The Meaning & Measurement of Collaboration
Across Children’s Behavioral Health & Child Welfare Systems

Jared K. Martin & Brent R. Crandal
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Colleagues
- Andrea L. Hazen, PhD
- Jennifer Rolls Reutz, MHP
- John Landsverk, PhD

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Objectives

1. Better understand current state of the literature
   • Rationale, Conceptual Frameworks, Barriers, & Facilitators

2. Become familiar with measurement approaches
   • Specific Tools, Respondents, & Key Indicators

3. Explore next steps for future policies & practices
   • Group Discussion
Need for CSC

• Nearly 1 child or adolescent of every 2 in child welfare meets criteria for a mental health disorder (Bronsard et al., 2016).
  – 1 in 5 youth in the general population (ages 9-17; U.S. DHHS, 1999)

• Significantly ↑ rates
  – Use
  – Abuse
  – Dependence

• \(5\times\) more likely to receive a drug dependence diagnosis (Pilowsky & Wu, 2006)
Need for CSC

• Low rates of mental health service use among children and youth involved in CW.
  – Poorer access to MH services for youth of color
  – Garcia, Palinkas, Snowden, & Landsverk, 2013; Glisson & Green, 2006; Burns et al., 2004; Hurlburt et al., 2004.

• Only half of all children received care consistent with any 1 national standard, and less than 1/10th (9.8%) received care consistent with all standards.
  – Raghavan et al., 2009
When Systems Collaborate

For Clients/Consumers:
- Increased BH utilization
- Reduced symptomology
- Greater out-of-home care placement stability
- Decreased differences in service use between white & African American children

For Organizations:
- Greater agency goal attainment
- Sustained resources linkages
- More effective and higher quality services

Cooper, Evans, & Pybis, 2016; Wells & Chuang, 2012; Chuang & Lucio, 2011; Bai, Wells, & Hillmeier, 2009; Green, Rockhill, & Burns, 2008; Hurlburt et al., 2004; Rivard & Morrissey, 2003
Contradictory Findings

Systematic Review:

– Collaboration perceived by some professionals as having a negative impact on service delivery

– Six studies found at least one negative association between collaboration and outcomes

Cooper, Evans, & Pybis, 2016
Why Contradictory Findings?

Glisson and Hemmelgarn, 1998:
- Increased diffusion of responsibility

Wells, 2006:
- Overall lack of resources
- Use of ineffective interventions to begin with
- Methodological challenges with measuring CSC

Bai, Wells and Hillemeier, 2009:
- Possibility of subgroups within the CW population
- MH treatments were not effective
CSC Conceptualizations

1) **Mental Health Services Utilization Model**
   - Aday & Andersen, 1975; Bai, Wells, & Hillemeiera, 2007

2) **Interagency Collaborative Team Model**
   - Hurlburt et al., 2014

3) **Network-Episode Model** (Pescosolido, 1992)
   - Children’s Network-Episode Model
     - Costello, Pescosolido, Angold, & Burns, 1998
   - Gateway Provider Model
     - Stiffman, Pescosolido, & Cabassa, 2004

4) **“Ecological Model”**
   - Garcia, Circo, DeNard, & Hernandez, 2015
Mental Health Services Utilization Model
(Bai, Wells, & Hillemeiera, 2007)

Agency level factors:
- Intensity of IORs
- Medical care resources

Child level factors
- Predisposing characteristics (age, gender, race/ethnicity, family risks, maltreatment types, receipt of child welfare services, nature of maltreatment report, placement settings)
- Enabling resources (Health insurance and geographic location)
- Need (Severity)

Uses of mental health specialty services

Psychological functioning (CBCL)
Interagency Collaborative Team (ICT) Model (Hurlburt et al., 2014)
Network-Episode Model
(Pescosolido, 1992)
The Gateway Provider Model
(Stiffman, Pescosolido, & Cabassa, 2004)

- Enabling
  - Availability
  - Accessibility
  - Affordability
  - Acceptability

- Need
  - Presence of disorder
  - Severity of disorder
  - Comorbid conditions
  - Impairment

- Predisposing
  - Demographics
  - Risk & protective factors

- Structural Characteristics
  - Organization
  - Management
  - Psychological Climate
  - Burden

Gateway Provider Perceptions and Knowledge
(Of service resources, mental illness, parental attitudes)

Decision to provide services

Specialty and Nonspecialty Mental Health Service Provision
“Ecological Model”
(Garcia, Circo, Denard, & Hernandez, 2015)

