

Appendix 9. Instruments for assessing depression

In depressive orders is frequent to use scales as instruments for measuring the severity of the depression and its response to treatment. Their objective is the symptomatic assessment of the patient within a certain time frame, thereby allowing each item to be rated and obtaining a final score. They have no diagnostic aim, which should be done based on the psychopathological information obtained in the clinical interview.

Observer-evaluated scales are those in which an evaluator asks about each one of the items and assesses them. They should be filled out after the clinical interview, and they require high levels of training and experience. The self-assessment scales or questionnaires can be read by the interviewer or by the patient himself, but it is the latter who chooses which of the items best reflects his state.

The scales used the most in research studies are the following:

- ~ Beck Depression Inventory¹⁷²
- ~ Hamilton Rating Scale for Depression¹⁷³
- ~ Montgomery-Asberg Depression Rating Scale¹⁷⁴

Beck Depression Inventory (BDI)

It is a self-evaluation scale that fundamentally assesses the clinical symptoms of melancholia and the intrusive thoughts present in depression. It is the one that shows the greatest percentage of cognitive symptoms, and the absence of motor symptoms and of anxiety should also be noted. It is usually used to assess the severity of the illness. The original version from 1961 consists of 21 items¹⁷², and two revisions were subsequently published, the BDI-IA¹¹⁶ in 1979 and the BDI-II in 1996¹⁷⁵. This scale was adapted and validated in Spanish in 1975¹⁷⁶.

The original version is based on the patient's descriptions about various items: mood, pessimism, feeling of failure, dissatisfaction, guilt, irritability, suicidal ideas, weeping, social isolation, indecision, changes in the physical look, difficulty on the job, insomnia, fatigability, loss of appetite, weight loss, somatic concern and loss of libido. In version II, the assessment of the physical appearance, weight loss, somatic concern and difficulty on the job were replaced by agitation, difficulty at concentrating, loss of energy and feelings of uselessness¹⁷⁵. In most clinical trials included in the NICE guideline, the first version is used.

Each item is assessed from 0 to 3, and the total score is 63 points. There is no consensus about the cut-off points, wherefore different cut-off points and intervals are used to define levels of severity. The cut-off points recommended by the American Psychiatric Association are the following¹⁷⁷:

| | Absent or minimal | Mild | Moderate | Severe |
|-----------------|-------------------|-------|----------|--------|
| APA 2000 | 0-9 | 10-16 | 17-29 | 30-36 |
| 13-item version | 0-4 | 5-7 | 8-15 | > 15 |

Hamilton Rating Scale for Depression (HAM-D)

The HAM-D or Hamilton Rating Scale for Depression is an observer-rated scale designed to measure the intensity or severity of depression, and it is one of the most-used for monitoring the evolution of the symptoms in both clinical practice and research. The time frame of the assessment corresponds to the time when it is applied, except for some items, such as those pertaining to sleep, which refer to 2 days prior.

The original version is formed by 21 items and was published in 1960¹⁷³. There is a reduced version of 17 items of the same author¹⁷⁸, another version of 24 items¹⁷⁹ and a 6-item version consisting of depressed mood, feelings of guilt, work and activities, inhibition, psychic anxiety and somatic symptoms taken from the 17-item¹⁸⁰ version. The Spanish version of the scale was validated in 1986¹⁸¹, and a comparative psychometric assessment of the 6-, 17- and 21-item versions¹⁸² was subsequently performed.

The items included depressed mood; feelings of guilt; suicide; early, middle and late insomnia; work and activities; inhibition; agitation; psychic anxiety and somatic anxiety; gastrointestinal somatic symptoms; general somatic symptoms; sexual symptoms (sexual dysfunction and alterations of menstruation); hypochondria; weight loss and ability to understand. The additional items in the 21-item version are diurnal variation, depersonalisation and derealization, paranoid symptoms and obsessive-compulsive symptoms.

