Using administrative CANS data for benchmarking and outcomes monitoring in state-wide Wraparound initiatives

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CANS is one of many assessments of youth functioning used in SOCs

• Developed by Dr. John Lyons
• Often customized for each site
  – Comprised of 40-50 core items, divided into 5-6 domains
  – In-depth modules can also be used for more information on topics relevant to the particular youth
• A professional administers the tool based on their knowledge of the youth and family, typically every 3-6 months from enrollment
  – Needs are rated from 0, “No evidence” to 3, “Immediate/Intensive Action Needed”
  – Strengths are scored from 0, “Centerpiece Strength” to 3, “No Strength Identified”
CANS and Wraparound are being implemented in nearly every state.
CANS and Wraparound: Points of connection

• Focus on the whole family, not just the “identified child”
• Base planning on presence of Needs and Strengths rather than symptoms or deficits
• Aim to identify issues that demand action (Needs) or that could be leveraged into productive strategies that bolster the family’s existing capacities (Strengths)
CANS and Wraparound: Points of connection

• Data-informed planning
• Measurement-based treatment to target
• Accountability
• Promoting transparency
• Teamwork
• Individualization of care
## Decision support promoted by CANS

<table>
<thead>
<tr>
<th>Decision Support</th>
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*From Lyons, 2012*
Use of CANS in Wraparound

Phase 1: Engagement and Support

Engagement and Support

CANS used for eligibility/authorization

“Immediate action” items prioritized for crisis plan

CC uses CANS to help engage family, learn their story, and discover strengths and needs in a comprehensive, ecologically based way

Team Preparation

CC uses CANS data to:

- Research options for strategies, supports, and evidence based treatments to be discussed at first team meeting
- Consider who may be critical to invite to first team meeting
Use of CANS in Wraparound

Phase 2: Plan Development

- CANS used as a basis for exploring/exploring on family strengths and needs at first team meeting
- CANS is used as one basis for brainstorming services and supports for Plan of Care
- CANS is considered as an option for monitoring progress toward needs and achieving priority outcomes
Use of CANS in Wraparound

**Phase 3: Implementation**

- CANS data are reviewed in team meetings as one way of monitoring progress toward meeting needs, achieving outcomes.
- CANS data are reviewed against strategies in the Plan of Care.
- CANS data are used to evaluate whether to begin transition.

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Phase 3

Implementation
Use of CANS in Wraparound

**Phase 4: Transition**

- **CANS data are used as one basis for beginning transition out of formal wraparound**
- **History of CANS scores are included in the documentation prepared for the family as they exit formal wraparound**
### Decision support promoted by CANS

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National CANS and Wrap data project:
provide guidance for program and system-level CANS usage

• What are the typical strengths and needs of wraparound-enrolled youth and families?
• What services are needed in service arrays in care management entities (CMEs) and wraparound initiatives?
• What are “benchmarks” for trajectories of improvement on CANS over time?
• What is the variation in CANS profiles across states and sites?
2843 Wraparound youth from 5 states with Baseline and 6 Month CANS

- Average age of 12.2 years
- Assessments done within 45 days (on either side) of Wraparound enrollment date and 6-months
- Majority of items appear in all four datasets, but may be listed under different domains or modules, therefore data analyzed at an item-level

Gender:
- Male 64%
- Female 36%

Age at Baseline:
- Under 12 years old 32%
- 12 or 13 Years Old 22%
- 14 or 15 Years Old 28%
- 16+ Years Old 18%

Race:
- White 58%
- Black 33%
- Multi-racial or Other 6%

Ethnicity:
- Hispanic 20%
- Non Hispanic 55%
- Unknown / Not Reported 25%
Most prevalent strengths (rated 0 or 1) at Baseline and 6 Months
Most prevalent needs (rated 2 or 3) at Baseline and 6 Months
At 6 months, the top 5 most prevalent needs are met for 12-16% of youth.

