Assessment of the Use of Hamilton Rating Scale in Egyptian Major Depressive Patients

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Hamilton Rating scale for depression (HRSD) was applied to 120 Egyptian major depressive patients. Mean total HRSD score was found to be 30.3 (± 5.62). The most frequent symptoms reported were depressed mood, limitation of work and activities, anxiety-psychic, and somatic symptoms-GIT. The opinion of Egyptian psychiatrists was sought as to the appropriateness of HRSD items as applied to Egyptian major depressive patients. Items considered to need modification included genital symptoms, agitation, insight, somatic symptoms-GIT, helplessness, depersonalisation and derealisation.

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Introduction

The Hamilton rating scale for depression is the most widely used observer-rating scale (Ashcroft et al, 1978). This scale was designed by Max Hamilton (1960,1967). The original version consisted of 17 items and was later increased to 24 items by G. Klerman. The scale is not meant to be a diagnostic instrument (Peck and Dean, 1988). Its use is to quantify the results of an interview to facilitate the assessment of such factors as depth of depression and response to treatment (Aschroft et al, 1978). The most obvious difficulty is that the efficiency of the scale depends to such a large extent on the skill of the interviewer, his commitment, interest and bias.

One of the disadvantages of HRSD is that there are no ranges of severity literally postulated in the scale (Arafa,1978). This poses even greater difficulty when the scale is used in different cultures. For example, Arafa (1978) found that the mean for his sample of 100 depressed patients (both neurotic and endogenous depression) to be 22.4 (± 5.9) and considered this mean to be rather low. He postulated that this might be due to transcultural differences in the evaluation and measurement of emotion. Moreover, the criteria of severity of the different symptoms were originally developed in Europe and may not be automatically applicable to Egyptian patients in view of the considerable differences in cultural background.

In view of the above, this study aimed at examining the application of HRSD to Egyptian major depressive patients in two ways. First to establish ranges of total score of the scale for this diagnostic category in Egyptians as well as examining the individual items of the scale. Second, to assess the appropriateness of HRSD items as applied to

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Egyptian depressives as viewed by Egyptian psychiatrists.

Subjects and Method

Residents working in Kasr-El Aini University Hospital, Department of Psychiatry were asked to refer any patient diagnosed as major depression to one of the research team.

Diagnosis was confirmed by applying DSM-IIIR criteria (APA,1987). To obtain a group as homogeneous as possible, bipolar patients were excluded. Patient's consent to participate in the study was sought. Thus the study included 120 patients. Severity was judged on clinical grounds to be mild, moderate or severe. The subject group was further subdivided according to recurrence (single episode-recurrent episodes), duration (<6 months->6months), presence or absence of psychotic features.

HRSD was applied to each patient by one of the research team. At least 5 cases were assessed by a pair of investigators together with discussion of any differences in opinion, to ensure reliability.

To evaluate the use of HRSD in Egyptian depressives, 15 psychiatrists of more than 5 years of experience were asked to state their opinion as to the appropriateness/inappropriateness of each individual HRSD item as specified in the scale. If considered inappropriate, the psychiatrist was asked to give suggestions as to how it could be changed, or any other comments.

They were also asked for any other suggestions or comments as regards the scale as a whole.

Results

The sample consisted of 65 male patients (54.17%) and 55 females (45.83%). Mean age was 35.93 (±12.78) years. 12 patients had mild depression (10%), 46 had moderate (38.33%) and 62 severe depression (51.67%). 53 patients had a single episode (44.17%) and 67 gave a history of recurrent episodes (55.83%). 28 patients had major depression with psychotic features, all mood congruent (23.33%) and 92 without psychotic features (76.67%). As regards duration, the current episode lasted less than 6 months in 82 patients (68.33%) and more than 6 months in 38 patients (31.67%).

The mean total HRSD score was found to be 30.3 (±5.62) for all the sample. Table 1 shows the mean total HRSD score and standard deviation for patients according to the severity of their depression as judged on clinical grounds.

