Scientific Research Publishing

Psychology, 2022, 13, 853-871
https://www.scirp.org/journal/psych
ISSN Online: 2152-7199
ISSN Print: 2152-7180

The DEP-6: A Brief Multi-Diagnostic Measure of Depression

John R. Rossiter

School of Psychology, Charles Sturt University, Wagga Wagga, Australia
Email: jrrossiter14@gmail.com

How to cite this paper: Rossiter, J. R. (2022). The DEP-6: A Brief Multi-Diagnostic Measure of Depression. *Psychology, 13,* 853-871.
https://doi.org/10.4236/psych.2022.136058

Received: March 11, 2022
Accepted: June 13, 2022
Published: June 16, 2022

Abstract

The background to this paper is that current measures of depression are unsatisfactory because they fail to distinguish between different types of depression, notably those that are biologically caused and require medication versus the more common reactive type of depression that is treatable, if necessary, by a psychologist. The first part of the paper, aimed mainly at researchers, criticizes the major measures of depression in use at present. The second part of the paper, aimed mainly at practitioners, offers a new multi-diagnostic depression measure called the DEP-6, an efficient 6-item clinician-rated questionnaire which enables the clinician to distinguish the patient's primary type of depression and choose an appropriate first line of treatment. The present author developed the DEP-6 by using the DSM-5 to identify the core symptoms of each of the main types of depression and closely related disorders. Specific combinations of the core symptoms enable the clinician to make a primary diagnosis of psychosis, bipolar disorder, biological depression, or reactive depression, or to conclude that no clinical depression is present. The DEP-6 is freely available in this article and can be easily translated into other languages.

Keywords

Types of Depression, Problems with Existing Measures, New 6-Item Depression Screener

1. Introduction

It is of vital importance for clinicians to use a screening measure that is able to accurately detect the presence of clinical-level depression in the first place and then to distinguish common event-reactive depression, which can be treated by a

psychologist, from the more serious biologically caused depression which requires medication prescribed by a medical practitioner or psychiatrist (see Sadock & Sadock, 2007). Biological depression then has to be distinguished from bipolar disorder and both have to be monitored for deterioration into psychosis (see especially Parker et al., 2020) and these three very serious disorders have to be distinguished because the medication needed to treat them is different. However, a thorough review of the psychiatric literature reveals that there is no comprehensive measure available that is capable of making these distinctions and thereby serving as a multi-diagnostic measure of depression.

In the present article, the present author offers such a measure—a new 6-item measure for the screening of depression called the DEP-6. The DEP-6, which is based on the author's *core symptom theory*, avoids the problems with all previous measures of depression (the SCID-5 structured clinical interview is arguably better but requires extensive training and is far too long for general use). The DEP-6 employs the essential (i.e., core) DSM-5 symptoms for diagnosing major depressive disorder while including other essential symptoms which, in specified combinations, enable the clinician to detect the type of depression and thus the most appropriate form of treatment.

The present article consists of two distinct parts. In the first part, which is aimed mainly at researchers, the three main clinician-related depression measures are reviewed in detail and shown to be inadequate, with the consequent recommendation that they should not be used and that a new measure is needed. (The present author, unlike most researchers in psychology or psychiatry, has a strong background in survey research and questionnaire design and has noticed over the years that psychology and psychiatry researchers nowadays fail to look closely at the content of the measures that they use. Instead, they assume that the content is correct and look only at the psychometric statistics associated with the measure.) In the second part, which is aimed mainly at *practitioners*, the author introduces the rationale and design procedure for the new depression measure, the DEP-6, and explains the core symptom method of scoring.

2. Problems with Current Measures of Depression

Measures of depression are either clinician-rated or self-reported. Self-report measures—for example, the CES-D, PHQ-9 or PHQ-8, and K-10 or K-6, to name the most popular ones—can be ruled out immediately because they cannot detect the serious forms of depression and cannot be used with people who are not insightful enough or well enough to reliably self-report their symptoms (Zimmerman, 2017). The focus in this article, therefore, is on clinician-rated measures and in particular on the main three. In order of their publication, these are: the Hamilton Rating Scale for Depression (HRSD, Hamilton, 1960); the Beck Depression Inventory (BDI—for the original BDI see Beck, Ward, Mendelson, Mock, & Erbaugh, 1961, and for the later version, called the BDI-II, see Beck, Steer, & Brown, 1996); and the Montgomery-Asberg Depression Rating

Scale (MADRS, Montgomery & Asberg, 1979).

These three measures are evaluated in this article in terms of six measure design criteria. These criteria, along with a summary of the evaluations, are shown in Table 1 and are used as the subheadings in the reviews below.

2.1. Hamilton Rating Scale for Depression

The Hamilton Rating Scale for Depression (HRSD) comes in several versions which differ in the number of items, but the focus here is on the most widely used version, the 17-item version taken from the original 21-item questionnaire in Hamilton's 1960 article. The HRSD items are supposed to be rated *after* the clinician has conducted an extensive face-to-face interview with the patient (face-to-face being necessary to observe *signs* as well as symptoms). But as far as the published studies using the HRSD are concerned, researchers never report doing this and apparently wrongly rate the HRSD items directly without benefit of a prior interview. It should be noted that this is not the case with the other two measures discussed below, the BDI and the MADRS, which have no interview preceding the questionnaire.

The HRSD's item content and answer scale content are criticized below.

2.1.1. Depressed Mood Core Symptom Not Measured Properly

The DSM-5 (American Psychiatric Association, 2013: p. 160) specifies the following criteria for depressed mood: *Depressed mood most of the day, nearly every day for at least the previous* 2 *weeks, as indicated by either subjective report* (*e.g., feels sad, empty, or hopeless*) *or observation made by others* (*e.g., appears tearful*). *Note: in children and adolescents, can be irritable mood*. As with all depression symptoms in the DSM-5, the symptom must have resulted in either intolerable distress or a marked—and noticeable to others—decline from normal functioning. (Incidentally, the World Health Organization's diagnostic

Table 1. Problems with the main clinician-rated measures of depression (X = problem).

