The Brief Addiction Monitor (BAM):

A Tool to Support Measurement-based Care for People with Substance Use Disorders

Dominick DePhilippis, PhD  Eric J. Hawkins, PhD
Education Coordinator  Associate Director
Philadelphia CESATE  Seattle CESATE

Centers of Excellence in Substance Addiction Treatment and Education

Slides Courtesy of the Philadelphia & Seattle CESATEs
James R. McKay, PhD, Director (Philadelphia)
Andrew J. Saxon, MD, Director (Seattle)

Our agenda…

- What is the BAM?
  - Development & Features
  - Contents & Scoring
- Clinical use of the BAM
  - Integrating the BAM into clinical encounters
  - Treatment Planning
- Programmatic use of the BAM
- The BAM in VA
  - Implementation History
  - A Closer Look at National BAM Data
    - Intake & Follow-up Administrations
    - Substance use
What is the BAM?

Development of the Brief Addiction Monitor (BAM)

• Originally prompted by VA’s need to assess patient “outcomes” in an valid and efficient manner.

• Efficient system also needed to monitor patient progress and provide guidance on modifications to treatment when necessary (the MBC rationale)

• Emphasis of measuring clinically useful factors:
  – Substance use
  – Other indicators of relapse risk
  – Recovery-oriented behaviors
Features of the BAM

- Brief (17 items); modal administration time is 5 mins
- Flexible: administered via self-report or interview
- Multi-dimensional, with no single summary score validated so far
- Items selected from valid/reliable measures
- Initial item selection based on research on predictors of relapse and outcome
- Data readily integrated into treatment planning
- Categorical or continuous response options to items

BAM Content: Domains & Items

<table>
<thead>
<tr>
<th>Substance Use</th>
<th>Risk Factors</th>
<th>Protective Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any alcohol use</td>
<td>Craving</td>
<td>Self-efficacy</td>
</tr>
<tr>
<td>Heavy alcohol use</td>
<td>Sleep problems</td>
<td>Self-help</td>
</tr>
<tr>
<td>Drug use</td>
<td>Mood</td>
<td>Religion/spirituality</td>
</tr>
<tr>
<td>Risky situations</td>
<td>Work, school</td>
<td></td>
</tr>
<tr>
<td>Family/social problems</td>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>Physical health</td>
<td>Social supports for recovery</td>
<td></td>
</tr>
</tbody>
</table>
BAM Scoring

- Each BAM item, ranging in value from 0 to 30, can be considered a “score” on which a patient’s status can change.
  - End users are strongly encouraged to attend to the item-level data because they have direct implications for treatment planning.
- Each domain has an associated composite score.
  - USE = Sum of items 4, 5, 6; Range is 0 to 90
  - RISK = Sum of Items 1, 2, 3, 8, 11, 15; Range is 0 to 180
  - PROTECTIVE = Sum of items 9, 10, 12, 13, 14, & 16; Range is 0 to 180
  - Treatment seeks to maximize the Protective to Risk ratio in an effort to initiate and maintain abstinence, i.e. a Use score=0.
  - Additional psychometric evaluation of these scores is needed before they can be more extensively applied to clinical decision-making.

Clinical use of the BAM: Integrating the BAM into Clinical Encounters
Integrating the BAM into clinical encounters

- Integrate “BAM Sessions” into group or individual sessions
  - Use the BAM as the content-focus of a therapy session.
  - BAM(s) completed prior to the session.
  - Provider enters data into the Scoring Template.
  - Graphs generated by the Scoring Template shared with patient(s) at subsequent session.
  - Patient(s) discuss results vis-à-vis their needs, resources.
  - Narrative of feedback informs treatment planning.
  - Clinical hypotheses are tested via subsequent BAM administrations.

