

Outcome Assessment in Depression

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Regular interval administration of outcome measurement tools has proved to be beneficial in improving the quality of care that we all hope to provide for our patients.

Depression is one of the most significant direct and indirect threats to health and wellness. The negative impact of depression on work, productivity, interpersonal relationships, leisure activities, and a sense of well-being and enjoyment of life cannot be emphasized enough.

With the expansion of treatment choices in both psychotherapy and pharmacotherapy, it is becoming increasingly important to monitor patients' progress using both measurement tools and clinical judgment. Measuring improvement and deterioration is paramount in evaluating the need for changing, adding, or maintaining therapeutic interventions. Measuring progress is becoming a clinical practice reality and is no longer limited to research methodology. However, the past decades have witnessed a sole emphasis on one dimension of outcome measurement—symptom severity.

Time-limited pharmaceutical studies propagated the notion that improvement is somehow equivalent to response, which is defined as a 50% reduction in symptom severity. Not only was symptom remission neglected, but more important, the mere definition of a psychiatric disorder—impairment of social, occupational, and other important areas of functioning—was abandoned. Moreover, quality-of-life assessment was seldom mentioned (it has only gained more attention recently).

Comprehensive outcome assessment and measurement emphasize the importance of incorporating the 3 dimensions—symptom severity, functioning, and quality of life—into both clinical and research outcome assessments. This article emphasizes this multidimensional approach and reviews practical instruments that can be incorporated into daily practice.

Defining recovery

To define recovery, a medical analogy is used: imagine a patient who broke her arm in an unfortunate fall. The recovery process is expected to go through 3 stages:

- Symptom reduction: with decreases in pain and limitation of movement through surgical and medical treatments.
- Restoration of functioning: with the ability to gradually go back to work, take care of family needs, and participate in leisure activities through physical therapy and patient education.
- Quality-of-life improvement: with the ability to enjoy work, relationships, fun activities, and having an overall sense of well-being.

The same stages hold true for recovery from depression and other psychiatric illnesses.



Granted, there is an expected overlap between the 3 stages, eg, some residual or chronic symptoms might be lagging and might continue to interfere with functioning or quality of life despite the individual's continuous attempts to function and enjoy life.

Depressive disorders can be chronic and/or relapsing, which strengthens the argument for periodic assessment of intervention outcomes. However, a sole emphasis on symptom reduction seriously limits optimal outcome. The front-line clinician has an obligation to regularly monitor, measure, and optimize interventions.

Measuring outcomes

The implementation of a practical procedure for outcome assessment needs to include measurement tools for symptom severity, functioning, and quality of life. Self-report measures are favored over clinician-rated measures because they save the clinician the effort of scoring and interpreting the results. Clinician-based measures may be added when doubts arise about the reliability of the patient's self-report (minimization or magnification of symptoms). Although this can be easily applied to symptom severity and functioning measures, quality of life is always in the eye of the beholder and can only be self-reported.

It is rewarding to implement self-report measures (that patients can complete in the waiting room) that are compatible with modern definitions of depression, and to administer them at baseline and at regular intervals (eg, every 3 months).

However, the quest to identify a practical and user-friendly set of measures has proved to be challenging for clinicians.

Clinical instruments

Table 1	A partial list of measures that are covered most frequently in PsychINFO and Medline searches
Symptom severity	
Beck Depression Inventory, second version (BDI-II)	
Hamilton Rating Scale for Depression (HAM-D)	
Quick Inventory for Depressive Symptomatology—Self Report version (QIDS-SR)	
Quick Inventory for Depressive Symptomatology—Clinician version (QIDS-C)	
Functioning	
Sheehan Disability Scale (SDS)	
Work and Social Adjustment Scale (WSAS)	
Endicott Work and Productivity Scale (EWPS)	
Global Assessment of Functioning (GAF)	
Quality of life	
Short-Form 36-item health survey (SF-36) or its briefer validated version, the SF-12	
Quality of Life Enjoyment and Satisfaction Questionnaire, short form (QLESQ)	
Quality of Life Inventory (QLI)	

Table 1 lists some of the measures that are covered most frequently in the clinical literature (PsychINFO and Medline searches). For severity of symptoms, the clinician-rated Hamilton Rating Scale for Depression (HAM-D) and the self-report Beck Depression Inventory (BDI) scale, both invented in the 1960s, are probably the most widely studied and used.^{1,2} However, items rated in these scales are not representative of the definition of depression as we know it today, using DSM-IV-TR diagnostic criteria.³

The clinician-rated Global Assessment of Functioning (GAF) scale is widely used, especially since its inclusion in Axis V of DSM-IV.