This scale is difficult to administer to the physically ill due to the excessive weight of the anxiety symptoms and somatic symptoms. It provides an overall severity score of the depressive symptoms and a score in 3 factors or indices: melancholia, anxiety and sleep. The scores in each one of the indices are obtained by totalling the scores of the component items: melancholia (items 1, 2, 7, 8, 10 and 13), anxiety (items 9-11) and sleep (items 4-6). There are no cut-off points defined for the scores in these indices. The overall score is obtained by totalling the scores of each item, with a score range in the 17-item scale that goes from 0 to 54 in the Spanish version. The cut-off points for defining the severity levels of depression recommended by the American Psychiatric Association¹⁷⁷ are the following:

| | No depression | Mild/minor | Moderate | Severe | Very severe |
|-----------|---------------|------------|----------|--------|-------------|
| APA, 2000 | 0-7 | 8-13 | 14-18 | 19-22 | >23 |

Hamilton Rating Scale for Depression (validated by Ramos-Brieva and assoc.¹⁸¹)

| Items | Operational assessment criteria |
|--|--|
| 1. Depressed mood (sadness, hopeless, helpless, worthless) | <p>0. Absent</p> <p>1. These feeling states are indicated only on questioning.</p> <p>2. These feeling states spontaneously reported verbally.</p> <p>3. Communicates feeling states communicated non-verbally, i.e. through facial expression, posture, voice and tendency to weep.</p> <p>4. Patient reports these feeling states in his/her spontaneous verbal and non-verbal communication.</p> |
| 2. Feelings of guilt | <p>0. Absent</p> <p>1. Self-reproach, feels he/she has let people down.</p> <p>2. Ideas of guilt or rumination over past errors or sinful deeds.</p> <p>3. Present illness is a punishment. Delusions of guilt.</p> <p>4. Hears accusatory or denunciatory voices and/or experiences threatening visual hallucinations.</p> |
| 3. Suicide | <p>0. Absent</p> <p>1. Feels life is not worth living.</p> <p>2. Wishes he/she were dead or any thoughts of possible death to self.</p> <p>3. Suicidal ideas or gesture.</p> <p>4. Attempts at suicide (any serious attempt, rate 4).</p> |
| 4. Insomnia early in the night | <p>0. Absent</p> <p>1. Complains of occasional difficulty falling asleep, i.e. more than _ hour.</p> <p>2. Complains of nightly difficulty falling asleep.</p> |
| 5. Insomnia in the middle of the night | <p>0. Absent</p> <p>1. Patient complains of being restless during the night.</p> <p>2. Waking during the night – any getting out of bed rates 2 (except for justified purpose: voiding, taking or giving medication, etc.).</p> |
| 6. Insomnia in the early hours of the morning | <p>0. Absent</p> <p>1. Waking in early hours of the morning but goes back to sleep.</p> <p>2. Unable to fall asleep again if he/she gets out of bed.</p> |
| 7. Work and activities | <p>0. Absent</p> <p>1. Thoughts and feelings of incapacity. Fatigue or weakness related to activities, work or hobbies.</p> <p>2. Loss of interest in activity, hobbies or work – either directly reported by the patient or indirect in listlessness, indecision and vacillation.</p> <p>3. Decrease in actual time spent in activities or decrease in productivity.</p> <p>4. Stopped working because of present illness</p> |
| 8. Retardation (slowness of thought and speech, impaired ability to concentrate, decreased motor activity) | <p>0. Normal speech and thought.</p> <p>1. Slight retardation during the interview.</p> <p>2. Obvious retardation during the interview.</p> <p>3. Interview difficult.</p> <p>4. Complete stupor.</p> |
| 9. Agitation | <p>0. None</p> <p>1. Fidgetiness.</p> <p>2. Playing with hands, biting nails/lips, pulling hair, etc.</p> |
| 10. Psychological anxiety | <p>0. No difficulty.</p> <p>1. Subjective tension and irritability.</p> <p>2. Worrying about minor matters.</p> <p>3. Apprehensive attitude apparent in face or speech.</p> <p>4. Fears expressed without questioning.</p> |

