



UW PACC

Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

BIPOLAR DISORDER IN PRIMARY CARE: MEASUREMENT-BASED CARE

JOSEPH CERIMELE MD MPH

**UNIVERSITY OF WASHINGTON SCHOOL
OF MEDICINE**

9/29/22



SPEAKER DISCLOSURE

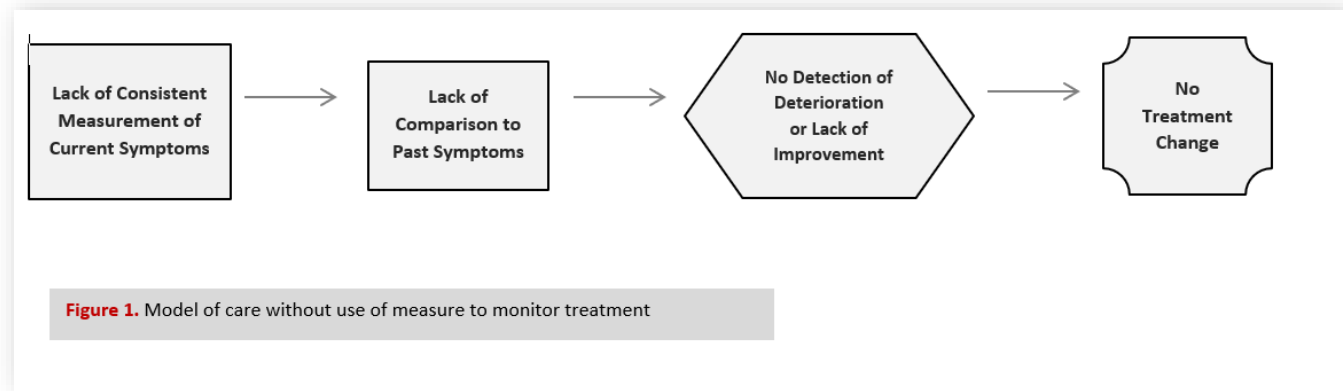
- National Institute of Mental Health
R34MH125935

LEARNING OBJECTIVES

- Review measurement-based care principles
- Describe a new patient-reported symptom measure for bipolar disorder

WHAT IS MEASUREMENT-BASED CARE, AND WHY?

Tries to address:



Through:

1. Systematic administration of clinical measures (commonly symptom measures).
2. Use results to inform clinical decision making at the level of the individual patient
3. Maximize the likelihood that nonresponse to treatment is detected
4. Also population-level assessment

MEASUREMENT-BASED CARE *MODEL*

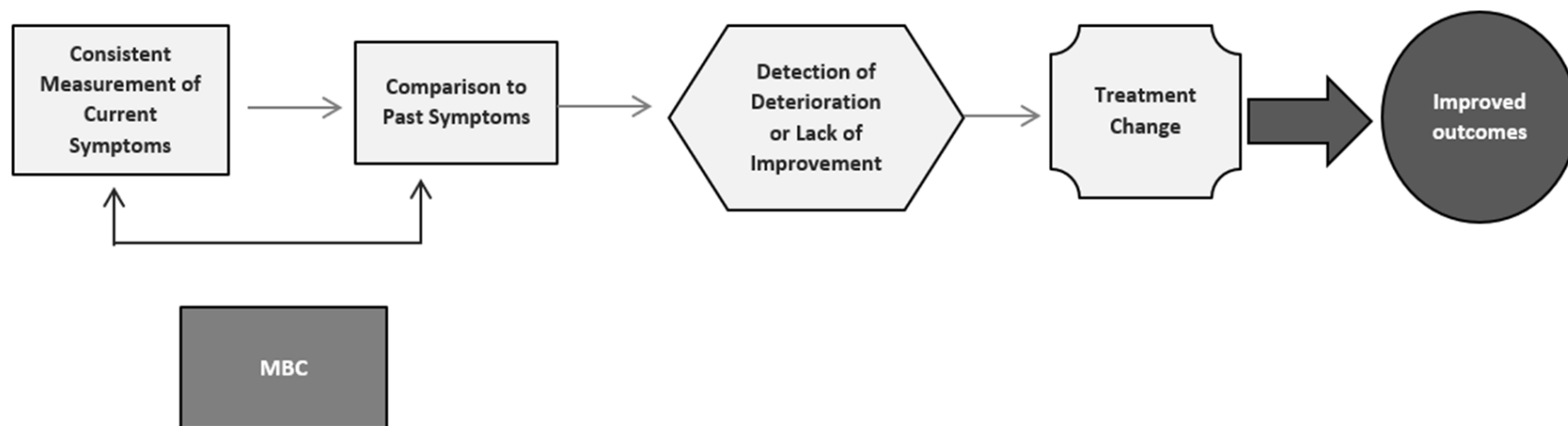


Figure 2. MBC (measurement-based care) promotes consistent symptom measurement and comparison of current to past symptoms

Lewis CC, et al. JAMA Psychiatry. 2019;76:324-335.

