Hamilton Rating Scale for Depression (HAM-D)

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Purpose One of the most frequently used instruments for evaluating depression in adults, the questionnaire allows clinicians to assess the nature and severity of mood disorders in patient populations. The scale is comprised of 21 items for inquiry, though only the first 17 are used in scoring. Each question examines a different symptom or aspect of depression, including: mood, guilty feelings, suicidal ideation, insomnia, agitation, and somatic symptoms. The scale is suitable for use in a variety of research and clinical settings, and can be applied as both a single-use instrument for measuring depression severity and as a tool for monitoring changes in depressive symptoms over the course of treatment. Items 4, 5, and 6 refer specifically to sleep, inquiring about insomnia prior to sleep onset, disturbed sleep in the middle of the night, and trouble falling back sleep in the early morning, respectively. Other items may be peripherally involved with sleep difficulties as they refer to fatigue, retardation, and somatic symptoms in general. It should be noted that there have been different iterations with longer, shorter, and one version with specific modifications for seasonal affective disorder [10].

Population for Testing The scale has been validated across a variety of studies, primarily in adult populations possessing major depressive disorder.

Administration The scale is administered through an interview conducted by a trained clinician. Its administration time will vary depending on the specific needs of the patient and the interviewer's preferred approach. On average, it should require approximately 10–15 min. Some have expressed concern regarding the interpretive nature of the instrument. The scale requires a trained clinician capable of distilling information regarding both frequency and intensity of symptoms into a single score, potentially making it inefficient for use in large research projects. To address this, a number of researchers (including Potts and colleagues [1]) have designed structured-interview versions of the HAM-D which can be administered in a variety of settings by interviewers without backgrounds in psychiatry. For even greater ease of use, a self-report, paper-and-pencil version is also available – the Hamilton Depression Inventory developed by Reynolds and Kobak [2]. Additional alternative versions include tests with fewer items and questionnaires with modified rating scales.

Reliability and Validity The psychometric properties of the HAM-D have been examined in a wide array of studies since its creation by Hamilton in 1960 [3]. One of the most recent reviews conducted by Bagby and colleagues [4] evaluated psychometric properties reported in 70 different articles, finding an internal reliability ranging from .46 to .97, an inter-rater reliability of .82 to .98, and a test–retest reliability of .81 to .98. Though scores for the scale as a whole appear to be quite high, studies examining inter-rater reliabilities and

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test–retest coefficients at the level of individual items have found values that are much lower. Others have criticized the scale as outdated in terms of the DSM-IV definition of depression and have claimed that its scoring is unclear. Overall, the HAM-D's tremendous staying power has made it the subject of studies both laudatory and critical in nature [5, 6]. Decisions regarding its psychometric suitability should be undertaken carefully and on a case-by-case basis. For one of Hamilton's final writings on the subject of depression and the selection of depression scales, turn to a review written by Hamilton and Shapiro in *Measuring Human Problems: A Practical Guide* [7].

Obtaining a Copy A copy of the original scale can be found in Hamilton [3]. A large number of modified versions are available from their respective designers.

Scoring Though all 21 items may be valuable for both research and clinical purposes, only the first 17 are used for scoring. During the interview, clinicians solicit patient reports on a variety of depressive symptoms and use their clinical expertise to assign each a score for severity. For the majority of questions, scores range from 0 to 4, with 4 representing more acute signs of depression. Several questions have ranges that extend only as high as 2 or 3. A total score is tallied and can then be compared with previous scores or can be contrasted with a pre-defined cutoff score. Over the decades, a number of values have been suggested as potential cutoffs – total scores to be used as indicators of remission. Though the cutoff of 7 suggested by Frank and colleagues [8] has become a consensus for determining remission, others suggest that it should be as low as 2 [9].

Hamilton Depression Rating Scale (HDRS)

PLEASE COMPLETE THE SCALE BASED ON A STRUCTURED INTERVIEW

Instructions: for each item select the one "cue" which best characterizes the patient. Be sure to record the answers in the appropriate spaces (positions 0 through 4).

1 **DEPRESSED MOOD** *(sadness, hopeless, helpless, worthless)*
- 0 |__| Absent.
- 1 |__| These feeling states indicated only on questioning.
- 2 |__| These feeling states spontaneously reported verbally.
- 3 |__| Communicates feeling states non-verbally, i.e. through facial expression, posture, voice and tendency to weep.
- 4 |__| Patient reports virtually only these feeling states in his/her spontaneous verbal and non-verbal communication.