Problem	Hamilton Rating Scale for Depression (HRSD-17)	Beck Depression Inventory (BDI-21)	Montgomery-Asberg Depression Rating Scale (MADRS-10)
1) Depressed mood core symptom not measured properly	X	X	Correctable by using the question part from item #1 with the answer options from item #2
2) Anhedonia core symptom not measured properly	X	X	Correctable by using the third answer option from item #8 as an indication of reactive depression and the fourth as an indication of biological depression
3) Agitated retardation not measured properly	X	X	Correctable by combining item #3 and item #7 as a single item
4) Mania not screened out	X	X	X
5) Psychosis not screened out	X	X	X
6) Total score meaningless	X	X	X

system, the 1993 ICD-10, which is still in use and dominates in Europe, does *not* require significant distress or dysfunction, and a preview of the forthcoming ICD-11 shows that the new version is not going to do this either. This major shortcoming, coupled with the ICD-10's comparatively loose symptom wording, is why the DSM *only* should be consulted when designing mental disorder measures.) The HRSD, as explained below, measures depressed mood, the first core symptom of depression, but in a manner inconsistent with the DSM. This is not surprising since the HRSD was published in 1960 and the first widely influential version of the DSM, the DSM-III (American Psychiatric Association, 1980), did not appear until 20 years later.

"Depressed Mood" is item #1 of the 17 items in the HRSD (Hamilton, 1960: Appendix II, p. 62, and all the following quoted excerpts are taken from this appendix). After first trying to assess whether the patient presently has [note that no retrospective 2-week time period is asked about as in the DSM] a "gloomy attitude," is "pessimistic about the future," and has a "feeling of sadness," the depressed mood item requires the clinician to judge only "the tendency to *weep*" (p. 62). The rating of this tendency is to be made on a 5-point scale: "0 = None at all" [an answer option which is *not* listed in the actual questionnaire], "1 = Sadness, etc. [sic]," "2 = Occasional weeping," "3 = Frequent weeping," "4 = Extreme symptoms." Number 1 and number 4 of these answer alternatives are clearly not on a continuum of weeping and, more critically according to the DSM, weeping is neither a necessary nor or sufficient symptom of depressed mood.

Thus, depressed mood is mismeasured in the HRSD.

2.1.2. Anhedonia Core Symptom Not Measured Properly

The second core symptom of depression is anhedonia, defined in the DSM-5 (p. 160) as: *Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day for at least the past* 2 *weeks* (*as indicated by either subjective account or observation*). The HRSD measures anhedonia as item #7, an item that bears the vague heading "Work and Interests," under which the clinician is somehow supposed to make a rating of either 1, 2, 3, or 4 [again with no rating of zero listed] and has to do this based on a strange mix of the following symptoms: "Feelings of incapacity," "Listlessness, indecision and vacillation," "Loss of interest in hobbies," "Decreased social activities," "Productivity decreased," and "Stopped working because of present illness only." How the clinician is supposed to make ratings of 1, 2, 3, or 4 for anhedonia on this motley mix of symptoms is not explained in the Hamilton questionnaire. Moreover, these symptoms, with the exception perhaps of "Loss of interest in hobbies," are not specific to anhedonia and could be symptoms of almost any physical or mental disorder.

Thus, anhedonia is mismeasured in the HRSD.

2.1.3. Agitated Retardation Core Symptom Not Measured Properly

Agitated retardation is a core symptom of biological or so-called melancholic

depression. The DSM-5 (p. 161) describes this symptom as: *Psychomotor agitation or retardation nearly every day* (*observable by others; not merely subjective feelings of restlessness or being slowed down*) but based on Parker's work (2000) this should be "agitation *and* retardation" rather than "*or* retardation."

The HRSD taps into what could be taken to be agitated retardation wrongly with three separate items, two of them referring to agitation and a separate one referring to retardation. Item #9 headed "Agitation" is simply described as "Restlessness associated with anxiety [rather than depression]" and is rated on an *unspecified* 0 - 2 scale. Item #10, which seemingly overlaps with item #9, is headed "Anxiety, psychic" and is described in terms of four disparate symptoms which again are not on a continuum, namely, "Tension and irritability," "Worrying about minor matters," "Apprehensive attitude," and "Fears," and again these are somehow to be rated on an *unspecified* 0 - 4 scale. Lastly, item #8, headed "Retardation," requires the clinician to consider in effect five disparate symptoms which are "Slowness of thought, speech, and activity," "Apathy," and "Stupor." Unlike the other two items, retardation is to be rated on a specified answer scale as follows: "0 = No retardation" [again not actually given on the HRSD questionnaire], "1 = Slight retardation at interview," "2 = Obvious retardation at interview," "3 = Interview difficult," "4 = Complete stupor"—answer options that again do not form any sort of continuum. The three items should appear as one item on the HRSD questionnaire in a form that shows the degree to which the patient is rated as both mentally agitated *and* behaviorally retarded, and this overall judgment should be made regardless of how difficult the interview may have been.

Thus, agitated retardation is mismeasured in the HRSD.

2.1.4. Mania Not Screened for

The diagnosis of major depressive disorder in the DSM-5 requires explicit ruling out of mania (a manic or so-called hypomanic episode—see p. 161 of the DSM-5 manual). This is because mania is the core symptom of the much more serious condition previously called manic-depression and now known as *bipolar disorder.* As Hamilton (1960: p. 56; 1967: p. 290) was careful to point out, use of the HRSD presumes that mania has already been ruled out so that the primary complaint is indeed major depression. What this does, though, is limit the diagnostic breadth of the HRSD.

2.1.5. Psychosis Not Screened for

The other serious disorder that has to be detected is *psychosis*, most notably schizophrenia, as manifested in delusions, hallucinations, or both. But the clinician has to ask about and rule out psychotic episodes induced by substance abuse, most often, or by brain damage from concussion or the onset of dementia. Readers of Hamilton's 1960 article would see that the 21-item version of the HRSD *does* include an item, item #20, to gauge the presence of psychosis, but the 17-item version does not.