Fortney JC, et al. Psychiatric Services. 68(2):179-188, 2017

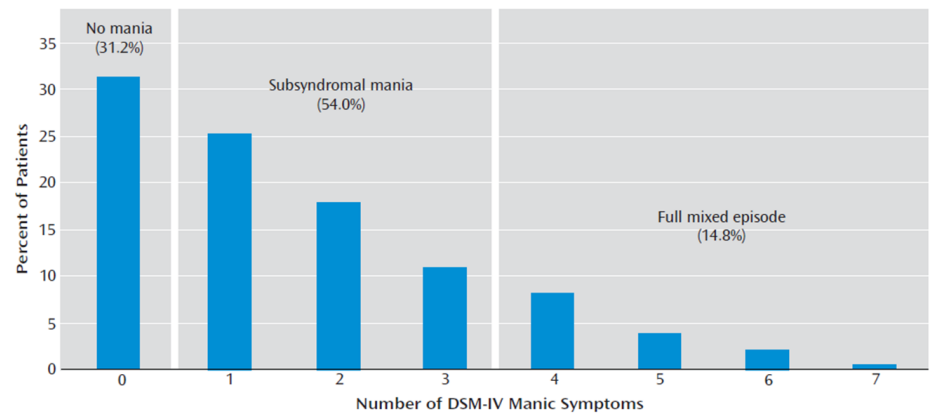
- **IMPORTANCE OF ASSESSING DEPRESSIVE AND MANIC SYMPTOMS**

- High proportion of days with symptoms
- Often depressive symptoms
- Or subsyndromal depressive and hypomanic symptoms

- And 70% of people with bipolar depression report 1 or more concurrent manic symptom

- And presence of residual symptoms associated with worse outcomes

FIGURE 1. Number of DSM-IV Manic Symptoms During an Index Episode of Bipolar Depression in STEP-BD (N=1,380)



Perlis RH, et al. Am J Psychiatry. 2006;163:217-224.
Goldberg JF, et al. Am J Psychiatry. 2009;166:173-181
Judd LL, et al. Arch Gen Psychiatry. 2003;60:261-269.
Bauer M, et al. Br J Psychiatry. 2005;187:87-88.

- CASE EXAMPLE

- Use of MBC
- MBC can inform care. MBC is not the 'treatment'.

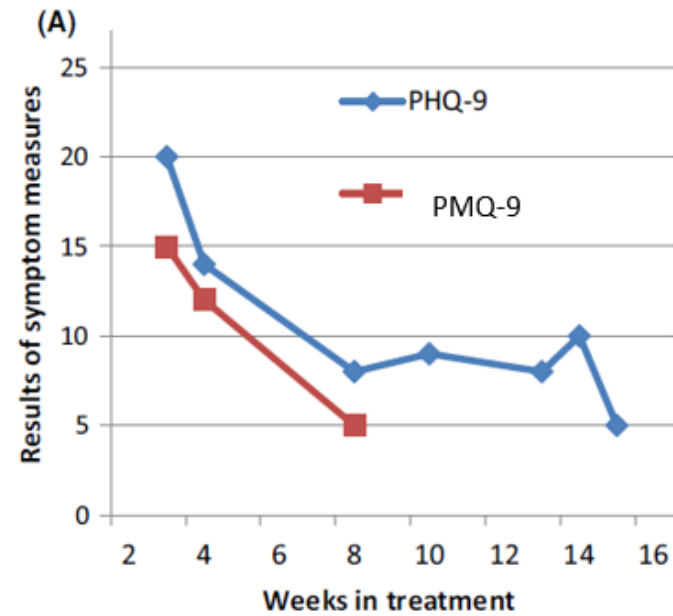


Figure 3. Results of two patient reported symptom measures (PHQ-9 for depressive, and PMQ-9 for manic) over time

Cerimele and Lostutter. *Bipolar Disord.* 2020;22:97-100

RESEARCH PROGRESS AND PLANS

- 1. What bipolar disorder symptom measures exist?
- 2. Developed and evaluated a new self-report manic symptom measure
- 3. Surveyed clinicians about bipolar disorder measures for use in clinical care
- 4. (**ongoing**) – Interviewing individuals diagnosed with bipolar disorder about measures for use in care
- 5. (**next step**) – Clinical trial

1. WHAT BIPOLAR DISORDER SYMPTOM MEASURES EXIST?

- We conducted a systematic review. Also developed a Clinical Utility Score based on: brief, assessed suicidal thoughts, easy to score, domains of reliability and validity, sensitivity to change, and being publicly available
- Organized results based on symptom type assessed, and method of assessment
- Found 28 measures – six categories
 - Clinician observed or patient reported
 - Manic, depressive, or both
- Mix of patient-reported and clinician observed. Variable clinical utility scores.
- Recent measures tended to assess manic/depressive symptoms in outpatient settings. Older measures tended to assess manic symptoms in hospitalized individuals.

