Measuring Outcome in the Treatment of Depression: Why You Should Do It and How You Can Do It
A Focus on Measurement-Based Care

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Objectives

• Provide a brief overview of Major Depressive Disorder (MDD) and measurement-based care (MBC)
• Understand the benefits of MBC and commonly used MBC tools
• Understand why measurement-based tools are underutilized
• Discuss possible strategies for implementing MBC tools into clinical practice
IMPACT OF MAJOR DEPRESSIVE DISORDER (MDD)

Madhukar Trivedi, MD
Background

- Depression is the most common diagnosis among patients seen by psychiatrists in the US\(^1\)
- MDD is a serious, chronic, disabling illness affecting more than 350 million people worldwide\(^2\)
- MDD results in a substantial burden of disease to both the individual and society\(^3\)
- Residual symptoms are common and cause significant psychosocial and occupational functional impairment\(^4,5\)

MDD, major depressive disorder; US, United States.

Burden of Disease to the Individual

• Physical
  – MDD is a consistent predictor of the subsequent first onset of a variety of chronic physical disorders, including arthritis, asthma, cardiovascular disease, diabetes, chronic pain, and certain types of cancer

• Financial
  – Incomes of people with MDD are substantially lower than those without depression

• Education
  – MDD is associated with a 60% elevated risk of failure to complete secondary school than otherwise comparable youth

MDD, major depressive disorder.

Persistent Symptoms\textsuperscript{a} in MDD Remitters Are Common and Negatively Affect Outcomes

Proportion of Remitters With Persistent Baseline Symptoms at the End of Step 1 (STAR*D)

- Sad mood: 27.7%
- Restlessness: 18.9%
- Energy: 23%
- Concentration: 22%
- Hypersomnia: 44.3%
- Sleep-onset insomnia: 35.8%
- Weight increase: 20.8%

- Residual symptoms increase the risk for suicide and relapse\textsuperscript{1}
- Residual symptoms have an adverse impact on psychosocial and occupational functioning\textsuperscript{2, 3}

\textsuperscript{a}Persistent symptoms defined as QIDS-SR\textsubscript{16} item score ≥1.
MDD, major depressive disorder; QIDS-SR\textsubscript{16}, Quick Inventory of Depressive Symptomatology-Self Report 16 item; STAR*D, Sequenced Treatment Alternatives to Relieve Depression.

INTRODUCTION TO MEASUREMENT-BASED CARE

Mark Zimmerman, MD
Measuring Outcome: Not the Standard of Care in the Treatment of Depression

- Survey of 314 US psychiatrists
  - 6.5% use scales almost all the time
  - 11.4% use scales frequently
  - 21.2% sometimes use scales
  - 60.8% rarely or never use scales

- Survey of 340 UK psychiatrists
  - 11.2% use scales routinely
  - 30.5% use scales occasionally
  - 58.2% never use scales

UK, United Kingdom; US, United States.

Principles of Outcome Assessment

1. The information collected should be clinically useful
2. The measure should demonstrate good reliability, validity, and sensitivity to change
3. The instrument should be user-friendly (ie, easy to administer and score with minimal training) and should be inexpensive to purchase and implement
4. The measure should meet scientific standards for publication in peer-reviewed journals
5. The measure should have high patient and clinician acceptance

DISCUSSION
Why are measurement-based tools worth using?
Evidence of the Benefit of Measurement-based Care—the Clinical Outcomes in Measurement-based Treatment (COMET) Study

- 83 physicians, 74 primary care sites
- Sites were randomized to treatment as usual vs. measurement-based care (MBC)
- 642 patients randomized and evaluated at 6-month follow-up
- MBC condition: PHQ-9 completed monthly and information faxed to PCP
- Depression diagnoses based on PCP clinical evaluation
- Results (controlling for demographic variables)
  - Remission rate: 46.7% vs. 42.8% (OR 1.59 [1.07-2.37])
  - Response rate: 67.0% vs. 59.7% (OR 2.02 [1.36-3.02])

OR, odds ratio; PCP, primary care physician; PHQ-9, Patient Health Questionnaire-9.
Evidence of the Benefit of Measurement-based Care—the Beijing Study