Change from Baseline to 6 Months for Top 5 most Prevalent Needs (n=~2800)

- **Impulsivity**
  - Newly Identified: 7%
  - Continuity of Need: 65%
  - Need Met: 12%
  - Maintenance: 15%

- **Anger Control**
  - Newly Identified: 7%
  - Continuity of Need: 62%
  - Need Met: 15%
  - Maintenance: 15%

- **Oppositional**
  - Newly Identified: 9%
  - Continuity of Need: 59%
  - Need Met: 15%
  - Maintenance: 17%

- **Social Functioning**
  - Newly Identified: 10%
  - Continuity of Need: 56%
  - Need Met: 16%
  - Maintenance: 18%

- **Judgement**
  - Newly Identified: 9%
  - Continuity of Need: 55%
  - Need Met: 16%
  - Maintenance: 20%

- 10-20% of youth get at least one need met within 6 months.
- 7-9% of youth have newly identified needs at 6 months, compared to baseline.
Males have significantly higher needs scores at baseline than females.
Younger youth who enter Wraparound have significantly more intense needs

- Impulsivity
- Anger Control
- Oppositional
- Social Functioning
- Judgement

No Evidence of Need
Immediate/Intensive Action Needed

- Under 12
- 12 or 13 Years Old
- 14 or 15 Years Old
- 16+ Years Old
Black and multiracial youth enter Wraparound with significantly lower levels of needs.

- **Impulsivity**
- **Anger Control**
- **Oppositional**
- **Social Functioning**
- **Judgement**

- **White**
- **Black**
- **Multiracial or Other**

![Bar Chart]

*No Evidence of Need*

*Immediate/Intensive Action Needed*
Despite demographic differences, site/state predicts scores a lot more

• Preliminary regression analyses indicate that site/state explains more variance in CANS scores than race, age, or gender, combined
  – Differences in CANS implementation may impact scores

• Analysis on data from the three states with the largest samples
  – Each had 700-900 youth with matched baseline and 6-month CANS data; total n = 2581
There are significant differences in intensity of needs by state

- Anger Control
- Impulsivity
- Oppositional
- Family Functioning
- School Behavior

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<th>Immediate/Intensive Action Needed</th>
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<td>State A (n = 951)</td>
<td>1.00</td>
<td>2.00</td>
</tr>
<tr>
<td>State B (n = 855)</td>
<td>1.50</td>
<td>2.50</td>
</tr>
<tr>
<td>State C (n = 775)</td>
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No Evidence of Need
Immediate/Intensive Action Needed
Top strengths are also significantly different across implementation contexts.
What is driving state-level differences?

**States A & C**

- **Population?**
  - Data from all youth receiving Wraparound in state, regardless of funding stream

- **Timeframe?**
  - Data from 2014 & 2015

- **Implementation?**
  - External reviewer responsible for completing baseline CANS for authorization (and often reauthorization)

**State B**

- **Population?**
  - Data from youth receiving Wraparound through 1915i waiver

- **Timeframe?**
  - Data from 2008-2012

- **Implementation?**
  - Staff internal to the Wraparound provider organization (often the facilitator) responsible for completing the CANS
Initial implications for systems

- Analyze demographic trends locally to explore and remedy underlying dynamics
  - Is the system racially biased? Are the algorithms? Are there less-intensive alternatives?
- Monitor and foster data integrity
  - Have consistent, possibly external, CANS administrators
  - Consider how CANS implementation and use may impact data
  - Encourage meaningful use of data for practice
    - Feed information back at all levels
    - Incorporate into supervision
Still a lot of un-answered questions and analyses needed

• Can national benchmarks be established?  
  – Especially given state-level differences
• What accounts for the most variance in scores?
• What amount of change can be expected at 12 months?
• What predicts change over time?  
  • Are there particular needs and strengths that are more easily resolved?
• Can youth be categorized into different profiles based on their needs and/or strengths?  
  – Do those need/strength clusters predict change?