MACRO: EXTERNAL CONTEXT
- Dissemination of effective practice strategies
- Proximity to appropriate services
- Development of effective practice strategies
- Funding

MESO: TRANSITIONS
- Awareness of effective practice strategies
- Job support
  - Implementation of effective training strategies
  - Interagency collaboration

MICRO: ENGAGEMENT
- Implementation of effective practice strategies
- Cultural Competency
- Stigma
- Insider Work

Service Delivery
CSC Facilitators

- enhanced communication\(^1,2\)
- agreement at the outset on the objective\(^1,3\)
- clear roles for each agency involved\(^4\)
- conflict resolution skills\(^4,5\)
- institutionalized mechanisms for both planning and problem solving\(^2\)
- history of prior collaboration\(^2\)
- staying focused on the vision/perseverance to see things through\(^4\)
- Addressing basic differences to create a shared value system (such as concepts, areas of assessment, perspectives on questions, methods, skills, language, and culture)\(^1,2\)
- involvement of decision makers or liaisons with access to decision makers\(^1,2\)
- relationship building and interpersonal skills\(^1,2\)
- training and cross-training\(^2\)

\(^1\)= children’s mental health & various other providers  
\(^2\)=substance abuse & child welfare  
\(^3\)=maternal-child residential substance abuse treatment & other providers  
\(^4\)=child welfare and mental health  
\(^5\)=variety of human services agencies

Herlihy, 2016; Raeymaeckers, 2016; Iachini et al., 2015; Aarons et al., 2014; Lee et al., 2012; Drabble, 2011; Darlington, Feeney, & Rixon, 2005
CSC Barriers

• Individual
  – differences in values
  – lack of consensus
  – negative/change resistant staff
  – competing responsibilities
  – poor communication
  – divergent goals
  – a preoccupation with the design or form of the interagency team rather than its function
  – loss of autonomy
  – personality clashes
  – competition

• Environment
  – lack of resources (funding, sustainability)
  – ambiguous jurisdictions
  – over-dependence on one agency for direction
  – lack of transparency
  – external regulators
  – lack of designated monitors/evaluators/review processes
  – lack of specific accountability
  – Parochial/siloed interests
  – a history of competition between agencies.

Herlihy (2016)
“Whatever exists at all exists in some amount. To know it thoroughly involves knowing its quantity as well as its quality.”

CSC & Measurement

Cross-System Collaboration
CSC & Measurement

Trust
Communication
Joint Funding
Integrated Service Pathways

Cross-System Collaboration
CSC & Measurement

Cross-System Collaboration
CSC Measurement

– Structured Literature Review

  • Scholarly Work on CSC
  • Include CW and BH/MH Systems

  **67 Articles**

  • Peer-Reviewed
  • Data Analysis
    – not conceptual, qualitative, commentary, etc.
  • Measurement of CSC

**8 Novel Measurement Approaches**
# CSC Measurement

## Key Terms & Constructs

- Strength of Ties
- Linkages
- Interorganizational Relationships
- Interagency Collaboration

## Respondents

- Leadership and/or Providers
  - Key Informant Interviews
  - Self Report Surveys
  - Mixed Method Surveys

## Approaches

- Binary Key Indicators of Linkages
- Administrative Ties and Collaborative Practices
- Service Integration and Cross-Training
- Social Network Analysis
- Frequency of Referrals and Information Exchange

*Psychometric characteristics either not report or not applicable for each of the measurement approaches identified*
## CSC Outcomes

- Service Accessibility
- Service Utilization
- Service Effectiveness
  - Symptoms (MH)
  - Placement Stability (CW)
- Collaboration
  - Perceptions of Collaboration
  - Increased & Stronger Ties
  - Collaborative Goal Attainment
  - Policy & Program Development
  - Resource Linkages
  - Integration of Services
<table>
<thead>
<tr>
<th>Citation</th>
<th>Targeted Construct</th>
<th>Respondent</th>
<th>Approach</th>
<th>CSC Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darlington, Feeney, &amp; Rixon</td>
<td>3 Dimensions of Collaboration: Extent; Impact of Uncertainty; Positive Experience and Difficulty</td>
<td>CPS and MH Workers</td>
<td>Self-Administered Survey (Qual/Quan)</td>
<td>Perceptions of Interagency Collaboration, Improved Client Outcomes</td>
</tr>
<tr>
<td>Friedman et al. (2007)</td>
<td>Interagency Collaboration Scale (IAC; Adapted)</td>
<td>Staff from multiple young-child-serving agencies</td>
<td>Social Network Analysis: density, closeness of relationships, points of entry to services</td>
<td>Reduce fragmentation of efforts &amp; deliver integrated services</td>
</tr>
<tr>
<td>Rivard et al. (1999)</td>
<td>Interagency Collaboration</td>
<td>Key informants from multiple child-serving agencies</td>
<td>Frequency of referral and information exchange between systems</td>
<td>Increased and stronger ties between agencies</td>
</tr>
<tr>
<td>Rivard &amp; Morrissey (2003)</td>
<td>Interagency Collaboration</td>
<td>Key informant from agencies (typically program sups/direct)</td>
<td>Frequency of referral and information exchange between systems</td>
<td>Collaborative goal attainment; policy and program development; maintained resource linkages</td>
</tr>
</tbody>
</table>
## CSC Measurement

