The Service Process Adherence to Needs and Strengths (SPANS): Extending the CANS

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Enhancing the Child and Adolescent Needs and Strengths (CANS)
- Extends the CANS to address how well services and supports address identified needs and strengths.
- Uses the CANS modular structure so that flexibility is maintained.
- Can provide feedback at the individual, program or system level to identify training gaps, as well as resource gaps

Child & Adolescent Needs & Strengths (CANS)*
- Decision support for treatment and service planning
- Monitor outcomes (less intensive needs, greater strengths) over time
- Communication tool to provide a common language for professionals and families

*Clyns, Sulli & Lee, 1999

CANS
- Needs - Child or family needs identified through the CANS as requiring action (2 or 3) are in the plan
- Child and family strengths are identified through the CANS as areas to build on (0 or 1) are in the plan

Needs and strengths are evidenced in progress notes, other documentation or interview

CANS Domains & items

Care Intensity
- Urgency
- Monitoring
- Treatment
- Medication
- Rehabilitation
- Prevention

Child Safety
- Abuse
- Neglect
- Aggression
- Abduction
- Transportation

Caregiver Capacity
- Physical
- Emotional
- Behavioral
- Social
- Financial

Other
- Disruptive Behavior
- Unemployment
- Incarceration
- School Attendance
- Alcohol Use
- Drug Use
- Mental Health Needs
- Social Skills
- Communication
- Mental Health Needs
- Substance Abuse
- Other Risk Behaviors
- Intellectual Development
- Physical/Final Health
- Family Relationships
- School Behavior
- Social Environment
- Social Skills
- Communication
Could the CANS have another use? Could it be used to monitor quality?

Development of the Service Process Adherence to Needs & Strengths (SPANS)
- Developed to meet a need for system accountability in decentralized systems
- Allegheny County, Pittsburgh PA System of Care Grant Site
- Sitka, Alaska, Alaska Youth Initiative
- Both sites were using the Child and Adolescent Needs and Strengths (CANS) for decision-support, to monitor outcomes and for a common language.

SPANS Process
- Review the Record
- Complete the CANS
- Transfer CANS scores to the SPANS
- Review the record to examine how services and supports were provided to address needs (scores = 2 or 3) or build strengths (scores = 0 or 1).
- Record whether progress was made in each need or strength item.

Example of SPANS Scoring - Needs

Pilot Test
- Five Records
- Using the SPANS we identified unmet service and support needs in individual records
- Also identified unmet system needs (e.g. psychiatric time)
- Identified key training areas (e.g. using strengths in plans)
Pilot Data – Sample Results

In Record 3, Parent needs were a focus of the first plan.
• Opportunities for improvement would be to revise the next plan to include child strengths.

Taking it to scale

• The SPANS was used in an evaluation of Behavioral Health Overlay Services – services provided to youth in child welfare and juvenile justice group homes.
• The study was undertaken to better understand the characteristics of youth served, service provision, as well as the cost and outcomes of care.
• The case records of a random sample of youth served in these programs statewide were reviewed.

Study Design

• The treatment records of a random sample of children and youth receiving services were selected.
• The sample was stratified by whether a child is in a child welfare or juvenile justice placement, size of the facility (small, medium, and large) and for racial / ethnic balance.

Demographics

<table>
<thead>
<tr>
<th></th>
<th>Juvenile Justice N=101</th>
<th>Child Welfare N=97</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female 25 24%</td>
<td>Male 75 76%</td>
</tr>
<tr>
<td></td>
<td>Other 3 3%</td>
<td>Other 11 11%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>White 52 52%</td>
<td>Black 44 44%</td>
</tr>
<tr>
<td></td>
<td>Other 3 3%</td>
<td>Other 11 11%</td>
</tr>
<tr>
<td>Age</td>
<td>Mean (Std) 15.7 (16)</td>
<td>Mean (Std) 15.3 (14)</td>
</tr>
<tr>
<td></td>
<td>SD 1.7</td>
<td>SD 2.7</td>
</tr>
</tbody>
</table>

Method

Implementation / Fidelity: For each domain, items were summed within each domain and divided by the number of valid responses in that domain. Each domain has a score of 1 to 5, with ‘1’ indicating low fidelity and ‘5’ indicating high fidelity to treatment plan recommendations.