2.1.6. Total Score Meaningless

Now comes the "killer criticism" of the HRSD-17 (and also of the BDI and the MADRS). This is that total scores on the measure mean nothing (see also Bagby, Ryder, Schuller, & Marshall, 2004, who seem to be the only other critics of the HRSD). This is because, as several other researchers such as Galatzer-Levy and Bryant (2013) have observed with other psychiatric measures, there are too many *different ways* in which the total score can be derived. Partly the problem is caused by the presence of so many secondary or unrelated items (12 of the 17 according to the foregoing analysis) and partly it is due to the *different scoring ranges* that Hamilton used wherein eight of the items are scored 0 - 4, or actually 1 - 4 since the zero alternative is omitted from the 5-point items, while nine of them are scored 0 - 2, with the zero rating explicitly specified on only one of them. This hopeless mixture of answer scales on the HRSD renders its total scores meaningless.

Conclusion: do not use the HRSD.

2.2. Beck Depression Inventory

Now we come to the world's most widely used measure of depression, the Beck Depression Inventory (BDI). The two most commonly used versions are the original BDI (Beck et al., 1961) which should be referred to as the BDI-I and is freely available in the 1961 article, and a quite substantially revised version called the BDI-II (Beck et al., 1996) which must be purchased from a company called Harcourt Assessment, Inc., in San Antonio, Texas. Because both versions are still widely used, both are evaluated below.

Upon close investigation the Beck Depression Inventory turns out to be a deceptive and flawed instrument. It is deceptive because the 1961 BDI-I was clearly described as being clinician-rated, just like the 1960 HRSD, but subsequent versions culminating in the 1996 BDI-II are allowed to be *patient self-rated*. Actually, one suspects that Beck always intended the BDI to be self-rated so as to broaden its usage beyond qualified psychiatrists. This is because if you look at the BDI-I or the BDI-II questionnaires you will see that there are *no actual questions*. Instead, there is only a set of a headings apparently meant for the psychiatrist but which the patient can see (headings which *bias the answers* by telling the patient what symptom the clinician is looking for) and these headings are followed by answer alternatives worded in the *first person* (e.g., "I feel blue or sad" in the BDI-I, or "I am sad all the time" in the BDI-II). This first-person wording means that the BDI is left for the patient to complete and is not a genuine clinician-related measure.

The self-reporting means that the BDI cannot be used with patients who are too depressed to self-report, namely those undergoing a severe depressive episode in major depression or bipolar disorder, or of course patients with language problems. Also, self-reporting does not allow the clinician to take into account nonverbal *signs* of depression or to obtain *informant reports*—both of which are key inputs to a DSM-based diagnosis of depression.

These warnings made, let us now turn to the item and answer scale content of the BDI-I and the BDI-II as assessed in terms of the six criteria listed in Table 1.

2.2.1. Depressed Mood Core Symptom Not Measured Properly

The one change that was made by Beck to be more consistent with the then available DSM-III (American Psychiatric Association, 1980) diagnostic criteria for major depression was to change the duration of the depressed mood core symptom and other symptoms from the time of the interview and thus "at present" in the BDI-I to the "past 2 weeks including today" in the BDI-II. This makes the BDI-II depressed mood duration consistent with the current DSM-5 duration. However, Beck, in making the duration update, did not incorporate the *symptom frequency* requirement of the DSM which, as noted earlier, is "most of the day, nearly every day."

Also to be criticized are Beck's changes to the symptom headings. Depressed mood, the first core symptom, is headed in item A in the BDI-I by the simple parenthesized word "(Mood)" but by the non-parenthesized word "Sadness" in item #1 in the BDI-II. This is a critical content difference between the two versions because the first version would lead the patient to consider mood in general whereas the second version defines depressed mood too narrowly as *sadness*.

The answer alternatives for depressed mood also differ between versions. In the BDI-I (item A) they are "0 = I do not feel sad," "1 = I feel blue or sad," "2a = I am blue or sad all the time and I can't snap out of it," "2b = I am so sad or unhappy that it is very painful," "3 = I am so sad or unhappy that I can't stand it." In the BDI-II, however, the focus is solely on *sadness* with the answer alternatives given as "0 = I do not feel sad," "1 = I feel sad much of the time," "2 = I am sad all the time," "3 = I am so sad or unhappy that I can't stand it." The middle two alternatives attempt to measure frequency but the first and last do not, referring only to the present. Both versions also mistakenly refer to "unhappiness," which does not necessarily mean depression.

Thus, depressed mood is mismeasured in both versions of the BDI.

2.2.2. Anhedonia Core Symptom Not Measured Properly

The anhedonia core symptom is handled badly in both versions of the BDI by being listed as two separate symptoms, "loss of interest" *or* "loss of pleasure," when both are required. In the BDI-I, the first of the two anhedonia symptoms, item D, is described as "(Lack of Satisfaction)," which is not the same as *losing pleasure*. In the BDI-II, the corresponding anhedonia symptom, item #4, is more consistent with the DSM in being described as "Loss of Pleasure," but the answer alternatives refer only to loss of pleasure from "things" instead of loss of pleasure from normally pleasurable activities. The second anhedonia symptom, referring to loss of *interest*, is off-base in both versions of the BDI. In the BDI-I, item L for loss of interest is inappropriately labeled as "(Social Withdrawal)" which could be due to anxiety rather than depression. In the BDI-II, item #12 is correctly labeled as "Loss of Interest," but the answer alternatives, which are "0 = I have not

lost interest in other people or activities," "1 = I am less interested in other people or things than before," "2 = I have lost most of my interest in other people or things," "3 = It's hard to get interested in anything," vacillate on the object of the loss of interest ("things" or "people" or "activities").

Thus, both versions of the BDI mismeasure anhedonia.

2.2.3. Agitated Retardation Core Symptom Not Measured Properly

Agitated retardation is not measured in either version of the BDI. The BDI-I contains no item that could be construed as recording either mental agitation or behavioral retardation; and the BDI-II includes only one item, item #11, labeled as "Agitation" and none on retardation. In fact, the last answer option for item #11 in the BDI-II is "I am so restless or agitated that I have to keep moving or doing something," which is the exact *opposite* of retardation.

The failure of both versions of the BDI to measure agitated retardation means that the BDI cannot measure *biological*, or what is known in the DSM-5 as *melancholic*, depression, for which agitated retardation is a core symptom.