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<tr>
<td>Hurlburt et al. (2004)</td>
<td>Strength of ties between CW and MH agencies (linkages)</td>
<td>Key Informant Interview Modules (NSCAW Data)</td>
<td>Count of 26 indicators of linkages between CW and MH agencies</td>
<td>MH Service Use for CW-Involved Children &amp; Youth</td>
</tr>
<tr>
<td>Bai, Wells, &amp; Hillemeier (2007)</td>
<td>Intensity of Interorganizational Relationships (IORS)</td>
<td>Not Reported (NSCAW Data)</td>
<td>Linkages between CW agencies and MH providers</td>
<td>MH service use and MH status improvement for CW-Involved Children &amp; Youth</td>
</tr>
<tr>
<td>Chuang &amp; Lucio (2011)</td>
<td>CW Collaboration with MH Service Providers</td>
<td>Key Informant Interview with CW agency staff</td>
<td>10 binary indicators of administrative ties and person-centered collaborative practices</td>
<td>Receipt of MH Services</td>
</tr>
<tr>
<td>Wells &amp; Chuang (2012)</td>
<td>CW agency ties with behavioral health care providers</td>
<td>CW agency director report</td>
<td>Service integration within agency &amp; cross-training</td>
<td>Improved placement stability for adolescents</td>
</tr>
</tbody>
</table>

*Psychometric characteristics not report or not applicable for all measurement approaches*
CASAT Approach: Measurement

• 5-point Likert scale

To the best of my knowledge, the child welfare and mental health staff in my community:

1. Have a history of working well together
2. Have a history of trusting each other
3. Have a clear sense of their roles and responsibilities
4. Communicate openly with one another
5. Regularly share information (with proper consents) on treatment and case plans
6. Regularly attend joint meetings to determine the needs of families
CASAT Approach: Measurement

- Adapted from a tool developed for Project Broadcast by colleagues from North Carolina Department of Health and Human Services
  - Adapted Items from
    - Wilder Collaboration Factors Index
    - System of Care Readiness and Implementation Measurement Scale

- Cooper, Evans, & Pybis 2016 Systematic Review on CSC
  - Most commonly facilitators:
    - good interagency communication
    - joint trainings
    - good understandings across agencies
    - mutual valuing across agencies
    - senior management support
    - protocols on interagency collaboration
    - a named link person
  - Most commonly perceived barriers:
    - inadequate resourcing
    - poor interagency communication
    - lack of valuing across agencies
    - differing perspectives
    - poor understandings across agencies
    - confidentiality issues
<table>
<thead>
<tr>
<th>CASAT CSC Items</th>
<th>Convergent Item/Source</th>
<th>Corresponding Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. History of working well</td>
<td>Similar (not identical) to Wilder Collaboration Factors Index item #1</td>
<td>Agencies in our community have a history of working together</td>
</tr>
<tr>
<td>a. History of trusting</td>
<td>Similar (not identical) to Wilder Collaboration Factors Index item #7</td>
<td>People involved in our collaboration always trust one another.</td>
</tr>
<tr>
<td>a. Clear sense of roles</td>
<td>Essentially identical to Wilder Collaboration Factors Index item #20</td>
<td>People in this collaborative group have a clear sense of their roles and responsibilities.</td>
</tr>
<tr>
<td>a. Communicate Openly</td>
<td>Essentially identical to Wilder Collaboration Factors Index item #26</td>
<td>People in this collaboration communicate openly with one another.</td>
</tr>
<tr>
<td>a. Regularly share info</td>
<td>Similar (not identical) to System of Care Readiness and Implementation Measurement Scale (SOC-RIMS) item #108</td>
<td>There is an agreement to share information across child-serving systems.</td>
</tr>
<tr>
<td>a. Regularly attend joint meetings</td>
<td>No clear direct link in these resources</td>
<td>--</td>
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CASAT Approach: Methodology