However, there are conflicting reports about inter-rater reliability, especially among clinicians with little or no training with the GAF.^{4,5}

The NIH-funded Sequenced Treatment Alternatives to Relieve Depression (STAR*D) study focused on naturalistic settings and brought to light measures that are compatible with office and clinic settings. **Table 2** lists clinical instruments whose utility and practicality have been demonstrated and constitute a solid foundation for a clinically based outcome assessment system. Selected measures for each of the 3 outcome measurement domains (symptom severity, functioning, and quality of life) are briefly reviewed below.

The Quick Inventory of Depressive Symptomatology, Self-Report (QIDS-SR) scale is used to measure symptom severity.⁶ It is a 16-item self-report questionnaire with Likert-style answer options from 0 to 3. The clinician administered version covers the same questions. The scores are:

- 9 or less (no depression).
- 10 to 17 (mild to moderate depression).
- 18 or higher (severe depression).

In a sample of 596 patients, Rush and colleagues⁷ found high correlations between the QIDS-SR, and the different versions of the HAM-D (17, 21, and 24 items), at the end of 12 weeks of outpatient treatment for acute depression. In a later study, the investigators demonstrated that the QIDS-SR confirmed response and remission rates as measured by the HAM-D-24 items.⁸

The Work and Social Adjustment Scale (WSAS) is used to measure functioning.⁹ It is a 5-item, self-report scale that measures impairment on a visual analog ranging from 0 to 8 in 5 areas: work,

home management, social activities, private leisure activities, and ability to form/ maintain

Measure	Scale	Strengths	Limitations
Symptom severity	QIDS-16	High correlation with widely used measures; high internal consistency, validity and reliability; covers all DSM-IV and ICD-10 criteria for depression; clinical questions available in a clinician-rated version (QIDS-C); no cost for use with permission	Slightly less sensitive to residual symptoms; measures only the past 7 days; does not have the most straightforward scoring method
Functioning	WSAS	High internal consistency, validity, and reliability; ease of administration; no cost for use with permission	Patients might become aware to how questions are formulated, eg, "because of my disorder, my ability to work is impaired"; has not been widely used until recently
Quality of life	Q-LEADS	Good internal consistency and test-retest reliability; widely used because of its ease; no cost for use with permission	Patients must answer to questions regarding satisfaction with sex life and vision for the future; does not assess coping abilities that may affect quality of life

QIDS-16, brief version for depression; Hamilton, 17-item; ICD-10, International Classification of Diseases; DSM-IV, Diagnostic and Statistical Manual of Mental Disorders; QIDS-C, QIDS-16, clinician-rated version; WSAS, Work and Social Adjustment Scale; Q-LEADS, Quality of Life Enjoyment and Satisfaction Short Form.
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relationships. The WSAS is widely used in psychotherapy and psychopharmacology research.

The Quality of Life, Enjoyment, and Satisfaction Questionnaire, Short-Form is a 16-item self-report scale with Likert-style answer options from 1 to 5.¹⁰ It provides a subjective rating of satisfaction with 14 life activities in addition to 2 items: satisfaction with medication and overall sense of contentment.

Conclusion

Outcome assessment is a multidimensional proposition that incorporates the patient’s subjective report, clinical judgment, and measurement tools. Outcome assessment should incorporate changes in severity of symptoms, functioning, and quality of life. Regular-interval administration of outcome measurement tools has proved to be beneficial in improving the quality of care that we all hope to provide for our patients.

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