2.2.4. Mania Not Screened for

There is no item asking about a manic episode in either version of the BDI. This means, crucially, that both the BDI-I and the BDI-II fail to screen for the presence of *bipolar disorder*.

2.2.5. Psychosis Not Screened for

The BDI-I and the BDI-II fail to screen for the very serious psychotic episodes—detachments from reality, usually in the form of deluded thoughts and behavior—that can occasionally occur during depressive episodes or during episodes of mania.

2.2.6. Total Score Meaningless

If you have been following the criticisms so far you will see that only three of the 21 items in the BDI-I and in the BDI-II refer to the core symptoms of major depression. These are the item on *depressed mood*, called "Mood" in the BDI-I and "Sadness" in the BDI-II, and the two separate items on *anhedonia*, called "Lack of Satisfaction" and "Social Withdrawal" in the BDI-I and "Loss of Interest" and "Loss of Pleasure," in the BDI-II.

The other 18 items in the BDI-I and the other 18 items in the BDI-II refer to secondary symptoms and are ambiguous as to whether depression is the cause of them. These ambiguous items, looking first at the publicly available BDI-I, include at least four items (three in the BDI-II) that refer to "Self-Esteem," which can be affected by many factors other than depression. Then there are items attempting to measure doubtful depression symptoms including "Guilt," "Pessimism," "Self-Punishment Thoughts," "Work Inhibition" (dropped in the BDI-II), "Sleep Disturbance" ("Changes in Sleeping Pattern" in the BDI-II), "Weight Loss" ("Changes in Appetite" in the BDI-II), and the obscurely named term for hypochondria, "Somatic Preoccupation" (rightly dropped in the BDI-II). The

great majority of the items on the BDI-I and the BDI-II are *not* necessary symptoms of depression, yet their ratings contribute equally to the overall depression score. This renders BDI total scores meaningless, no matter which version they come from.

The BDI, regardless of these item content problems, shares the same problem with the other two measures, which is that total scores can be made up in many different ways. Scores on both versions of the BDI can range from 0 to 63 (21 items, each scored 0 - 3). Beck et al. for the BDI-I (1961, p. 566) used the implausibly low cutoff score of 30/63 for concluding that the person has "severe depression" (Beck et al., 1996, in the BDI-II for some reason used a lower cutoff score of 29/63, but it is the cutoff score of 30, regardless of the version, that has been widely adopted by researchers.) A score of 30, however, could be achieved in many different ways. For example, a person could have scores of *zero* on the depressed mood and anhedonia core symptoms and scores adding up to 30 on the other symptoms. Alternatively, a person scoring only 1 s on 12 of the items and 2 s on the other nine would achieve a total score of 30 and be classified as having severe depression without any of the symptoms being rated as 3 = severe. Lastly, note that a very *low* total score on the BDI could in fact be consistent with severe depression. A person could have the maximum rating of 3 on the depressed mood item and, though unlikely, ratings of 0 on all the other items for a total score of only 3, and because of the depressed mood this would qualify as major depression.

Conclusion: do not use the BDI.

2.3. Montgomery-Asberg Depression Rating Scale

The Montgomery-Asberg Depression Rating Scale (MADRS), published in 1979, now seems to be the depression measure most widely used by psychiatry researchers. Although the MADRS, like the other two measures, predates the first widely influential version of the DSM diagnostic system, the DSM-III (American Psychiatric Association, 1980), it does a much better job than the other two measures of corresponding to the DSM criteria required for the diagnosis of major depressive disorder. Like the HRSD, the MADRS is supposed to be clinician-rated and can therefore take into account nonverbal signs that suggest the presence of depression symptoms. Like the HRSD and the BDI-I, but unlike the BDI-II, the MADRS questionnaire is publicly available in Montgomery and Asberg's 1979 article. Another good property of the MADRS, as noted on p. 387 of their article, is that it can be used to cover any time interval the user chooses, meaning that the DSM's "past 2 weeks including today" duration could, and should, be specified.

A significant problem with the MADRS, however, is that all 10 items in the MADRS questionnaire employ the same unacceptable answer scale. This answer scale is numbered 0, 1, 2, 3, 4, 5, 6 but only the 0, 2, 4, and 6 numbers have a verbal label attached, thus allowing the clinician to make unlabeled "between-level" ratings of 1, 3, and 5. This is an incorrect way to use a rating scale

and no other questionnaire that the present author is familiar with does it. [This problem would be correctable by retaining only the verbally labeled options and re-rating them as 0, 1, 2, 3.]

The MADRS is the only one of the three measures that is worth trying to improve, and the necessary improvements are outlined in the following review for the benefit of psychiatry researchers who may be interested in doing so. However, even with these improvements the MADRS can be ruled out for use by practitioners because it is far too detailed and time-consuming. With these considerations in mind, the MRSD will now be reviewed based on the six criteria listed in Table 1 earlier.

2.3.1. Depressed Mood Core Symptom Not Measured Properly

Like the BDI, the MADRS questionnaire describes the depressed mood core symptom simply as "Sadness." However, this is not so bad in the MADRS because item #1, "Apparent Sadness," includes a full description of what sadness means, a description that is to be read by the clinician before making the rating. This description is "Apparent Sadness—representing despondency, gloom and despair (more than just ordinary transient low spirits) reflected in speech, facial expression, and posture [a very good description of the depressed mood symptom, by the way, because it tells the clinician, as in the DSM, to take signs into account]. Rate by depth and inability to brighten up [this complicates the rating a bit but is basically on the right track in that ability to brighten up after setbacks has to be taken into account in order to distinguish reactive from biological depression]."

The big mistake made by Montgomery and Asberg, however, was to include a second item, item #2, "Reported Sadness," that calls for a *self-report* from the patient and also uses a second and somewhat contradictory description of sadness. This wrongly *double-counts* the depressed mood symptom, and the self-report also has the possibility of contradicting the assessment the clinician made in item #1. [An appropriate recommendation that would save the MADRS measure of depressed mood would be to use the descriptive question from item #1 coupled with the answer options from item #2—here renumbered to a correct 4-point scale—which are: "0 = Occasional sadness in keeping with the circumstances," "1 = Sad or low but brightens up without difficulty," "2 = Pervasive feelings of sadness or gloominess. The mood is still influenced by external circumstances," "3 = Continuous or unvarying sadness, misery or despondency." Note that answer 1 indicates reactive depression; answer 2 is indeterminate because biological depression sufferers also react to circumstances; and answer 3, provided that the depression is deep and dysfunctional, is a clear symptom of biological depression.]