- 120 psychiatric outpatients with MDD
- Patients were randomized to treatment as usual vs. MBC
- MBC included measuring outcome and prescribed treatment adjustments based on QIDS scores
- Patients treated with either mirtazapine or paroxetine
- Results
  - Remission rate: 73.8% vs 28.8% (p < 0.001)
  - Response rate: 86.9% vs 62.7% (p = 0.002)
  - Number of treatment adjustments was greater in MBC condition: 44 vs. 23 (p < 0.001)

Note: non-US study (China).
MBC, measurement-based care; MDD, major depressive disorder; US, United States; QIDS, Quick Inventory of Depressive Symptomatology.

Why are measurement-based tools underutilized?
Patient Acceptability of Measurement-based Care

- 50 depressed outpatients in ongoing treatment
- Completed the Clinically Useful Depression Outcome Scale (CUDOS), Beck Depression Inventory (BDI), measure of perceived burden and acceptability
  - 98% no burden/minimally burdensome to complete
  - 94% willing to complete at every visit

Patient Acceptability of Scale Completion

- 50 depressed outpatients in ongoing treatment
- Completed CUDOS, BDI, measure of perceived burden and acceptability
  - CUDOS took less time to complete (64% vs 12%)
  - CUDOS less burdensome to complete (50% vs. 10%)
  - Patients preferred to complete the CUDOS in order to monitor the outcome of treatment (40% vs. 14%)

BDI, Beck Depression Inventory; CUDOS, Clinically Useful Depression Outcome Scale.

Frequency of Anxiety and Depression in 3,000 Outpatients in the Rhode Island Hospital Method to Improve Diagnostic Assessment and Service (RIH MIDAS) Project

• Results
  – At least mild depression: 79.3%
  – At least mild anxiety: 64.4%
  – At least mild depression or anxiety: 87.4%

What are some common measurement-based tools?
MBC in Practice: Utilization of Brief and Easily Implementable Patient-reported Outcomes Scales (PROS)

PROS have documented psychometric properties of reliability and validity\(^1,2,3\)

Examples include:

- **QIDS-SR\(^1\)**
  - Quick Inventory of Depression Symptomatology - Self-Report
- **PHQ-9\(^2\)**
  - Patient Health Questionnaire-9
- **CUDOS\(^3\)**
  - Clinically Useful Depression Outcome Scale

MBC, measurement-based care.

Prevalence of Severity Subtypes According to Different Measures of Depression

CUDOS, Clinically Useful Depression Outcome Scale; HAM-D, Hamilton Depression Rating Scale; PHQ-9, Patient Health Questionnaire-9; QIDS, Quick Inventory of Depressive Symptomatology.

What About Anxiety?

• Clinically Useful Anxiety Outcome Scale (CUXOS)
• 20-item scale not disorder-specific
• Psychic anxiety (6 items), somatic anxiety (14 items)
• Discriminates between different levels of severity
  – Empirically derived cutoff points
  – 91.4% completed in < 2 minutes

Key Measurement Based Care: Outcometracker.org

For more information about psychiatric scales for depression, visit http://www.outcometracker.org/scales_library.php

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CLOSING
Recognizing and Responding to Inadequately Treated Major Depressive Disorder (MDD): A Nursing Perspective
Georgia Stevens, PhD, APRN, PMHCNS-BC
Mary D Moller, DNP, ARNP, PMHCNS-BC, CPRP, FAAN
Thursday, October 1, 2015
12:00 – 1:00 EST

Behavioral Health In The Era Of Value-Based Care: Improving Quality & Lowering Costs Through Population Health Management
Monica Oss, M.S
Jed Goldart, MD, MPH
Tuesday, October 6, 2015
12:00 – 1:00 EST

Understanding the Relationship of Pseudobulbar Affect (PBA) and Traumatic Brain Injury (TBI)
Sandeep Vaishnavi, MD, PhD
Edward C. Lauterbach, MD, FANPA, DFAPA
Thursday, October 29, 2015
12:00 – 1:00 EST
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