| Items | Operational assessment criteria |
|---|--|
| 11. Somatic anxiety | <p>0. Absent 1. Mild. 2. Moderate. 3. Severe. 4. Incapacitating.</p> <p>Physiological concomitants of anxiety such as:</p> <ul style="list-style-type: none"> ~ gastro-intestinal: dry mouth, wind, diarrhoea, belching, cramps. ~ Cardiovascular: palpitations, headaches. ~ Respiratory: hyperventilation, sighing. ~ Urinary frequency. ~ Sweating. |
| 12. Gastrointestinal somatic symptoms | <p>0. None. 1. Loss of appetite but eating without encouragement. Heavy feeling in abdomen. 2. Difficulty eating without being encouraged. Requests or requires laxatives or medication for gastrointestinal symptoms.</p> |
| 13. General somatic symptoms | <p>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.</p> |
| 14. Genital symptoms | <p>0. Absent 1. Mild. 2. Severe. 3. Incapacitating.</p> <p>Symptoms such as:</p> <ul style="list-style-type: none"> ~ Loss of libido. ~ Menstrual disturbances. |
| 15. Hypochondriasis | <p>0. Not present. 1. Self-absorption (bodily). 2. Preoccupation with health. 3. Frequent complaints, requests for help, etc. 4. Hypochondriacal delusions.</p> |
| 16. Loss of weight (Rate either A or B) | <p>A. According to patient statements (first evaluation)</p> <p>0. No weight loss. 1. Probable weight loss associated with present illness. 2. Definite weight loss (according to patient).</p> <p>B. According to weekly measurements by psychiatrist (subsequent evaluations)</p> <p>0. Less than 500-g weight loss in one week. 1. Greater than 500-g weight loss in one week. 2. Greater than 1-kg weight loss in one week (on average).</p> |
| 17. Insight (awareness of illness) | <p>0. Acknowledges being depressed and ill. 1. Acknowledges illness but attributes cause to bad food, climate, overwork, virus, etc. 2. Denies being ill at all.</p> |

Taken from: Ramos-Brieva J, Cordero Villafafila A. Validación de la versión castellana de la escala Hamilton para la depresión. Actas Luso Esp Neurol Psiquiatr Cienc Afines 1986;14:324-34).

For assessing the response to a treatment, a decrease of greater than or equal to 50% of the initial score of the scale has been defined as a response; a decrease of between 25 and 49% is a partial response; and a reduction of less than 25% is no response¹⁸³. In clinical trials, the most-used inclusion criteria was a score of 18, and considering remission, a score of 7¹⁸⁴.

Montgomery-Asberg Depression Rating Scale (MADRS)

The MADRS is an observer-rated scale published in 1979¹⁷⁴ that consists of 10 items that evaluate the symptoms and severity of depression, obtained based on the *Comprehensive Psychopathological Rating Scale*¹⁸⁵. The scale must be administered by a clinician, and there are self-applied versions.

The items include apparent sadness, reported sadness, inner tension, reduced sleep, reduced appetite, concentration difficulties, lassitude, inability to feel, pessimistic thoughts and suicidal thoughts. The score of each item varies between 0 and 6 points, and to assign the score, the clinician can use information from sources other than the patient. It has the advantage over the HAM-D in that it is not contaminated by items that evaluate anxiety, although it continues to maintain several somatic or vegetative items that make it difficult to administer to patients with predominantly physical symptomatology. The time frame of the assessment corresponds to the last week or to the last three days, and the Spanish versions were validated in 2002¹⁸⁶.

The overall score is obtained by totalling the score given to each one of the items, varying between 0 and 60. There are no cut-off points defined, but the recommended ones are the following¹⁸⁴:

| | No depression | Mild/minor | Moderate. | Severe. |
|-------------|---------------|------------|-----------|---------|
| Bobes, 2004 | 0-6 | 7-19 | 20-34 | 35-60 |

To assess the response to a treatment, as with the HAM-D, a decrease of greater than or equal to 50% of the initial score of the scale has been defined as a response; a decrease of between 25 and 49% is a partial response; and a reduction of less than 25% is no response. Values of 8-12 are considered remission¹⁸³.

In conclusion, the scales most-used used in research work on depression are the BDI, the MADRS and the HAM-D. These instruments allow us to do symptomatic monitoring, and they assess the severity of depression and the response to treatment. The HAM-D and the MADRS, by having a greater load of somatic symptoms, are difficult to assess in patients with a medical pathology, versus the BDI scale, which predominantly assesses the cognitive aspects of depression.

Montgomery Asberg Depression Rating Scale (validated by Lobo and assoc.¹⁸⁶)