2.3.2. Anhedonia Core Symptom Is Measured Properly

The MADRS does a good job of measuring anhedonia. The eighth of the 10 items in the measure carries the quite accurate label for anhedonia as "Inability

to feel," a label which has a lead-in description as follows: "Representing the subjective experience of reduced interest in the surroundings, or activities that normally give pleasure. The ability to react with adequate emotion to circumstances or people is reduced." The answer options for this item, recoded as 0, 1, 2, 3, are "0 = Normal interest in the surroundings and in other people," "1 = Reduced ability to enjoy usual interests," "2 = Loss of interest in the surroundings. Loss of feelings for friends and acquaintances," and "3 = The experience of being emotionally paralyzed, inability to feel anger, grief or pleasure and a complete or even painful failure to feel for close relatives and friends." [These answer options *do* form a continuum and answer 3 gives a definitive reading of the core symptom of persistent anhedonia characteristic of biological depression, whereas answer 2 gives a good indication that the anhedonia in this case is symptomatic of reactive depression.]

2.3.3. Agitated Retardation Core Symptom Not Measured Properly

The MADRS questionnaire also could be saved to better measure agitated retardation, although with a little more difficulty this time. The difficulty is caused by the MADRS's use of two items that measure agitation and retardation separately. The first of these items, item #3, is labeled "Inner Tension" and is described as "feelings of ill-defined discomfort, edginess, inner turmoil, mental tension mounting to either panic, dread or anguish" [an excellent description of mental agitation in depression] and where the answer options, again rescored, are: "0 = Placid. Only fleeting inner tension," "1 = Occasional feelings of edginess and ill-defined discomfort," "2 = Continuous feelings of tension or intermittent panic which the patient can only master with some difficulty," "3 = Unrelenting dread or anguish. Overwhelming panic." [Answer 3, however, should be dropped because it could refer to an anxiety disorder or, if temporary, to a panic attack. Answer 2 referring to "Continuous feelings of tension or intermittent panic which the patient can only master with some difficulty" is sufficient to indicate clinically meaningful agitation.] The second of these items, item #7, is labeled "Lassitude" and bears the [again quite accurate] description of behavioral retardation as, "difficulty getting started or slowness initiating and performing everyday activities." The answer options, again recoded, are: "0 = Hardly any difficulty in getting started. No sluggishness," "1 = Difficulties in starting activities," "2 = Difficulties in starting simple routine activities which are carried out with effort," "3 = Complete lassitude. Unable to do anything without help." Agitated retardation is a core symptom only of biological depression for which only answer 3 is relevant. [The recommendation, therefore, would be to construct a new item combining the answer 2 from the agitation question with the answer 3 from the retardation question, such as: "Continuous feelings of inner turmoil bordering on panic which the patient cannot control, resulting in the almost complete inability to carry out everyday activities." A "yes" answer to this question would be a good indication of the presence of the core symptom of biological depression known as agitated retardation. Researchers should note, however,

that this binary rating would be a departure from the 0, 1, 2, 3 rating of the other symptoms. But see comments under 2.3.6 below where it is argued that multi-point continuous ratings of symptoms are not needed anyway.]

The above comments are mainly intended for researchers who might want to save the MADRAS because of its many good items. However, there are still two items that would have to be added to make it a complete screener for depression, as follows.

2.3.4. Mania Not Screened for

The absence of a screening question on mania remains a problem with the MADRS. It is necessary to screen for mania so to be able to distinguish bipolar disorder from major depression.

2.3.5. Psychosis Not Screened for

This also remains a problem with the MADRS.

2.3.6. Total Score Meaningless

Even if these changes were made, the MADRS would still have the same overall problem as the HRSD and the BDI, which is that the total score is meaningless. The problem, to put it another way, is that these measures make the completely unwarranted assumption that the more symptoms the patient has and the more severely they are rated, the more serious the depression.

Conclusion: the MADRS is the only one of the three depression measures that would be worth saving but the items and answer options are very detailed, making it unlikely that clinicians, or researchers for that matter, would read them each time they use the MADRS and therefore use the measure properly. The MADRS is also too time-consuming for routine use.

It would be far better, therefore, for mental health practitioners—and researchers—to adopt the new multi-diagnostic depression screener, the DEP-6, as given next.

3. An Efficient Multi-Diagnostic Depression Screener: The DEP-6

The following sections explain the rationale behind the derivation of the DEP-6, how the wording of the items was chosen, and how the answers are to be scored in order to arrive at an initial diagnosis of whether the patient has depression or not and if so, what type of depression it seems to be. The new measure is given in Table 2, and its corresponding scoring guide is given in Table 3.

3.1. Derivation of the Screener

The author uses what he calls *core symptom theory* (Rossiter, 2020) for designing mental disorder screening measures. The principle underlying core symptom theory is as follows: *If the prospective patient does not have the core symptoms of a given disorder, then he or she cannot possibly have that disorder.*

The core symptoms in the DEP-6 are basically consistent with those specified

Table 2. An efficient depression screener (DEP-6) based on the core symptoms of depression in the DSM-5. "Dysfunctional" means really struggling or unable to perform usual daily activities—getting out of bed, washing and dressing, and then doing what you normally do if it's a school day or work day.

