support the convergent validity of the VAS to measure symptom intensity in previously diagnosed patients. However, the findings herein presented do not make it possible to use the VAS to perform such diagnoses. There is no argument available to justify the use of the VAS as a diagnostic instrument.

The other limitation is because of the methodology used. A cross-sectional cutoff was made when the behavior of the VAS with patients who have different symptomatic intensities at a given time of their evolution was analyzed. A longitudinal study is needed to make it possible to establish its behavior in successive evaluations together with the

HRDS-17. In this way, its validity would be confirmed in the follow-up of the patients. The results we are presenting are encouraging. The VAS is capable of determining different symptomatic intensities as done by the total score of the HRDS -17, but it would be necessary to perform this complementary investigation to verify it.

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