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| <p>1. Apparent sadness The patient expresses despondency, gloom and despair reflected in speech, facial expression and posture. Rate by depth and inability to brighten up.</p> <ul style="list-style-type: none">0. No sadness.1.2. Looks dispirited but does brighten up without difficulty.3.4. Appears sad and unhappy most of the time.5.6. Looks miserable all the time. Extremely despondent. |
| <p>2. Reported sadness The patient verbally reports depressed mood, regardless of whether it is reflected in appearance or not. Includes low spirits, despondency, despair and feeling of without hope. Rate according to intensity, duration and extent to which the mood is reported to be influenced by events:</p> <ul style="list-style-type: none">0. Occasional sadness in keeping with the circumstances.1.2. Sadness but brightens up without difficulty.3.4. Pervasive feelings of sadness or gloominess, but the mood is still slightly influenced by external circumstances.5.6. Continuous or unvarying sadness, misery or despondency. |
| <p>3. Inner tension The patient expresses ill-defined feelings of discomfort, edginess, inner turmoil, mental tension mounting to either panic, dread or anguish. Rate according to intensity, frequency or duration of the reassurance called for:</p> <ul style="list-style-type: none">0. Apparently placid. Only fleeting inner tension.1.2. Occasional feelings of edginess or feelings of intermittent panic which the patient can only master with some difficulty.5.6. Unrelenting dread or anguish. Overwhelming panic. |
| <p>4. Reduced sleep The patient expresses reduced duration or depth of sleep compared to the subject's own normal pattern when well.</p> <ul style="list-style-type: none">0. Sleeps as usual.1.2. Slight difficulty dropping off to sleep or slightly reduced sleep: light sleep.3.4. Sleep reduced or broken by at least two hours.5.6. Less than 2 or 3 hours of sleep. |
| <p>5. Reduced appetite The patient expresses a loss of appetite compared with when well. Rate by loss of desire for food or the need to force oneself to eat.</p> <ul style="list-style-type: none">0. Normal or increased appetite.1.2. Slightly reduced appetite.3.4. No appetite. Food is tasteless.5.6. Needs persuasion to eat at all. |

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|---|
| <p>6. Concentration difficulties</p> <p>The patient expresses difficulties in collecting his own thoughts or in concentrating. Rate according to intensity, frequency and degree of incapacity produced.</p> <ol style="list-style-type: none"> 0. No difficulties in concentrating. 1. 2. Occasional difficulties in collecting one's thoughts. 3. 4. Difficulties in concentrating and sustaining thought, which reduces the ability to read or hold a conversation. 5. 6. Unable to read or converse without great difficulty. |
| <p>7. Lassitude</p> <p>The patient expresses or presents difficulty getting started and performing everyday activities:</p> <ol style="list-style-type: none"> 0. Hardly any difficulties in getting started. No sluggishness. 1. 2. Difficulties in starting activities. 3. 4. Difficulties in starting simple routine activities, which are carried out with effort. 5. 6. Complete lassitude. Unable to do anything without help. |
| <p>8. Inability to feel.</p> <p>The patient expresses reduced interest in the surroundings or in activities that normally give pleasure. Reduced ability to react with adequate emotion to circumstances or people.</p> <ol style="list-style-type: none"> 0. Normal interest in the surroundings and other people. 1. 2. Reduced ability to enjoy usual interests. 3. 4. Loss of interest in the surroundings, even with friends and acquaintances. 5. 6. States the experience of being emotionally paralysed, the inability to feel anger, grief or pleasure, and a complete and/or even painful failure to feel for close relatives and friends. |
| <p>9. Pessimistic thoughts</p> <p>The patient expresses thoughts of guilt, self-reproach, remorse, inferiority, ruin and sinfulness.</p> <ol style="list-style-type: none"> 0. No pessimistic thoughts 1. 2. Fluctuating ideas of failure, self-reproach or self-deprecation. 3. 4. Persistent self-accusations or indefinite but still rational ideas of guilt or sin. Pessimism. 5. 6. Delusions of ruin, remorse or unredeemable sin. Self-accusations that are absurd and unshakeable. |
| <p>10. Suicidal thoughts</p> <p>The patient expresses the idea that life is not worth living, that a natural death would be welcome or states suicidal thoughts or plans.</p> <ol style="list-style-type: none"> 0. Enjoys life or takes it as it comes. 1. 2. Weary of life. Only fleeting suicidal thoughts. 3. 4. Probably better off dead. Frequent suicidal thoughts. Suicide is considered as a possible solution, but without specific plans or intention. 5. 6. Explicit plans for suicide when there is an opportunity. Active preparation for suicide. |

Taken from: Lobo A, Chamorro L, Luque A, Dal-Re R, Badia X, Baro E. Validacion de las versiones en español de la Montgomery-Asberg Depression Rating Scale y la Hamilton Anxiety Rating Scale para la evaluacion de la depresion y de la ansiedad. Med Clin (Barc) 2002;118(13):493-9.