SUD therapy using the BAM

- The following 5 slides depict how BAM data could...
  - Test a clinically hypothesized relationship between a patient’s alcohol use and self-help involvement
  - Test the clinical effectiveness of a change to the treatment plan, i.e. addition of pharmacotherapy to manage sleep disturbances self-medicated by alcohol misuse.
Graph #1: Change in Alcohol Use

Days Used in Past 30 Days

- BAMQ4: Alcohol Use
- BAMQ5: Excessive Alcohol Use

Graph #2: Change in Self-Help Meeting Attendance

Days Attended Self-Help Meetings

2017 CTN WEBINER
The Brief Addiction Monitor (BAM)
D. DePhilippis, PhD & E. J. Hawkins, PhD
August 14, 2017
Clinical use of the BAM:
Treatment Planning
Treatment Planning with the BAM

- BAM data can help…
  - determine the patient’s strengths
  - indicate the presence of a problem
  - provide evidence of goal achievement by measuring progress on objectives.
  - select and measure the effectiveness of interventions for specific deficiencies in the patient’s lifestyle.
- BAM PGOI content aligned with the 2016 VA-DoD CPGs is available from the CESATE.

**Problem #1 (Active):** John Doe complains that his opioid use ‘has gotten way out of hand’ as evidenced by:
  - John stated he used opioids on 16 of the past 30 days. (BAM Item 7e)
  - John reported that he has been considerably bothered by drug craving in the past 30 days. (BAM Item 8)
  - John reports slight confidence to be abstinent from drugs in the next 30 days. (BAM Item 9)
  - John reports that in 20 of the past 30 days he has been in situations or with associates that put him at risk for drug use. (BAM Item 11)

**Relevant Strength:** John reports that he has been in daily contact with family and friends supportive of his recovery (BAM item 16)

**Goal #1:** John will lead a sober lifestyle.

**Objective #1:** By (a certain date), John will demonstrate a 50% reduction in his Risk Score from the baseline BAM assessment on (date).

**Intervention #1:** From (start date and end date), (provider name) will provide John Doe with training on craving management skills during his weekly individual therapy sessions (BAM Item 8 – Risk Reduction).

**Intervention #2:** On (date), (provider name) will provide John with a list of 12-step meetings within walking distance (.25 miles) of John’s home. (BAM Item 10 – Protective Increase)
Programmatic use of the BAM

How can Managers use BAM data?

- Program evaluation
  - Is the program reducing substance consumption?
  - How have craving data changed since the program-wide implementation of AUD pharmacotherapy?
- Supervision
  - Are treatment plans individualized and adaptive to each Veteran’s unique, dynamic constellation of problems and strengths?
  - Are BAMs being administered as your program stipulates?
Change in BAM Factor Scores

<table>
<thead>
<tr>
<th>BAM1</th>
<th>BAM2</th>
<th>BAM3</th>
<th>BAM4</th>
<th>BAM5</th>
<th>BAM6</th>
</tr>
</thead>
<tbody>
<tr>
<td>88.9</td>
<td>72.9</td>
<td>53.2</td>
<td>47.4</td>
<td>46.6</td>
<td>44.3</td>
</tr>
</tbody>
</table>

Risk Score, Protective Score, Use Score

Change in Substance Use and Craving

% Reporting in the Past 30 Days

- Any Alcohol Use
- Heavy Alcohol Use
- Any Drug Use
- Any Craving
- Any Substance Misuse

2017 CTN WEBINER
The Brief Addiction Monitor (BAM)
D. DePhilippis, PhD & E. J. Hawkins, PhD
August 14, 2017
Change in Risk Factors

Change in Protective Factors
Change in Craving

BAM 1: BOTHERED BY CRAVING
- Not At All: 25%
- Slightly: 12%
- Moderately: 13%
- Considerably: 31%
- Extremely: 26%

BAM 2: BOTHERED BY CRAVING
- Not At All: 31%
- Slightly: 6%
- Moderately: 28%
- Considerably: 6%
- Extremely: 13%

The BAM in VA: Implementation History
History of the BAM in VA

- Initially implemented in 2012
- VA specialty-care addiction programs **encouraged but not required** to administer at baseline and follow-up
- Designed to facilitate measurement-based care for substance use disorders
  - Measurement-based care in Mental Health Initiative (2016)