2 **FEELINGS OF GUILT**
- 0 |__| Absent.
- 1 |__| Self reproach, feels he/she has let people down.
- 2 |__| Ideas of guilt or rumination over past errors or sinful deeds.
- 3 |__| Present illness is a punishment. Delusions of guilt.
- 4 |__| Hears accusatory or denunciatory voices and/or experiences threatening visual hallucinations.

3 **SUICIDE**
- 0 |__| Absent.
- 1 |__| Feels life is not worth living.
- 2 |__| Wishes he/she were dead or any thoughts of possible death to self.
- 3 |__| Ideas or gestures of suicide.
- 4 |__| Attempts at suicide (any serious attempt rate 4).

4 **INSOMNIA: EARLY IN THE NIGHT**
- 0 |__| No difficulty falling asleep.
- 1 |__| Complains of occasional difficulty falling asleep, i.e. more than ½ hour.
- 2 |__| Complains of nightly difficulty falling asleep.

5 **INSOMNIA: MIDDLE OF THE NIGHT**
- 0 |__| No difficulty.
- 1 |__| Patient complains of being restless and disturbed during the night.
- 2 |__| Waking during the night – any getting out of bed rates 2 (except for purposes of voiding).

11 **ANXIETY SOMATIC (physiological concomitants of anxiety) such as:**
gastro-intestinal – dry mouth, wind, indigestion, diarrhea, cramps, belching
cardio-vascular – palpitations, headaches
respiratory – hyperventilation, sighing
urinary frequency
sweating
- 0 |__| Absent.
- 1 |__| Mild.
- 2 |__| Moderate.
- 3 |__| Severe.
- 4 |__| Incapacitating.

12 **SOMATIC SYMPTOMS GASTRO-INTESTINAL**
- 0 |__| None.
- 1 |__| Loss of appetite but eating without staff encouragement. Heavy feelings in abdomen.
- 2 |__| Difficulty eating without staff urging. Requests or requires laxatives or medication for bowels or medication for gastro-intestinal symptoms.

6 INSOMNIA: EARLY HOURS OF THE MORNING
- 0 |__| No difficulty.
- 1 |__| Waking in early hours of the morning but goes back to sleep.
- 2 |__| Unable to fall asleep again if he/she gets out of bed.

7 WORK AND ACTIVITIES
- 0 |__| No difficulty.
- 1 |__| Thoughts and feelings of incapacity, fatigue or weakness related to activities, work or hobbies.
- 2 |__| Loss of interest in activity, hobbies or work – either directly reported by the patient or indirect in listlessness, indecision and vacillation (feels he/she has to push self to work or activities).
- 3 |__| Decrease in actual time spent in activities or decrease in productivity. Rate 3 if the patient does not spend at least three hours a day in activities (job or hobbies) excluding routine chores.
- 4 |__| Stopped working because of present illness. Rate 4 if patient engages in no activities except routine chores, or if patient fails to perform routine chores unassisted.

8 RETARDATION (slowness of thought and speech, impaired ability to concentrate, decreased motor activity)
- 0 |__| Normal speech and thought.
- 1 |__| Slight retardation during the interview.
- 2 |__| Obvious retardation during the interview.
- 3 |__| Interview difficult.
- 4 |__| Complete stupor.

9 AGITATION
- 0 |__| None.
- 1 |__| Fidgetiness.
- 2 |__| Playing with hands, hair, etc.
- 3 |__| Moving about, can't sit still.
- 4 |__| Hand wringing, nail biting, hair-pulling, biting of lips.

10 ANXIETY PSYCHIC
- 0 |__| No difficulty.
- 1 |__| Subjective tension and irritability.
- 2 |__| Worrying about minor matters.
- 3 |__| Apprehensive attitude apparent in face or speech.
- 4 |__| Fears expressed without questioning.

13 GENERAL SOMATIC SYMPTOMS
- 0 |__| None.
- 1 |__| Heaviness in limbs, back or head. Backaches, headaches, muscle aches. Loss of energy and fatigability.
- 2 |__| Any clear-cut symptom rates 2.

14 GENITAL SYMPTOMS (symptoms such as loss of libido, menstrual disturbances)
- 0 |__| Absent.
- 1 |__| Mild.
- 2 |__| Severe.