Table 2 shows the frequency of the individual HRSD items (i.e. presence or absence of each symptom in the patient regardless of their score). It also shows the mean and standard deviation of each item. It must be born in mind that some of the items are scored on a scale of 0 to 4 whereas others are scored from 0 to 2.

Results of the unpaired t-test applied to the total HRSD score of the different subgroups of the sample are shown in table 3. significant differences are found between the patients with and those

Table 1

Total HRSD Score for Depressive Patients According to Degree of Severity

Severity of Dep.	N	Mean ±S.D.
Mild	12	23.583 ± 4.441
Moderate	46	27.804 ± 4.842
Severe	62	33.452 ± 4.12

Table 2
Frequency, Mean, and Standard Deviation of Each HRSD Item in the Depressive Patients

HRSD item	Frequency		Mean	Standard deviat.
	No. of Pts.	%		
Depression	120	100	2.86	0.63
Work & activities	120	100	3.24	0.79
Anxiety-psychic	115	95.83	1.74	0.96
Somatic symp-Gen	113	94.17	1.33*	0.59
Hopelessness	111	92.5	1.53	0.85
helplessness	109	90.83	1.33	0.77
Somatic symp-G.I.T.	109	90.83	1.08*	0.51
Insomnia early	100	83.33	1.53*	0.77
Isomnia middle	98	81.67	1.27*	0.74
Loss of Weight	97	80.83	1.41*	0.78
Insomnia late	94	78.33	1.4*	0.8
Suicide	90	75	1.37	1.03
Worthlessness	89	74.17	1.23	1.01
Anxiety-somatic	89	74.17	1.22	0.92
Genital symp.	85	70.83	1.22*	0.87
Diurnal Variation	85	70.83	1.19	0.87
Retardation	77	64.17	1.02	0.98
Agitation	65	54.17	0.77*	0.8
Paranoid symptoms	65	54.17	1.34	1.49
Feelings of guilt	61	50.83	0.9	1.04
Hypochondriasis	43	35.83	0.62	0.93
Deperson. & Derealis.	31	25.83	0.38	0.76
Obsess. & comp. symp.	27	22.5	0.33*	0.65
Insight	7	5.83	0.07*	0.28

* Item scored from 0 to 2.

Table 3
Unpaired t-Test Between Total HRSD Score of Different Depressive Subgroups

Subgroups	df	t	p
Recurrence:			
Single episode - recurrent	118	0.821	0.44
Psychotic features:			
with - without	118	3.002	0.003
Duration:			
< 6 months. -> 6 months	118	0.642	0.522
Severity:			
mild - moderate	56	-2.732	0.0084
mild - severe	72	-7.503	<0.0001
moderate severe	106	-6.535	<0.0001

Table 4
Inappropriate HRSD Items According to Psychiatrists

	No.	%	Suggestions & Comments
Dep. mood	2	13.3	- addition of irritable & angry moods - co. of dep. after other complaint (1) dep. mood is the outstanding co . (2)
Guilt	3	20	- addition of guilty ideas of reference - Unsuitable because of religious background - needs reformulation - not frequent
Suicide	2	13.3	- wishes he were dead (1).. then grade further
Insomnia early	0	0	- addition of hypersomnia
Insomnia middle	0	0	- uncommon
Insomnia late	1	6.7	- ascribed by patients to dawn prayers
Work & activit.	1	6.7	- rate hospital & non- hospital pts. separately
Retardation	0	0	- not so frequent
Agitation	8	63.3	- "playing with" + hand wringing ... (1) restlessness, easy provocation (2)
Anxiety psychic	4	26.7	- subj. tension = worrying about minor matters - appreh. attitude (4), Fears expressed (3).
Anxiety symp. GIT	5	30	- list more possible symptoms - change to - appetite & omit laxatives from 2. - not a core symtom.
Som. symp. General	4	26.7	- needs clarif. - cancel as it is included under other items - not specific for dep.
Genital symp.	9	60	- difficult to elicit - list more possible symptoms - define degree of severity - cancel menstrual disurbances
Hypochondriasis	2	13.3	- can be omitted -exclude physical illness
Loss of weight	5	33.3	- subjective loss is more important than weighing -addition of weight gain - items 12 & 16 can be considered eating disorder
Insight	6	40	-1 &2 can be interchanged, culture should be considered
Diurnal variat.	2	13.3	-not noticeable in Egyptian depressives -specify which
Deperson . & Dereal.	5	33.3	-define grades of severity -add grade for delusions of deper. &dereal. -uncommon
Paranoid symp.	3	20	-hallucinations can be included -ideas of refer. out of worthless. = worthless. del. of refer. and persec. out of guilt = guilt.
Obs. & comp. symp.	3	20	- obs. with dep. content should be graded as most severe. -uncommon
Helplessness	5	33.3	- vague, needs reformulation - uncommon
Hopelessness	4	26.7	- needs reformulation - too general -should ask about illness and life in general.
Worthlessness	3	20	-needs reformulation -(2) & (3) are difficult to differentiate.

