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Symptoms that contribute to the perception of depressive sympton intensity. A preliminary study

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Introduction. Psychiatrists use few symptoms when diagnosing depression. This study has aimed to know what symptoms are used by the psychiatrists to evaluate the severity of a depressive person compared to how they are evaluated when using a standardized instrument such as Hamilton's Rating Scale for Depression (HRSD-17).

Methodology. A total of 100 depressed outpatients attended consecutively who met the ICD-10 criteria for depressive episode, dysthymia or adjustment disorders depressive types were studied. The depressed outpatients expressed their clinical situation on a Visual Analogue Scale (VAS) whose extreme values were the adjectives WELL and BAD. The psychiatrist evaluated them using a Clinical Global Impression (CGI) scale on the state of the patient's depressed mood, and Hamilton's Rating Scale for Depression (HRSD-17). The total scores obtained with those instruments and with the partial scores of the melancholic and anxious factors of the HRSD-17 were correlated (Pearson's R).

Results. Psychiatrists give more importance to melancholic symptoms than to anxious ones to establish the severity of a depressed outpatient. Depressed outpatients give the same importance to their anxious and melancholic symptoms. In addition, the total score of the HRSD-17 is more influenced and shares a larger variance proportion with anxious symptoms than with melancholic ones. All the correlations calculated are statistically significant ($p = 0.000$).

Conclusions. The authors discuss the influence that the HRSD-17 can have on seemingly precocious results offered by some clinical trials of antidepressants drugs.

Key words:
Depression. Depressive symptoms. Measure. Evaluation. Hamilton scale.

Síntomas que contribuyen a la percepción de la intensidad sintomatológica depresiva. Un estudio preliminar

Introducción. Los psiquiatras utilizan pocos síntomas para hacer el diagnóstico de depresión. El objetivo planteado por esta investigación es conocer los síntomas que utilizan los psiquiatras para valorar la gravedad de un enfermo depresivo en comparación a cómo lo hace un instrumento estandarizado como la Escala de Hamilton para la depresión (EHD-17).

Metodología. Cien pacientes deprimidos atendidos consecutivamente en régimen ambulatorio que reunían los criterios CIE-10 para episodio depresivo, distimia o trastorno adaptativo tipo depresivo, expresaban su situación clínica sobre una Escala analógico visual (EAV) cuyos valores extremos eran los adjetivos BIEN y MAL. El psiquiatra los evaluaba utilizando una Impresión clínica global (ICG) sobre el estado de ánimo deprimido del paciente, y la Escala de Hamilton para la depresión (EHD-17). Se correlacionan (r Pearson) las puntuaciones totales obtenidas con esos instrumentos y con las puntuaciones parciales de los factores melancólico y ansioso de la EHD-17.

Resultados. Los psiquiatras dan más importancia a los síntomas melancólicos que a los ansiosos para establecer la gravedad de un paciente deprimido. Los pacientes deprimidos dan la misma importancia a sus síntomas ansiosos y melancólicos. Y la puntuación total de la EHD-17 está más influida y comparte una mayor proporción de varianza con los síntomas ansiosos que con los melancólicos. Todas las correlaciones calculadas son estadísticamente significativas ($p = 0,000$).

Conclusiones. Los autores plantean la influencia que puede tener ese comportamiento de la EHD-17 sobre resultados aparentemente precoces ofrecidos por algunos ensayos clínicos de fármacos antidepresivos.

Palabras clave:
Depresión. Síntomas depresivos. Medida. Evaluación. Escala Hamilton.

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INTRODUCTION

The diagnosis of depressive disorders obtains the lowest agreement rates among interviewers of all mental disorders, even when they use the same diagnostic criteria.[1] The problem may be found in the non-specificity of many of the symptoms that contribute to making such diagnoses.[2] However, other authors have indicated that the problem is more basic and is focused on the unequal perception of the symptoms by the different psychiatrists, that is, the different psychopathological sensitivity of the Psychiatry professionals.[3]

In any case, it seems true that a few of the different symptoms that can be used to establish a diagnosis of depression are used by psychiatrics. For example, the diagnosis of «endogenous» or «melancholic» depression diagnosis is made using only two factors, that is, the presence of *inhibition* and *abnormal personality,* as verified in an international research sponsored by the WHO.[4]

For this reason, when the psychiatrists provide their subjective perception on symptom intensity of depressed patients (on the Clinical Global Impression (CGI Scale, for example), it could be thought that this is conditioned by those symptoms that truly call their attention the most and not by others that are also present and perhaps as important as the former. However, along the same line of reasoning, if a scale designed to such effect is used to evaluate symptom intensity that requires systematic measurement of a large group of symptoms (for example, the Hamilton Rating Scale for Depression[5]), the results may be different as this subjective bias is eliminated or perhaps other biases brought about by the scale itself may be introduced.

This type of speculation is important since, for example, the two evaluations mentioned are generally used in clinical trials, and thus *necessarily* condition their results.

Thus, it is appropriate to spend time analyzing these ideas.

The purpose of the present investigation is to search for the symptoms that psychiatrists really use when they evaluate the intensity of the depressive symptoms, both subjectively and when they use standardized measurement instruments.