15 HYPOCHONDRIASIS
- 0 |__| Not present.
- 1 |__| Self-absorption (bodily).
- 2 |__| Preoccupation with health.
- 3 |__| Frequent complaints, requests for help, etc.
- 4 |__| Hypochondriacal delusions.

16 LOSS OF WEIGHT *(RATE EITHER a OR b)*

	a) According to the patient:	b) According to weekly measurements:
0	|__| No weight loss.	|__| Less than 1 lb weight loss in week.
1	|__| Probable weight loss associated with present illness.	|__| Greater than 1 lb weight loss in week.
2	|__| Definite (according to patient) weight loss.	|__| Greater than 2 lb weight loss in week.
3	|__| Not assessed.	|__| Not assessed.

17 INSIGHT
- 0 |__| Acknowledges being depressed and ill.
- 1 |__| Acknowledges illness but attributes cause to bad food, climate, overwork, virus, need for rest, etc.
- 2 |__| Denies being ill at all.

Total score: |__|__|

This scale is in the public domain.

References

1. Potts, M. K., Daniels, M., Burnam, M. A., & Wells, K. B. (1991). A structured interview version of the Hamilton Depression Rating Scale: evidence of reliability and versatility of administration.
2. Reynolds, W. M., & Kobak, K. A. (1995). *Hamilton Depression Inventory*. Odessa, FL: Psychological Assessment Resources.
3. Hamilton, M. (1960). A rating scale for depression. *Journal of Neurology, Neurosurgery, and Psychiatry, 23*, 56–62.
4. Bagby, R. M., Ryder, A. G., Schuller, D. R., & Marshall, M. B. (2004) The Hamilton Depression Rating Scale: has the gold standard become a lead weight? *American Journal of Psychiatry, 161*(12), 2163–2177.
5. Hedlund, J. L., & Vieweg, B. W. (1979). The Hamilton Rating Scale for Depression: a comprehensive review. *Journal of Operational Psychiatry, 10*, 149–165.
6. Knesevich, J. W., Biggs, J. T., Clayton, P. J., & Ziegler, V. E. (1977). Validity of the Hamilton Rating Scale for Depression. *The British Journal of Psychiatry, 131*, 49–52.
7. Hamilton, M., & Shaprio, C. M. (1990). Depression. In D. F. Peck & C. M. Shapiro (Eds.), *Measuring Human Problems* (25–65). Great Britain: John Wiley & Sons.
8. Frank, E., Prien, R. F., Jarrett, R. B., Keller, M. B., Kupfer, D. J., Lavori, P. W., Rush, A. J., & Weissman, M. M. (1991). Conceptualization and rationale for consensus definitions of terms in major depressive disorder: remission, recovery, relapse, and recurrence. *Archives of General Psychiatry, 48*(9), 851–855.

9. Zimmerman, M., Posternak, M. A., & Chelminski, I. (2005). Is the cutoff to define remission on the Hamilton Rating Scale for Depression too high? *The Journal of Nervous and Mental Disease, 193*(3), 170–175.
10. Williams, J. B. W., Link, M. J., Rosenthal, N. E., Terman, M. (1998). Structured Interview Guide for the Hamilton Depression Rating Scale, Seasonal Affective Disorders Version (SIGHSAD). New York Psychiatric Institute, New York.

Representative Studies Using Scale

Reynolds, C. F., Dew, M. A., Pollock, B. G., Mulsant, B. H., Frank, E., Miller, M. D., Houck, P. R., Mazumdar, S., Butters, M. A., Stack, J. A., Schlernitzauer, M. A., Whyte, E. M., Gildengers, A., Karp, J., Lenze, E., Szanto, K., Bensasi, S., & Kupfer, D. J. (2006). Maintenance treatment of major depression in old age. *New England Journal of Medicine, 354*(11), 1130–1138.

Brecht, S., Kajdasz, D., Ball, S., & Thase, M. E. (2008). Clinical impact of duloxetine treatment on sleep in patients with major depressive disorder. *International Clinical Psychopharmacology, 23*(6), 317–324.

Levitan, R., Shen, J., Jindal, J., Driver, H. S., Kennedy, S. H., & Shapiro, C. M. (2000). A preliminary randomized double-blind placebo controlled trial of tryptophan combined with fluoxetine in the treatment of major depression: anti-depressant and hypnotic effects. *Journal of Psychiatry & Neuroscience, 25*, 337–346.