CLINICIAN_____ **DATE**_____		
PATIENT_____		
INFORMANT FOR SIGNS*_____		
Symptom and starter question (ask for clarification if necessary)	**Present to a dysfunctional level?**	
1) Reactive depressed mood: Have you recently had days when something made you feel so down and depressed that you could not function at your best?	Yes	No
2) Persistent depressed mood: Have you recently had a period of at least two weeks where you were down and depressed most days most of the day and couldn't shake off the depression? *Signs: slumped shoulders, avoidant or glazed eyes, reported crying.	Yes	No
3) Persistent anhedonia: Have you recently been feeling really flat and unable to get enjoyment from the things that you normally enjoy? *Signs: noticeable reduction in time spent with TV or other entertainment, and reduced socializing.	Yes	No
4) Agitated retardation: Have you recently had days over a period of about two weeks when you felt all stirred up but unable to get going and get things done? *Signs: flustered and often hyper-anxious appearance, confused speech, and can't get going.	Yes	No
5) Manic episode: Do you sometimes go into a large upward mood swing—feeling great but realizing you are unusually hyperactive? *Signs: hyperactivity, impulsive decision-making as confirmed by an informant. Check that the episode is not due to substance abuse.	Yes	No
6) Psychosis: Do you ever hear a weird voice or voices in your head telling you to do things you wouldn't normally do, or see strange and often haunting visions in your mind? *Signs: voices or visions should be confirmed by an informant. Check that the episode is not due to substance abuse.	Yes	No

Table 3. Scoring rules for the DEP-6 and treatment recommendations.

Apply the scoring rules in the following order, which is the reverse of the order on the questionnaire:

Psychosis = Yes to (6), recurring delusions or hallucinations. Refer immediately to a *psychiatrist*.

Bipolar disorder = Yes to (5), manic episode. Refer immediately to a *psychiatrist*.

Biological depression = Yes to (2), persistent depression; Yes to (3), persistent anhedonia; and Yes to (4), agitated retardation. Refer immediately to a *psychiatrist*.

Reactive depression = Yes to (1) reactive depression—but No to all others. Refer to a *physician* who is experienced in treating mental disorders, or to a psychiatrist. The patient with only reactive depression should be prescribed with the mild antidepressant, St John's Wort (see text).

No depression—No to all six questions. Reassure the person that he or she does not have clinical depression, and that occasionally feeling down or a bit depressed is *normal* and will pass, but to come back if the depression gets worse and interferes with daily activities.

in the DSM-5 diagnostic manual for major depression (American Psychiatric Association, 2013), but several modifications are needed in order to distinguish the major *types* of depression. The modifications are in most cases attributable to the work of Australian psychiatrist Gordon Parker, founder of the Black Dog

Institute at the University of New South Wales and a leading authority on depressive disorders, and these modifications are explained in the remainder of this section.

For the diagnosis of a major depressive episode, and thus major depressive disorder according to the DSM-5, the patient must be judged as suffering from either depressed mood *or* anhedonia—and either symptom must be present most of the day, on most days, for a period of at least 2 weeks including today, *and* cause significant distress or dysfunction. Whether the patient reports having any other symptoms—such as feeling hopeless, or worthless, or having suicidal thoughts—is entirely secondary, and these symptoms count for nothing if the patient does not have at least one of the two core symptoms. However, the DSM-5 criteria for major depressive disorder do not go far enough in that the rule specifying "depressed mood or anhedonia or both" relates only to externally caused "exogenous" or what is known as *reactive* depression—the only type of depression that psychologists are qualified to treat.

Internally caused "endogenous" or *biological* depression is much more serious and almost always requires antidepressant medication, which only medical practitioners or psychiatrists are qualified to prescribe. The DSM-5 does include a so-called qualifier for biological depression (called "melancholic depression" in the DSM-5 manual, p. 185) but it is not up-to-date with Parker's core criteria for this type of depression (see Parker, 2000; Parker, 2012; Parker et al., 2020), which are three in number: persistent depressed mood (unshakeable depressed mood most days for at least the past 2 weeks), persistent anhedonia (abnormally flattened emotional responsiveness), and agitated retardation (extreme mental restlessness accompanied by inability to act). Parker also lists one or two other symptoms of biological or melancholic depression, such as early-morning wakening and impaired concentration, but these are not always present and therefore cannot be core symptoms.

Manic-depression, or what is now known as *bipolar disorder*, is the remaining type of depression that needs to be detected. The DSM-5 manual (p.161) instructs the clinician to rule out major depression and diagnose the patient as having bipolar disorder if there has been a *full* manic episode in the patient's history—a full manic episode *whether or not the patient has had a major depressive episode* (p. 124). Mania is therefore sufficient for the diagnosis of bipolar disorder and a stand-alone question on mania must be included on the depression screener. Manic episodes, however, are rarely recognized or remembered by the patient, and unless an informant confirms the episode the bipolar disorder will be missed (Sadock & Sadock, 2007). Also, manic episodes are most typically followed by wave of anger and irritability and then a rapid descent into depression, which is then detected and diagnosed as major depression rather than bipolar disorder. The distinction is crucial because major depression requires treatment with an antidepressant, whereas bipolar disorder requires treatment with an antipsychotic or what is commonly known as a "mood stabilizer," to which an antidepressant is typically added.

A question on *psychosis* must also be included. This is because even though there is a qualifier in the DSM-5 (p.186) for "major depression with psychotic features," this is inadequate because it does not allow for psychosis as the *primary* symptom, which is often the case in patients with bipolar disorder (Craddock & Owen, 2010). Psychosis, like bipolar disorder, requires treatment with antipsychotic medication. Supplementary antidepressant medication does not seem to help with psychosis.

The final modification concerns informant reports. The DSM-5 regards informant reports as *optional* to self-reports. In the DEP-6, on the other hand, *informant reports are necessary* so that the clinician can make accurate ratings of the two symptoms for which the patient has little or no reliable insight, namely, a manic episode or the emergence of psychosis.

3.2. Question Wording

The next step of the method was to choose question wording for the DEP-6 (see the wording in **Table 2**). This was achieved by fairly closely following the wording from two main sources: the *Structured Clinical Interview for DSM*-5 *Disorders*: *SCID*-5-*CV* (First, Williams, Karg, & Spitzer, 2016) and the wording used to describe symptoms in the authoritative book on mental disorder diagnosis written by U.S. expert psychiatrist Allen Frances (2013a), who was a member of the DSM-III Task Force and chaired the DSM-IV Task Force and then objected very publicly (2013b) to the DSM-5's reclassification of common adjustment problems as mental disorders as well as its generally lower thresholds for diagnosis. The low threshold problem is notably evident with bipolar disorder, where the authors of the DSM-5 expanded the criteria to include *hypomania* to define what is called Bipolar II as opposed to Bipolar I disorder, the severe and dysfunctional form of bipolar disorder that requires full mania. As Mitchell (2012) has argued, this expansion is ill-advised because it has resulted in the incorrect diagnosis of major depressive disorder as bipolar disorder, with resulting unnecessary treatment of hypomania with antipsychotic medication.

