Network Analysis to Inform the Development of the Connecticut Children’s Behavioral Health Network of Care

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Context in Connecticut in 2014

PA 13-178: Passed by the Connecticut General Assembly in December of 2013
- Directed the Department of Children and Families to produce a children’s behavioral health plan for the state by October 2014

The PA 13-178 Advisory Committee determined the importance of conducting an analysis of the network of care to:
- Examine the level of integration and collaboration between service sectors, providers and family members

Connecticut received a SAMHSA System of Care Implementation Grant in 2014 (CONNECT).
- One goal was to assess the behavioral health network of care
Network Analysis Workgroup

A combined workgroup of the PA 13-178 Advisory Committee and CONNECT

The work of this committee includes a number of network assessments including:
- Perspective of community pediatricians;
- Input from families obtained through community conversations;
- Behavioral health providers perception of collaboration;
- Assessment of school collaboration with network of care.

Today we will focus on the behavioral health assessment
Background

Collaboration is “...a process in which organizations exchange information, alter activities, share resources, and enhance each other's capacity for mutual benefit and a common purpose by sharing risks, responsibilities, and rewards.” (Himmelman, 2004)

Collaboration is a measure of **service system maturation:**

– Systems of care are intended to provide access to a seamless array of services (Hernandez & Hodges, 2003; Hodges et al., 2003)
Collaboration Survey: Methods

**Web-based survey** to assess:

The level/types of collaboration between agencies serving children with emotional/behavioral difficulties and their families

Survey includes the *Levels of Collaboration Survey* (Frey, et al)

Survey also includes questions about:

- getting and receiving referrals
- agencies respondents would like to collaborate more
- open ended questions regarding barriers and facilitators of collaboration
- what else is needed in their community to support children with emotional and behavioral difficulties and their families
Three sources were used to **develop lists of potential participants:**

- United Way/211 database of providers
- Department of Children and Families contracted programs
- Organizations active in local network of care

Network of care staff solicited **input and consensus** from leadership and community stakeholders to develop a final list of 50 or fewer organizations.

Agencies were asked to have **two staff members** respond who have knowledge of collaboration:

- With other agencies at the agency level
- With other agencies at the service provision (e.g., child/family) level
Collaboration Survey: Methods

Collaboration survey administered at the regional level twice

Social network analysis (SNA) will depict how the collaborative network changes over time

Gephi was used to conduct the analysis (Bastian, Heymann, & Jacomy, 2009)

Content analysis performed on qualitative data to provide some context to further understanding of the SNA results
Collaboration Survey: Methods

Collaboration survey will be administered at the regional level twice:

– This is a summary of the baseline administration in one Region.

Social network analysis (SNA) will depict how the collaborative network changes over time.

– Gephi was used to conduct the analysis.

Content analysis performed on qualitative data to provide some context to further understanding of the SNA results.
## Levels of Collaboration Scale

<table>
<thead>
<tr>
<th>Networking</th>
<th>Cooperation</th>
<th>Coordination</th>
<th>Coalition</th>
<th>Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aware of organization</td>
<td>Provide information to each other</td>
<td>Share information and resources</td>
<td>Share ideas</td>
<td>Belong to same provider system</td>
</tr>
<tr>
<td>Loosely defined roles</td>
<td>Somewhat defined roles</td>
<td>Defined roles</td>
<td>Share resources</td>
<td>Frequent communication characterized by mutual trust</td>
</tr>
<tr>
<td>Little Communication</td>
<td>Formal communication</td>
<td>Frequent communication</td>
<td>Frequent &amp; prioritized communication</td>
<td>Consensus is reached on all decisions</td>
</tr>
<tr>
<td>All decisions made independently</td>
<td>All decisions made independently</td>
<td>Some shared decision making</td>
<td>Advise each other on decision making</td>
<td></td>
</tr>
</tbody>
</table>
Geodesic Distance or “Degrees of Separation”

ONE DEGREE between “A” and “B”

TWO DEGREES between “A” and “B”

THREE DEGREES between “A” and “B”
Geodesic Distance

Geodesic Distance can range from 0 to 1.0

The Geodesic Distance at the time this survey was administered was 0.488.

This will be measured again at the second administration in the Spring of 2018 and we will be able to determine if there was a statistically significant change in this metric over time.
Reciprocity, Outreach and Recognition

Agency A

Reciprocity

Agency B

Outreach

Agency A

Agency B

Recognition

Agency A
Frequency of Relationship Type out of All Possible Relationships

Outreach Recognition and Reciprocity (N=2,161)

- **Reciprocal**: 7.3%
- **Outreach/Recognition**: 17.5%
Mean Collaboration Rating Given by Agencies Participating in the CT Network of Care

Interaction Scale

Collaboration

Coalition

Coordination

Cooperation

Networking

None

American Job Cntrs
Behavioral Mgmt
BHcare
B & G Club - New Haven
B & G Village
Bridges
Branding Family Resource
Caring Family Solutions
Children’s Community Prgm
Children’s Trust Hamden
Clifford Beers
CIR
Connection
Cornell Scott Hill Health
DCF
DDS
EH Counseling
East Shore District Health
Fair Haven Comm Health
Fair Haven Comm SVCS
Family Citrus SVCS
FAVOR
Griffin Hospital OP
Hamden YSB
Happy Family Clinical Svcs
Integrated Wellness Group
PCRC
Milford Human Services
NH Alliance
New Haven YSB
NAPI
North Haven Comm Svcs & Rec
Project More
R Kids
Rural Wellness
Solar Youth
Survivin’ Da Hood
VNA - South Central
WH Community House
WH Mental Health Clinic
WH Youth & Family Svcs
Woodbridge Youth Svcs
Woodbridge Youth Svcs
Yale Child Study
Yale Child Study
Yale-NH Hospital
YMCA - Woodruff

Interaction Description

None

Networking

- No interaction at all
- Aware of organization
- Loosely defined roles
- Little communication
- All decisions made independently

Cooperation

- Provide information to each other
- Somewhat defined roles
- Formal communication
- All decisions are made independently

Coordination

- Share information and resources
- Defined roles
- Frequent communication
- Some shared decision making

Coalition

- Share ideas
- Share resources
- Frequent and prioritized communication
- Advised each other on decision making

Collaboration

- Belong to same provider system
- Frequent communication characterized by mutual trust
- Consensus is reached on all decisions
Average Frequency of Sent and Received Referrals Between Agencies Participating in the CT Network of Care

- More than once per week
- Weekly
- Couple of times per month
- Once per month
- Few times a year
- None

![Chart showing frequency of sent and received referrals between agencies](chart.png)

Avg Frequency of Sent Referrals

Avg Frequency of Received Referrals
Number of Agencies Who Want to Collaborate More with each Agency
Using these Data in Connecticut

Using this data agencies can focus efforts to encourage collaboration:
• Enhance collaboration with existing partners;
• Reach out to partners with whom they would like to establish collaborations.

Networks of Care can direct resources & policies to promote activities that can facilitate collaboration:
• Networking opportunities;
• Interagency meetings & trainings;
• Leadership for agencies support activities that enhance collaboration.