2. DEVELOPED AND EVALUATED A NEW SELF-REPORT MANIC SYMPTOM MEASURE

PMQ-9 Evaluation

- Described development
- Psychometric evaluation
- Clinical use

Table 1 Patient Mania Questionnaire-9 (PMQ-9) Scale

Over the past week, how often have you ...	Not at all	Several Days	More Than Half of the Days	Nearly Every Day
1. Had little or no sleep, and still felt energized	0	1	2	3
2. Felt easily irritated	0	1	2	3
3. Felt overactive	0	1	2	3
4. Acted impulsively or done things without thinking about consequences	0	1	2	3
5. Felt sped up or restless	0	1	2	3
6. Been easily distracted	0	1	2	3
7. Felt pressure to keep talking or been told by someone you are more talkative	0	1	2	3
8. Felt argumentative	0	1	2	3
9. Had racing thoughts	0	1	2	3

Score = ___ + ___ + ___ + ___

The Patient Mania Questionnaire (PMQ-9): a Brief Scale for Assessing and Monitoring Manic Symptoms



Joseph M. Cerimele, MD, MPH¹, Joan Russo, PhD¹, Amy M. Bauer, MD MS¹, Matt Hawrilenko, PhD^{1,2}, Jeffrey M. Pyne, MD³, Gregory W. Dalack, MD⁴, Kurt Kroenke, MD⁵, Jürgen Unützer, MD MPH¹, and John C. Fortney, PhD^{1,2,6}

J Gen Intern Med. 2022;37(7):1680-1687

PARTICIPANT CHARACTERISTICS

- Baseline characteristics of **179** individuals diagnosed (by psychiatrists) with bipolar disorder, **presenting in primary care**

DEMOGRAPHICS	N=179
Age	40.4
Gender	73% female
Native American of Alaskan Native	4 (2.2%)
White	130 (59%)
Black	33 (18.4%)
Multi-race	16 (9%)
Hispanic	8 (4.5%)

CLINICAL CHARACTERISTICS	
SCL-20 (depression)	2.5 (0.7)
AMRS (manic symptoms)	10.2 (3.8)
ISS Classification	
<i>Manic or hypomanic</i>	44 (24.7%)
<i>Mixed</i>	57 (32)
<i>Depression</i>	50.7 (32)
<i>Euthymia</i>	20 (11.2)
Past specialty mental health	163 (94%)

SAMPLES AND PSYCHOMETRICS

Sample A (N=114)

- Assessed by survey at the end of 12 months of treatment
- Wide range of diagnoses
- **Psychometrics**
 - **Test-retest reliability**
Pearson correlation coefficient 0.85 ($p < 0.001$)
 - **Concurrent validity**
 - ISS - 0.70 ($p < 0.0001$)
 - AMRS - 0.26 ($p = 0.007$)

Sample B

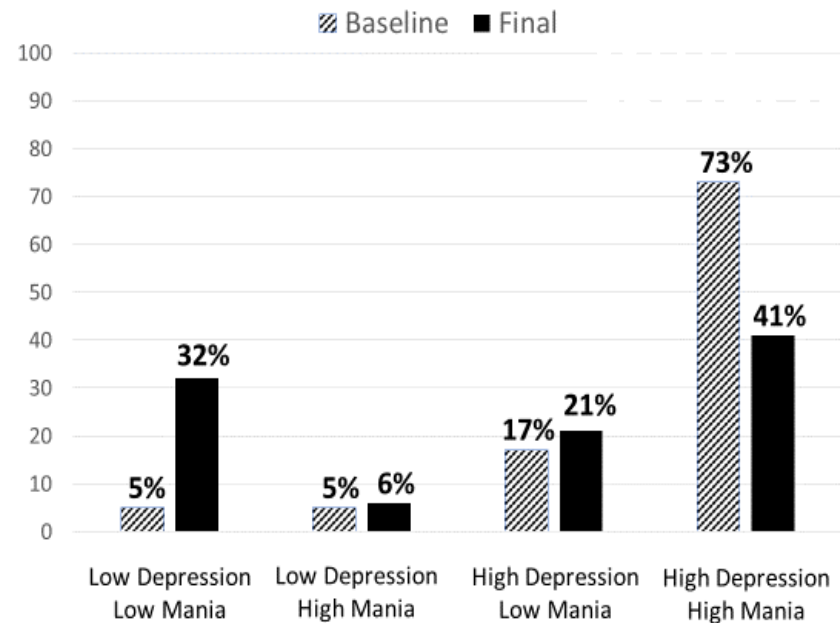
N=179

- Clinical data from 12 months of treatment
- Bipolar disorder diagnosis
- **Psychometrics**
 - **Internal consistency** - $\alpha = 0.88$
 - **Sensitivity to change** - next