without psychotic features and also between the different grades of severity.

15 psychiatrists responded to the questionnaire dealing with the appropriateness of each HRSD item. Table 4 shows the number of psychiatrists who found each item inappropriate with relevant suggestions and comments.

One psychiatrist suggested the addition of items to assess phobic fears and panic attacks. One proposed some separation of items, or a system of scoring to aid the psychiatrist to differentiate between the different types of depression (e.g. endogenous vs. situational or reactive depression) as far as HRSD results show.

Discussion

The results of the present study on a group of 120 Egyptian major depressive patients show that the mean total HRSD score was 30.3 (±5.62). Mildly depressed patients had a mean of 23.58 (±4.44), moderately depressed 27.8 (±4.84) and severely depressed patients 33.45 (±4.12). On comparing our results with previous work on Egyptian depressives using HRSD, it was observed that our mean total HRSD was relatively higher than that obtained by Arafa (1978) which was 22.4 (±5.9) and El-Ray's (1988) which was 22.6 (±8.78). However, Arafa's sample consisted of 100 depressives, only 20 of which may be considered major depressives, which may explain why his mean was lower. El Ray's sample consisted of 10 manic depressive, depressive patients, which was a relatively small number and the standard deviation was quite high.

The HRSD items most frequently present in this sample were depressed mood, work and activities, anxiety - psychic, somatic symptoms- G.I.T. items scored infrequently were hypochondriasis, depersonalisation & derealisation, obsessive & compulsive symptoms and insight. In general, items that were present frequently were also those who had higher mean scores.

As regards the individual HRSD items. Arafa (1978) found that the most frequent symptoms were depressed mood, anxiety-psychic, anxiety-somatic, work and activities difficulty, suicidal trends and somatic symptoms - general. El Ray (1988) found that the highest mean scores were for work and activities difficulty, feelings of guilt, anxiety psychic, insomnia-early and depressed mood. Our results were comparable with those of Arafa, in spite of the difference in sampling. The only remarkable difference was in suicide, which was scored as present in 93% of his patients, the majority of whom were neurotic and in only 75% in the present study. It is probable that neurotic patients express the milder suicidal trends easily, whereas suicidal gestures and serious attempts are relatively rare in all Egyptian depressives. El Rashidi (1992) has postulated that this may be due to the protective effect of the sense of belonging and collective ego presumed to be present in traditional societies. Okasha (1984) stated that in his experience,physiological changes in the form of insomnia (not necessarily early morning awakening), anorexia, and loss of libido are common presentations of the illness. The high frequency of somatic symptoms has been observed in work dealing with patients from non-western societies (Okasha, 1967; Teja et al,1971). This has been explained by an incapacity to verbalise feelings in developing societies so that patients tend to stress the somatic con-

comitans of emotions (Leff,1973; Wittkower & Prince, 1974). Teja et al (1971) also suggest that in psychiatric illnesses, symptoms which are assigned the status of an illness by the group to which the patient belongs, as also the expectancy on the part of the patient of what the local medical men consider as an illness, become important determinants in the choice of symptoms. The chance of purely psychological symptoms being dismissed as not of much consequence are high in less sophisticated groups. Thus, the patient uses the medium of the body more often for expressing inner tensions.