MATERIAL AND METHODS

Subjects

The study sample is made up of 100 depressed patients consecutively attended in the outpatient clinic of a Mental Health Site of Madrid. All the patients met the ICD-10[6] diagnostic criteria for depressive episode, dysthymia or depressive adaptive reaction. They were introduced into the research regardless of the symptomatic intensity of their

picture at the time point (Fig. 1), and the treatment they were receiving. Subjects under 18 years of age and patients who had any comorbidity with others psychic or physical diseases were not included.
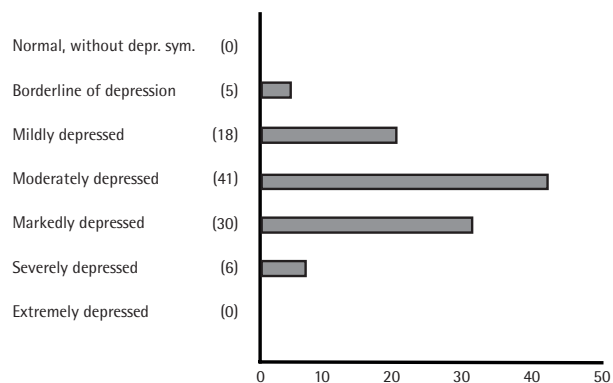

Figure 1 *Number of cases in each interval of the* Clinical Global Impression *evaluated by the psychiatrist.*

Procedure

The patients were approached by their usual psychiatrist during a clinical interview in order to obtain their informed consent to be included in the investigation, as required by the Ethics Committee of the Site. Once obtained, the patient was simply asked to express *what their mood state was at that time,* marking a 10 cm long lines with a cross at some point between two qualitative adjectives that functioned as extreme polls: WELL and BAD. The line was marked with 10 numbered points to facilitate the quantifying task for the patients. It has been verified that this type of Visual Analogue Scale (VAS) is as effective as those that do not have numerical intervals, but that the patients prefer them.[7] The reliability of this procedure for the patients to evaluate their mood state has been verified in another place.[8]

The psychiatrist collected some sociodemographic data of the patient and evaluated their clinical situation using the 17-item Hamilton Rating Scale for Depression (HRSD-17) validated in Spanish,[9] expressing their subjective impression of such state through a CGI scale (Fig. 1).

Statistical analysis

The correlation (the Pearson «r» product-moment correlation coefficient) between VAS, CGI and the total score of the HRSD-17 (HRSD-17-Tot) and other partial scores of the same scale (melancholy factor [HRSD-17-Mel] and anxiety factor [HRSD-17-Anx]) were calculated. In order for the correlations to be considered as statistically significant regarding zero, an *a priori* of p < 0.01 was required. Using the

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Table 1	Correlations* (r) between the total scores of the scales in subscales used, with their respective squares (r^2)				
r / r^2	HRSD-17-Mel	HRSD-17-Anx	HRSD-17-Tot	CGI	VAS
HRSD-17-Mel	---	**0.536**	**0.824**	**0.809**	**0.587**
HRSD-17-Anx	*0.287*	---	**0.920**	**0.611**	**0.537**
HRSD-17-Tot	*0.679*	*0.846*	---	**0.787**	**0.634**
CGI	*0.654*	*0.373*	*0.619*	---	**0.576**
VAS	*0.345*	*0.288*	*0.402*	*0.332*	---

*all significant for p = 0.000 (one-tail); in bold- the correlations (r), in *italics* - the squares of the correlations (r^2).
HRSD-17-Tot: total score of the Hamilton Rating Scale for Depressions.
HRSD-17-Mel: total score of the syndrome subscale of Melancholy of the Hamilton Rating Scale for Depression.
HRSD-17-Anx: total score of the syndrome subscale of the Hamilton Rating Scale for Depression.
CGI: Clinical Global Impression of the doctor
VAS: Visual analogue Scale of the patient.

square of the correlation coefficients (r^2), they were transformed into coefficients of determination. This was useful to determine the proportion of variance that was shared by the correlated scores. The larger they were, the greater similarity that could be attributed to the different measurements.[10,11] For the comparison between correlation coefficients, statistically significant differences were considered, also from a p < 0.01.[12]

The syndrome factor «melancholy» of the HRSD-17 is made up of the items that most saturated in this factor (mood, guilt, inhibition, work and interests, suicide) in a previous investigation.[13] The syndrome factor of «anxiety» has been considered to be that which is made up of the remaining items of HRSD-17, many of them being directly anxious or anxious-dependent.[14]

RESULTS

The sociodemographic profile of the sample studied is represented by a 47-year old woman (76%) (± σ: 12.34), married (70%), who lives alone with her husband (26%) or husband and children (42%), is on sick leave (40%) or working (26%), who belongs to a middle-middle (36%), middle high (16%) or high (8%) socio-economical level, and who receives the following diagnoses (ICD-10): depressive episode, unipolar (62%) or bipolar (4%), depressive type adaptive disorder (24%) and dysthymia (10%).