- 8 CA Counties
  - N = 494
    - Feb-June 2014
    - Online Survey
      - CSC
      - Organizational Functioning
      - Practices and Attitudes
  - Response Rate: 56.5%
CASAT Approach: Results Summary

• Content Validity
  – Items align with CSC barriers and facilitators from Cooper, Evans, & Pybis 2016 Systematic Review on CSC

• Factorial Validity
  – Principal Components Analysis supports 1-factor solution

• Reliability & Internal Consistency
  – Sig/Moderate Spearman’s Rho Correlations for Each Item
  – Cronbach’s Alpha Very Good ($\alpha = .91$)

• Construct Validity
  – CSC Sum Correlates Significantly/Moderately with all TCU SOF Organizational Climate Subscales
CASAT Approach: Results Summary

• Sum Score Range: 6-30
• Sum Score $M$ (SD)

<table>
<thead>
<tr>
<th></th>
<th>Overall (N=949)</th>
<th>Child Welfare (n=242)</th>
<th>Behavioral Health (n = 252)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>19.71 (4.84)</td>
<td>19.53 (4.91)</td>
<td>19.88 (4.78)</td>
</tr>
</tbody>
</table>

• Nonparametric Tests
  – CW and BH means not significantly different ($p > .05$)
  – CW admin and service provider means not significantly different ($p > .05$)
  – MH/BH admin and service provider means significantly different ($p < .001$)
    • BH Admin Means significantly higher
Results: Construct Validity

- TCU Survey of Organizational Functioning

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<tbody>
<tr>
<td>Cross-System Collaboration Sum Scale (1)</td>
<td>-</td>
<td>.44**</td>
<td>.36**</td>
<td>.29**</td>
<td>.50**</td>
<td>.40**</td>
<td>-.34**</td>
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<tr>
<td>SOF Org Climate Mission (2)</td>
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<td>.55**</td>
<td>.57**</td>
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<td>-.54**</td>
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<tr>
<td>SOF Org Climate Cohesion (3)</td>
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<td>.46**</td>
<td>.57**</td>
<td>.50**</td>
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<tr>
<td>SOF Org Climate Autonomy (4)</td>
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<td>.61**</td>
<td>.59**</td>
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<tr>
<td>SOF Org Climate Communication (5)</td>
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<td>.69**</td>
<td>-.59**</td>
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<tr>
<td>SOF Org Climate Change (6)</td>
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<td>-.48**</td>
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<td>SOF Org Climate Stress (7)</td>
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** significant at .001

SOF; Institute of Behavioral Research, Texas Christian University, 2005
Group Discussion

- What should happen when CW & BH systems improve collaboration?
  - The goals we saw in our review
    - MH Services Uptake
    - EBP Scale-Up
    - Equity for Consumers/Reduced Disparities
    - Higher Quality/Integrated Services
    - What else?

- Does collaboration mean different things based on the outcomes you’re trying to reach?
  - i.e., More complicated than simply “collaboration”

- Do CSC stakeholders need to match desired goals/outcomes with CSC conceptualizations or measurement tools?
Group Discussion

• Should CSC in CW & BH differ from collaboration between other systems? If so, how?

• What types of differences would you expect in perceptions of CSC?
  – Who would think it’s higher?
  – Who would think it’s lower?
  – Who has a good vantage point to gauge actual CSC?

• How can measurement help improve CW & BH CSC efforts?
What’s the Take Home?

- **Rational**
  - Many collaboration benefits for service consumers and organizations, however, some pitfalls as well.
  - Sparse examination of BH system’s impact on CW outcomes

- **Conceptualization**
  - Carefully consider the goal of CSC and select a conceptual model that fits the desired outcome.

- **Measurement Approaches**
  - Existing CSC measurement approaches, but very few with known measurement performance

- **CASAT Measurement**
  - CASAT approach to measuring CSC seems to have performed well
  - Strong relationship between CSC collaboration & organization climate
  - Differing views of CSC depending on who you ask
Thank You!

Contact Info:

Jared Martin
jmartin@rchsd.org

Brent Crandal
bcrandal@rchsd.org
@drcrandal
References


References (cont.)


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