Other noteworthy items include the high frequency of anxiety - psychic, indicating its presence in major depression as well as neurotic depression. This has also been reported by Hamilton (1989) and described as differing from the classic descriptions of major depression. Also, hopelessness and helplessness were frequent, but their scores were relatively low, indicating that they were usually not spontaneously reported by the patient. This may be explained by general trends in the Egyptian society: future and fate are determined by God, therefore there is always room for some hope, and dependency is an accepted attitude, even among normals, thus helplessness is perhaps less disturbing to the Egyptian patient. Radford et al (1991) have also emphasized that the interaction of culture and the psychological state is an important influence on the way an individual makes decisions. Depression was found to have a lesser effect on decision making in Japanese patients where decision making is a group activity, than in Australians where decision making is an individual responsibility. Guilt was also found to be relatively infrequent. Shaheen and Rakhawy (1971) observed that, in Egypt, projected blame is commoner than guilt, whereas El-Islam (1969) believed that this projection or putting the blame (on God or sorcery) are only a mask for deeper seated guilt feelings. The low frequency of hypochondriasis indicates that the frequency of somatic symptoms is not because the depressive patient wishes to assume a sick role, but rather that body language is a common mode of expression in the Egyptian society. Insight was the most infrequent item to be scored, probably indicating that the method of scoring this symptom was inappropriate to the Egyptian patients.

Subgrouping of the sample showed that there existed significant differences as regards the total HRSD score between depressives with and without psychotic features , and between those with different grades of severity. The presence of significant differences between subgroups of the depressive group may indicate that HRSD has the potential ability to discriminate between subgroups. Further work may help in identifying specific items or groups of items which may aid in such discrimination.

Opinions of Egyptian psychiatrists as regards the appropriateness / inappropriateness of HRSD items as applied to Egyptian depressives showed that there were a number of items considered inappropriate by several psychiatrists. Among those were genital symptoms, agitation, insight, somatic symptoms - G.I.T., helplessness and depersonalisation & derealisation. In consideration to these opinions, it appears that certain HRSD items should be modified to be more adapted to use in Egypt. We propose the following modification:

Agitation:

0. None 1. Playing with hands, nail-biting, hand-wringing, etc. 2. Restlessness, pacing up and down, intolerance to the interview.

Anxiety-psychic:

0. No difficulty 1. Subjective tension, worrying about minor matters. 3. Fears expressed without questioning 4. Apprehensive attitude.

Somatic symptoms-G.I.T:

0. None 1. Loss of appetite, distension, epigastric discomfort, vomiting, ... 2. Difficulty in eating without urging

Genital symptoms (loss of libido, weak or absent erection):

0. Not present 1. Present infrequently and/ or not disturbing to the patients 2. Often present and/or disturbing 3. Present all the time and/or major complaint.

Loss of Weight:

Omit B

Insight:

0. Acknowledges being depressed and ill 1. Acknowledges illness but attributes cause to bad food, climate, overwork, virus, need for rest, God, destiny.
2. Believes he is under an evil spell
3. Denies being ill at all.

The present work, through examination of a sample of 120 major depressive patients, proposes to put forward a set of norms for HRSD, a tool often used in clinical practice to assess depression: mean, standard deviation and items frequently and infrequently present in Egyptian major depressive patients.

Quantification of depression appears difficult without establishing such norms for a given diagnostic category in a certain culture. This study also suggests the advisability of modifying the tool, following the suggestions of experienced psychiatrists, so as to take into consideration possible cultural differences leading to confounding results on application of the original tool.

References

American Psychiatric Association (1987). Diagnostic and statistical Manual for Mental Disorder. 3rd ed. Revised. Washington: A.P.A.

Arafa M. (1978) A Clinical Study of Depression in Egyptian Patients with Cross-national Comparison. Unpublished M.Sc. thesis. Cairo University.

Ashcroft G.W., Blackburn I.M., Cundall R.L. (1978) Affective disorders. In A. Forrest, J. Affleck, A. Zeally. (Eds.) Companion to Psychiatric Studies. 2nd ed. Edinburgh: Churchill Livingstone.