The results are shown in table 1. All the correlations calculated are statistically significant (p = 0.000). When the internal correlations between the objective scores of the psychiatrist represented by an HRSD-17 are observed, it is found that the total score has a highly significant correlation with the «melancholic» and «anxious» syndrome factor of the HRSD-17, although it is much higher with the latter. This difference is statistically significant (table 2). However,

the syndrome factor «anxious» shares a larger proportion of variance (r^2) with the total score (85%) than with the «melancholic» one (68%).

The behavior of the subjective impression of severity by the psychiatrist, represented by the CGI is, however, quite different. It has an equally high correlation as the HRSD-17-Tot and the HRSD-Mel, and a slightly lower one (but, in any case, highly statistically significant) than the HRSD-17-Anx. The difference existing between the correlations of the CGI with the HRSD-17-Mel and with the HRSD -17-Anx are statistically significant (Table 2). In fact, the CGI shares twice the variance of the melancholic factor of the HRSD-17 than that of the anxious one. The correlations of the CGI are very similar with the melancholic factor and with the total score of the HRSD-17 (gl = 97; t = 0.72; ns).

The behavior of the subjective impression of disease by the patient, represented by the score reached on the VAS, is different. It has a high and significant correlation with the HRSD-17-Tot and the subscales of HRSD-17-Mel and HRSD-17-Anx. However, the patients given an equal evaluation to both the intensity of their anxious symptoms and their melancholic ones. They do not seem to establish dif-

Table 2	Comparisons between correlation coefficients.			
	HRSD-17-Mel	HRSD-17-Anx	gl	t
HRSD-17-Tot	0.82	0.92	97	13.10*
CGI	0.81	0.61	97	03.74*
VAS	0.59	0.54	97	00.67#

*p = 0.000; #n.s.

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ferences. In fact, the correlations obtained with both factors are similar, with no statistically significant differences (table 2).

DISCUSSION AND CONCLUSIONS

Psychiatrists tend to condition their subjective impression of severity of a depression (CGI) by the intensity of the symptoms included under the section of «melancholic». This is why they tend to consider a patient more severe the greater the perception of the «melancholic» factor and not so much regarding the anxious one.

However, the patients tend to subjectively perceive (VAS) their severity based on the global depressive syndrome complex, without establishing differences between their symptoms. Thus their scores on the VAS have a similar correlation with both the total score of the HRSD-17 as well as with those of the «anxious» and «melancholic» syndrome subscales.

However, when the psychiatrists use the HRSD-17 to evaluate the patients, they act differently. They systematically review each item of the scale one by one, including symptoms which otherwise may have gone unnoticed or which they may have not paid as much attention to (anxious and anxious-dependent). The global evaluation of severity of the clinical picture obtained in this way and represented by the total score of the HRSD-17 is thus more conditioned by the internal structure of the scale than by the tendency of the psychiatrist to give greater importance to the melancholic symptoms. However, some problems must be considered when using the HRSD-17 to obtain objective data of depressive symptom intensity. This difficulty is found in the fact that the total score of the HRSD-17, as is known, is strongly conditioned by the combination of non-melancholic symptoms, that is, by the anxious and anxious-dependent ones.[15] This is important when it is taken into account that the HRSD-17 has been and still is greatly used in clinical trials.[16] It has been shown by the clinical experience, and there is evidence systematically collected in this regards, that anxious symptoms improve before the purely depressive ones.[17] If it is considered that 65% of the items on the HRSD-17 are anxious or anxious-dependent, and that the intensity of the total score of the HRSD-17 correlates and shares an important part of the variance with such anxious symptoms, the suspicion can be maintained that many of the early improvements (in one or two weeks) attributed to the antidepressants in the different clinical trials, and in the daily clinical practice, are not as such, but simply a simple relief of the anxiety. This relief may be the cause of the close to 50% reduction on the initial HRSD-17-Tot although the melancholic symptoms have not undergone any substantial decrease. This would justify the doubts on some of the early improvements attributed to the antidepressive effect of such drugs and would support the

idea that it is necessary to elaborate instruments that are not influenced in such a way by anxiety, to make such investigations more reliable. In fact, currently there is a tendency to use other instruments that are less conditioned by anxiety in such trials, such as the Montgomery-Asberg scale;[15] which, on the other hand, has a high and significant correlation with me HRSD.[18-21]

Such is the conclusion that can be drawn from the results of the present study. However, caution should be taken before accepting them without any critical review. This research has a weakness that should be considered. It was performed on data obtained from a cross-sectional study. This makes it possible to establish the relationship that exists between one type of symptom and another, the importance given to them by the psychiatrist and patients and the influence that may be introduced by the internal structure of the HRSD-17 on their total score. The variability of symptom intensity investigated is sufficiently extensive and has an approximately normal distribution (fig.1), which this makes it possible to perform this type of analysis. However, the conclusions drawn in the discussion of the results also must be confirmed in a longitudinal study. Nonetheless, the design of the present research has not allowed for this. A replication to this study on a sample of patients followed up over time is necessary in order to be able to verify the evolution of the different syndrome complexes studied herein under the action of the psychodrugs and the suggested influence of the biases introduced by the measurement instruments used.

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