CHANGES IN SYMPTOM MEASURES WITH TREATMENT

- **Figure 2.** Proportion of patients who had low and high depressive and mania symptoms at first and final assessment. High depression was defined as a PHQ-9 score ≥ 10 , and high mania was defined as PMQ-9 score ≥ 10 .

N=179 individuals diagnosed with bipolar disorder



PMQ-9 INITIAL CONCLUSIONS

- Strengths and limitations
- Widely used
- Symptom measure for monitoring treatment
- Not a screening instrument
- Also Surveyed clinicians and found... NEXT

Table 1 Patient Mania Questionnaire-9 (PMQ-9) Scale

Over the past week, how often have you ...	Not at all	Several Days	More Than Half of the Days	Nearly Every Day
1. Had little or no sleep, and still felt energized	0	1	2	3
2. Felt easily irritated	0	1	2	3
3. Felt overactive	0	1	2	3
4. Acted impulsively or done things without thinking about consequences	0	1	2	3
5. Felt sped up or restless	0	1	2	3
6. Been easily distracted	0	1	2	3
7. Felt pressure to keep talking or been told by someone you are more talkative	0	1	2	3
8. Felt argumentative	0	1	2	3
9. Had racing thoughts	0	1	2	3

Score = ___ + ___ + ___ + ___

3. SURVEYED CLINICIANS ABOUT BIPOLAR DISORDER MEASURES FOR USE IN CLINICAL CARE

- N = 109 ----- 47% psychiatrists, 33% psychologists, 10% primary care clinicians, 5% social workers
- Working in general mental health clinics (39%), primary care clinics (38%) hospital settings (20%), and bipolar disorder specialty clinics (7%).
- Assessed perceived acceptability and perceived helpfulness
- Findings: Significantly greater preference for *symptom measures* over *quality-of-life* measures
- PMQ-9 / PHQ-9 was the *most preferred* (e.g. highest rating) among options



General Hospital Psychiatry
Volume 73, November–December 2021, Pages 123-125



Letter to the editor

Clinician preferences for using bipolar disorder symptom severity and quality of life scales for measurement-based care

Joseph M. Cerimele ^a, Brittany E. Blanchard ^a, Jared M. Bechtel ^a, John C. Fortney ^{a, b}

Over the last *week*, how often have you...(Please check appropriate box)

	Not At All (0)	Several Days (1)	More Than Half the Days (2)	Nearly Every Day (3)
1. Had little or no sleep, and still felt energized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Felt easily irritated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Felt overactive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Acted impulsively or done things without thinking about consequences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Felt sped up or restless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Been easily distracted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Felt pressure to keep talking or been told by someone you are more talkative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Felt argumentative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Had racing thoughts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Little interest or pleasure in doing things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Feeling down, depressed, or hopeless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Trouble falling or staying asleep, or sleeping too much	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Feeling tired or having little energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Poor appetite or overeating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Feeling bad about yourself or that you are a failure or have let yourself or your family down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Trouble concentrating on things, such as reading the newspaper or watching television	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Thoughts that you would be better off dead, or of hurting yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HOW MIGHT A CLINICIAN OR PRACTICE CHOOSE WHICH SYMPTOM MEASURE TO USE?

- First – Patient-reported or clinician-observed?
- Second – How many measures? (i.e. 1 or 2?)

- Then:
- Consider clinical setting
- Consider current use of measures in practice
- Consider setting bipolar disorder prevalence
- And clinician expertise/generalist with bipolar disorder
- Timing and duration of treatment
- Patient preference

Kroenke K. Fam Pract 2018; 35:1–3

PRACTICAL MATTERS - MEASURES IN PRACTICE

- Who chooses? “Clinic” or clinician
- Or patient (reviewed previously)
- When is the measure administered
- Consolidating results
- Reviewing and interpreting the results
- AND how do results inform care

CONCLUSIONS

- 1. Measurement-based care is a strategy to monitor clinical status of *individual patients* and *clinical populations*, and can inform treatment decisions
- 2. A new, validated, patient-reported manic symptom measure (PMQ-9) can be combined with the PHQ-9 in MBC for individuals diagnosed with bipolar disorder