Sample findings

<table>
<thead>
<tr>
<th></th>
<th>JJ (n=101)</th>
<th>CW (n=97)</th>
<th>p; p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity of Abuse</td>
<td>57%</td>
<td>10%</td>
<td>75.8; p&lt;.01</td>
</tr>
<tr>
<td>Duration of Abuse</td>
<td>50%</td>
<td>7%</td>
<td>103.5; p&lt;.01</td>
</tr>
<tr>
<td>Stage of Recovery</td>
<td>55%</td>
<td>10%</td>
<td>32.9; p&lt;.01</td>
</tr>
<tr>
<td>Peer Involvement in Substance Use</td>
<td>50%</td>
<td>9%</td>
<td>50.7; p&lt;.01</td>
</tr>
<tr>
<td>Parental Involvement in Substance Use</td>
<td>53%</td>
<td>41%</td>
<td>8.8; p&lt;.05</td>
</tr>
</tbody>
</table>
SPANS Substance Abuse Complications Fidelity

<table>
<thead>
<tr>
<th></th>
<th>CW (n=32)</th>
<th>JJ (n=73)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No fidelity</td>
<td>19 (60.4%)</td>
<td>13 (17.8%)</td>
</tr>
<tr>
<td>Low</td>
<td>3 (9.4%)</td>
<td>6 (8.2%)</td>
</tr>
<tr>
<td>Partial</td>
<td>8 (25.0%)</td>
<td>13 (17.8%)</td>
</tr>
<tr>
<td>Moderate</td>
<td>0 (0%)</td>
<td>18 (24.7%)</td>
</tr>
<tr>
<td>High fidelity</td>
<td>2 (6.3%)</td>
<td>23 (31.5%)</td>
</tr>
</tbody>
</table>

X²=27.07; p<0.001

Caregiver Needs & Strengths Percent with 2s and 3s

<table>
<thead>
<tr>
<th></th>
<th>CW (n=var)</th>
<th>JJ (n=var)</th>
<th>X²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>10%</td>
<td>15%</td>
<td>12.3</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>Supervision</td>
<td>38%</td>
<td>45%</td>
<td>nsd</td>
<td></td>
</tr>
<tr>
<td>Involvement</td>
<td>47%</td>
<td>31%</td>
<td>nsd</td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>33%</td>
<td>35%</td>
<td>nsd</td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>19%</td>
<td>14%</td>
<td>nsd</td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td>44.6%</td>
<td>35%</td>
<td>12.8</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>Residential</td>
<td>13%</td>
<td>14%</td>
<td>nsd</td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>12.7%</td>
<td>4%</td>
<td>nsd</td>
<td></td>
</tr>
</tbody>
</table>

¹ No range from 37.00 due to TPRs

Caregiver Needs and Strengths Fidelity

<table>
<thead>
<tr>
<th></th>
<th>CW (n=var)</th>
<th>JJ (n=var)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No fidelity</td>
<td>21 (61.8%)</td>
<td>38 (59.4%)</td>
</tr>
<tr>
<td>Low</td>
<td>8 (23.5%)</td>
<td>13 (20.3%)</td>
</tr>
<tr>
<td>Partial</td>
<td>4 (11.8%)</td>
<td>10 (15.6%)</td>
</tr>
<tr>
<td>Moderate</td>
<td>1 (2.9%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>High fidelity</td>
<td>0 (0%)</td>
<td>3 (4.7%)</td>
</tr>
</tbody>
</table>

nsd

Relationship of fidelity to outcomes

- In all domains, there was a positive relationship between fidelity to the treatment plan and the degree of progress the child made while in treatment. That is, outcomes improve as fidelity increases.

Instrument revisions

- Adding a section to the SPANS so the needs and strengths of children and youth could be distinguished from those of their parent / caregiver
- Adding a ‘implementation’ codes, that indicate whether services were implemented as intended, so that barriers to service provision can be systematically addressed.

Next steps

- Further explore the relationship between fidelity and outcomes using more stringent measures and for a larger number of cases (n = 300)
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