Measure Administrations

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDC</td>
<td>5,229,997</td>
<td>5,091,763</td>
<td>4,825,912</td>
<td>4,846,416</td>
<td>4,880,249</td>
<td>4,811,756</td>
<td>4,574,944</td>
<td>3,760,488</td>
<td>79,421</td>
</tr>
<tr>
<td>BAM</td>
<td>70,574</td>
<td>74,529</td>
<td>78,573</td>
<td>27,647</td>
<td>196</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI2</td>
<td>69,193</td>
<td>106,687</td>
<td>116,871</td>
<td>94,553</td>
<td>75,148</td>
<td>54,243</td>
<td>30,280</td>
<td>13,265</td>
<td>359</td>
</tr>
<tr>
<td>CIWA-AR</td>
<td>90,049</td>
<td>52,245</td>
<td>24,289</td>
<td>7,709</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GAD-7</td>
<td>71,417</td>
<td>36,275</td>
<td>23,440</td>
<td>6,008</td>
<td>9</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDEX OF ADL</td>
<td>243,728</td>
<td>267,142</td>
<td>226,442</td>
<td>79,621</td>
<td>13</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>MORSE FALL SCALE</td>
<td>2,039,884</td>
<td>1,930,912</td>
<td>1,764,051</td>
<td>1,707,629</td>
<td>1,478,571</td>
<td>1,191,589</td>
<td>594,404</td>
<td>71,099</td>
<td>574</td>
</tr>
<tr>
<td>PC PTSD</td>
<td>1,776,933</td>
<td>1,837,860</td>
<td>1,956,634</td>
<td>2,393,837</td>
<td>1,903,465</td>
<td>1,589,732</td>
<td>1,416,057</td>
<td>1,022,803</td>
<td>21,412</td>
</tr>
<tr>
<td>PCLC</td>
<td>184,477</td>
<td>209,924</td>
<td>209,740</td>
<td>186,893</td>
<td>157,477</td>
<td>133,344</td>
<td>57,048</td>
<td>45,101</td>
<td>1,036</td>
</tr>
<tr>
<td>PHQ-2</td>
<td>3,209,763</td>
<td>4,167,884</td>
<td>4,033,068</td>
<td>4,018,205</td>
<td>4,011,181</td>
<td>3,950,452</td>
<td>3,734,220</td>
<td>2,827,685</td>
<td>56,944</td>
</tr>
</tbody>
</table>

- The dates of data availability are measure dependent
- Consistent data for long-standing measures (AUD-C, PHQ2, PTSD Screen) starting in 2008
- Other measures available for fewer years/select cohorts
Closer Look at VA’s National BAM Data: Administrations at Intake & Follow-up

Number of Intakes and Percent with a BAM
Number of Intakes with an Intake and Follow-up BAM

VA Facilities Administering BAM

- 104 of 129 medical centers
  - administering BAM at baseline
Closer Look at VA’s National BAM Data: Substance Use at Intake & Follow-up

Percentage of Patients with an Alcohol Use Disorder Abstinent from Alcohol at Intake and Follow-up

Sample sizes range from 845 to 1531
Percentage of Patients with a Drug Use Disorder Abstinent from Drugs at Intake and Follow-up

Sample sizes range from 780 to 1377

Percentage of Patients with Both an Alcohol and Drug Use Disorder Abstinent from Both Alcohol and Drugs at Intake and at Follow-up

Sample sizes range from 355 to 1106
Linking BAM data to Other Data Variables

- Link BAM data to other VA demographic, clinical and utilization measures
  - TBI diagnoses
  - Gender, age, marital status, race, service connection disability, ethnicity
  - Substance use and mental health diagnoses
  - Inpatient admissions and outpatient utilization
  - Medications
  - Death and cause of death

Questions
THANK YOU FOR YOUR PARTICIPATION