Care was taken to use wording that is common in North American speech but which would also be understood by competent English speakers around the world. A drawback with any questionnaire, however, is that even though the respondent may *appear* to understand the question, his or her interpretation of the literal meaning and emotional tone of the words can differ substantially. If the clinician is not sure about the patient's answer, the clinician can either paraphrase the question or, better still, seek confirmation from an informant such as a friend or family member, in which case the clinician should also ask the informant about the presence of symptom-related *signs*. Although this additional questioning will de-standardize the measure, it will achieve the far more important goal of measuring the symptom more accurately and improving diagnosis.

The binary Yes or No answer alternatives in the DEP-6 (again see **Table 2**) offer a considerable improvement over the multipoint rating scales used in other depression measures. The problem with multipoint ratings is that they allow the

symptom to be partial and this prevents the clinician from having to decide, binary, whether the symptom is present to a dysfunctional level or not. A further advantage of binary answering is that it turns the DEP-6 into what is essentially a highly efficient *checklist* measure (for the advantages of checklists, see especially Gawande, 2009).

It may be noted that there is no separate question in the DEP-6 on symptoms of *anxiety*, which is a very common accompaniment of depression. However, anxiety is not a core symptom of depression and thus a separate question is not needed. In practice, anxiety is obvious and easy to detect and in severe depression or bipolar disorder is usually treated with the addition of antianxiety medication (Chokka, Ge, Bougie, Ettrup, & Clerzius, 2021). If on the other hand the depression is mild and reactive, the recommendation is to prescribe St John's Wort (see Section 3.3 below) which is effective in treating not only mild depression but also the feelings of anxiety that often accompany it.

The DEP-6 will be most useful to users if they reduce the questionnaire font size and transfer it to a single-screen computer page, and then highlight the Yes and No answers as the interview proceeds. The DEP-6 can be translated into other languages by using the Internet program called Google Translate (*translate.google.com*) or an equivalent, and then checking for local wording.

3.3. Explanation of the Scoring Guide

An essential accompaniment to the DEP-6 questionnaire is the *scoring guide* (see **Table 3**). The scoring guide is set up so that the most serious disorders appear first, followed all the way down to the least serious disorder, reactive depression. It also includes recommendations for treatment.

As shown on the scoring guide, if *psychosis* or *bipolar disorder* or *biological depression* is indicated, then the patient must be referred to a *psychiatrist*, noting that except in the U.S., the patient will have to see a doctor—a physician—first for a referral. However, psychiatrists are in short supply and very expensive to visit, which makes it much more likely that the patient will only be able to get an appointment to see a physician (Winerman, 2016). If so, the patient or a family member should check beforehand that the physician is up-to-date with prescribing appropriate medication for treating mental disorders.

For treating *reactive depression*, a physician is sufficient. For reactive depression, the evidence is clear that St John's Wort—a natural herbal extract which happens to be a mild antidepressant known as a monoamine oxidase inhibitor (MAOI)—should be prescribed. This recommendation is supported by a meta-analysis of 23 clinical trials conducted with outpatients who were only mildly to moderately depressed, being on average rated at 20/50 or about "40% depressed" on the HRSD depression measure. The results showed that 55% of patients responded to blind treatment with St John's Wort after 2 to 4 weeks of treatment, versus only 22% responding to a blind placebo (Linde, Ramirez, Mulrow, Pauls, Weidenhammer, & Melchart, 1996). The St John's Wort results were obtained with uninformed "blind" administration, but other research (DeNoon,

2008) shows that St John's Wort is even more effective if the patient is given a positive *expectation*. This can be achieved by saying to the patient, truthfully, that: "Research shows that St John's Wort works for many people and it might work in your case."

Cautions are required with all medications, however, and St John's Wort is no exception. The patient should be told firstly that the St John's Wort tablets should be taken only on days when a tablet is absolutely needed, so as to minimize the possibility of psychological overreliance and possible addiction. Related to this, the patient should also be told take the prescribed tablets only as directed and not to buy or use "extras," which they can too easily do because in most countries St John's Wort is available without a prescription. Finally, the patient must be warned, as it states on the label, that St John's Wort should not be taken if the patient is taking any other prescription medicine and especially not if already taking a prescribed antidepressant.

4. Conclusion

The major advantage of the DEP-6 depression measure over all other measures of depression is that it is *the only multi-diagnostic depression measure available*. Existing depression measures not only fail to discriminate clinical-level depression from occasional and perfectly normal feelings of depression but also fail to distinguish the enduring and more serious biological depression from the temporary and less serious reactive depression, and to distinguish unipolar depression from bipolar disorder or from psychosis.

The user targets for the DEP-6 are as follows.

Primary care physicians are arguably the most important user target for the DEP-6 because they are often the first, and in most cases the *only*, port of call made by people who suspect they may have a mental health problem (Ferguson, 2000; Miller, Petterson, Burke, & Phillips Jr, 2014). Primary care physicians need a comprehensive yet *brief* depression screener because many patients come to their doctor complaining of a variety of mental and physical problems and the primary disorder needs to be sorted out quickly. The DEP-6 can be administered on the first visit and the patient can be asked to come back at a later time for a review of the results with an initial diagnosis and treatment recommendation, noting that referral to a psychiatrist is necessary when the disorder is very serious and could require hospitalization.

The second important user target is psychiatrists themselves. The DEP-6 can encourage them not to rely on their patient stereotypes and intuition (see Coyne, Schwenk, & Fechner-Bates, 1995; Parker, 2012) and to more accurately diagnose the specific type of depression and then prescribe medically appropriate treatment.

Psychologists practicing as counselors or therapists are the remaining user target for the DEP-6 screener. The reason for psychologists using the screener is because patients quite often present with a serious type of depression that requires medication, and psychologists, unless they have a master's degree in psy-

chopharmacology, are prevented by law from dispensing it (Lu, 2016; and see the excellent entry in Wikipedia, 2020, on this). The DEP-6 enables the psychologist to efficiently screen for the more serious types of depression and refer these patients to a suitably qualified physician or psychiatrist who can prescribe antidepressant or antipsychotic medication.