El Islam M.E. (1969) Depression and guilt: A study at an Arab psychiatric clinic. *Social Psychiat .*, **4**: 56-58.

El Rashidi A. (1992) Suicidal behaviour in French and Egyptian patients admitted to a psychiatric hospital. *Egypt. J. Psychiat.*, **15**: 201-207.

El Ray L.A. (1988) Phenomenological Dimensions of Depression. Unpublished M.D. thesis. Cairo University.

Hamilton M. (1960) A rating scale for depression. *J. Neuro. Neurosurg. Psychiat.*, **23**: 56-62.

Hamilton M. (1967) Development of a rating scale for primary depressive illness. *Brit. J. Soc. Clin. Psychol.*, **6**: 278-296.

Hamilton M. (1989) Frequency of symptoms in melancholia (depressive illness). *Brit. J. Psychiat.*, **154**: 201-206

Leff J.P. (1973) Culture and the differentiation of emotional states. *Brit. J. Psychiat.*, **123**: 299-306.

Okasha A. (1967) Essentials of psychiatry. Cairo: Arab Writer Printing and Publishing House.

Okasha A. (1984) Depression and Suicide in Egypt. *Egypt.J. Psychiat.*, 7: 33-45.

Peck D.F., Dean C. (1988) Measurement in psychiatry. In R.E. Kendell & A.K. Zealley (Eds.) Companion to Psychiatric Studies. 4th ed. Edinburgh: Churchill Livingstone.

Radford M.H.B., Nakane Y., Ohta Y., Mann L., Kalucy R.S. (1991) Decision making in clinically depressed patients. *J. Nerv. Ment. Dis.*, 179: 711-719.

Shaheen O., Rakhawy Y.T. (1971) A.B.C. of psychiatry. Cairo: Al-Nasr Modern Bookshop.

Teja J.S., naran R.I., Aggarawal A.K. (1971) Depression across cultures. *Brit. J. Psychiat.*, 119: 253-260.

Wittkower E.D., Prince R. (1974) A review of transcultural psychiatry. In S. Arieti (ed.) American Handbook of Psychiatry. 2nd ed. Vol. 1. New York: Basic Books.

L' Evaluation de l'Utilisation de l'Echelle d'Estimation de Depression de Hamilton pour la Dépression Majeure chez les Malades Dépressés Egyptiens

L'Echelle d'Estimation de Depression de Hamilton a été appliquée à 120 malades égyptiens ayant une dépression majeure. Le moyen du score total de la série a été 30.3 (± 5.62).

Les plus fréquents symptômes reportés ont été l'humeur dépressés, la limitation d'activitée et de travail, les symptômes psychiques de l'anxiété, et les symptômes somatiques speciallement ceux qui concernent la voie gastro-intestinale.

L'opinion des psychiatres égyptiens concernant l'appropriation des differents points de l'Echelle a été recherché. Les divers points qui avaient besoin de modification ont été les symptômes génitaux, l'agitation, les symptômes somatiques gastro-intestinaux, l'impuissance, la dépersonalisation et la déréalisation.

استخدام مقياس هاميلتون للاكتئاب فى تقييم مرضى الاكتئاب الجسيم فى مصر

طبق مقياس هاميلتون للاكتئاب على (١٢٠) مريضاً نفسياً مصابون بالاكتئاب ووجد أن متوسط الدرجات التى حصلوا عليها على مقياس هاميلتون هو ٣٠,٣ (±٥,٦٢)، وكانت أكثر الأعراض تواتراً هى المزاج الاكتئابى، ونقص القدرة على النشاط والعمل، والقلق والأعراض الجسمية الخاصة بالجهاز الهضمى، وكان رأى عينة الأطباء النفسيين المصريين هو ملاءمة تطبيق المقياس على المرضى المصابين بالاكتئاب، كما تحتاج بعض بنود المقياس إلى تعديل وهى: الاضطرابات الجنسية، والتوتر النفسى الحركى، البصيرة والأعراض الجسمية الخاصة بالجهاز الهضمى، واضطراب أبعاد الذات واضطراب صورة الواقع.