What about psychologists and psychiatrists who are conducting *research* on depression? As shown in the present article, existing depression measures are inadequate and do not produce valid results. The DEP-6 should therefore also be used by researchers because it will prevent misleading research findings on depression being published.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

American Psychiatric Association (1980). *Diagnostic and Statistical Manual of Mental Disorders*, *DSM-III*™ (3rd ed.). American Psychiatric Association.

American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders, DSM*-V™ (5th ed.). American Psychiatric Publishing. https://doi.org/10.1176/appi.books.9780890425596

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,* 2163-2177. https://doi.org/10.1176/appi.ajp.161.12.2163

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Manual for Beck Depression Inventory-II*. Psychological Corporation.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An Inventory for Measuring Depression. *Archives of General Psychiatry, 4,* 53-63. https://doi.org/10.1001/archpsyc.1961.01710120031004

Chokka, P., Ge, H., Bougie, J., Ettrup, A., & Clerzius, G. (2021). Anxiety Symptoms in Working Patients with Major Depressive Disorder Treated with Vortioxetine: Associations with Clinical and Treatment Outcomes in the AtWoRC Study. *Therapeutic Advances in Psychopharmacology, 11,* 1-12. https://doi.org/10.1177/20451253211013148

Coyne, J. C., Schwenk, T. L., & Fechner-Bates, S. (1995). Nondetection of Depression by Primary-Care Physicians Reconsidered. *General Hospital Psychiatry*, 17, 3-12. https://doi.org/10.1016/0163-8343(94)00056-J

Craddock, N., & Owen, M. J. (2010). The Kraepelinian Dichotomy—Going, Going…but Still Not Gone. *British Journal of Psychiatry, 196,* 92-95. https://doi.org/10.1192/bjp.bp.109.073429

DeNoon, D. J. (2008, October 23). *50% of Doctors Prescribe Placebos*. https://webmd.com

Ferguson, J. M. (2000). Depression: Diagnosis and Management for the Primary Care Physician. *Primary Care Companion Journal of Clinical Psychiatry*, 2, 173-178.

First, M. B., Williams, J. B. W., Karg, R. S., & Spitzer, R. L. (2016). *Structured Clinical Interview for DSM*-5 *Disorders*: *Clinician Version* (*SCID*-5-*CV*). American Psychiatric Association.

Frances, A. (2013a). *Essentials of Psychiatric Diagnosis* (Revised ed). Guilford.

Frances, A. (2013b). *Saving Normal*. Guilford.

Galatzer-Levy, I. R., & Bryant, R. A. (2013). 636,120 Ways to Have Posttraumatic Stress Disorder. *Perspectives on Psychological Science, 8,* 651-662. https://doi.org/10.1177/1745691613504115

Gawande, A. (2009). *The Checklist Manifesto*. Picador.

Hamilton, M. (1960). A Rating Scale for Depression. *Journal of Neurological and Neurosurgical Psychiatry, 23,* 56-62. https://doi.org/10.1136/jnnp.23.1.56

Hamilton, M. (1967). Development of a Rating Scale for Primary Depressive Illness. *British Journal of Social and Clinical Psychology, 6,* 278-296. https://doi.org/10.1111/j.2044-8260.1967.tb00530.x

Linde, K., Ramirez, G., Mulrow, C. D., Pauls, A., Weidenhammer, W., & Melchart, D. (1996). St John's Wort for Depression—An Overview and Meta-Analysis of Randomised Clinical Trials. *British Medical Journal (BMJ), 313,* 253-258. https://doi.org/10.1136/bmj.313.7052.253

Lu, S. (2016). Iowa Psychologists Can Now Prescribe. *APA Monitor on Psychology, 47,* 30.

Miller, B. F., Petterson, S., Burke, B. T., Phillips Jr., R. L., & Green, L. A. (2014). Proximity of Providers: Co-Locating Behavioral Health in Primary Care and the Prospects for an Integrated Workforce. *American Psychologist, 69,* 443-451. https://doi.org/10.1037/a0036093

Mitchell, P. B. (2012). Bipolar Disorder: The Shift to Overdiagnosis. *Canadian Journal of Psychiatry, 57,* 659-665. https://doi.org/10.1177/070674371205701103

Montgomery, S. A., & Asberg, M. (1979). A New Depression Scale Designed to Be Sensitive to Change. *British Journal of Psychiatry, 134,* 382-389. https://doi.org/10.1192/bjp.134.4.382

Parker, G. (2000). Classifying Depression. Should Paradigms Lost Be Regained? *American Journal of Psychiatry, 157,* 1195-1203. https://doi.org/10.1176/appi.ajp.157.8.1195

Parker, G. (2012). *A Piece of My Mind*: *A Psychiatrist on the Couch*. Macmillan.

Parker, G., Spoelma, M. J., Tavella, G., Alda, M., Hajek, T., Dunner, D. L. et al. (2020). The Bipolar Disorders: A Case for Their Categorically Distinct Status Based on Symptom Profiles. *Journal of Affective Disorders, 277,* 225-231. https://doi.org/10.1016/j.jad.2020.08.014

Rossiter, J. R. (2020). A Brief Mental Disorder Screener Based on Core Symptoms. Working Paper, School of Psychology, Charles Sturt University.

Sadock, B. J., & Sadock, V. A. (2007). *Kaplan & Sadock's Synopsis of Psychiatry* (10th ed.). Lippincott Williams & Wilkins.

Wikipedia (2020). *Psychologist*.

Winerman, L. (2016). By the Numbers: Access to Mental Health Care. *APA Monitor on Psychology, 47,* 22.

World Health Organization (1993). *The ICD*-10 *Classification of Mental and Behavioural Disorders*: *Diagnostic Criteria for Research.* World Health Organization.

Zimmerman, M. (2017). Screening for Bipolar Disorder with Self-Administered Questionnaires: A Critique of the Concept and a Call to Stop Publishing Studies of Their Performance in Psychiatric Samples. *Depression and Anxiety, 34,* 779-785. https://doi.org/10.1002/da.22644