The Importance of Wraparound Fidelity

- Growing recognition of the importance of assessing wraparound fidelity
- The Wraparound Fidelity Assessment System examines adherence as shown in:
  - Wraparound practice (WFI)
  - Documentation (under development)
  - Observation of team meetings (WOF)
- WFI is the most widely used measure of fidelity
- WFI has, at times, related to outcomes

The Utility of Participants’ Perceptions of CFTs

- Wraparound team meeting processes have important implications for how the team develops and implements plans
- Observations are useful indicators of team process, but are expensive and do not capture experiences of the participants
- The Participant Rating Form (PRF) has been developed to record participants’ views of the team
- Team members’ perceptions relate to child outcomes, and should be examined more often

The Participant Rating Form

- Assesses the perceptions of 5 different types of participants on adherence to wraparound principles at the team meeting:
  - Youth
  - Caregiver/Parent
  - Supportive Person (informal support)
  - Service Provider
  - Facilitator
- Administered at end of Child and Family Team (CFT) meeting

- 35 total items; 5 forms
  - Parent/caregiver
  - Youth
  - Facilitator/coach
- Skewed high; but 25/35 have scores ranging from 1-4
  - Low scores:
    - I had a say in who came to the meeting. Mean = 3.18
    - The plan involves supportive people besides child professionals (such as a friend, neighbor, coach, aunt, minister). Mean = 3.26
- High scores:
  - Participants worked together as a team. Mean =3.86
  - The meeting was useful. Mean = 3.86
The Participant Rating Form

• Two factors have been identified:
   Team Cohesion - 6 items, reflecting, for example:
     Members listen
     Work together as a team
     Sensitive to family culture
     Members understand family
   Team Functioning - 10 items, reflecting, for example:
     Focus on child and family strengths
     Focus on family needs
     Follow up on plan
     Address barriers to plan
     Plan for crisis
   Participants - 1 item
     Everyone who needed to be there was present

The Present Study

• Involves data from 60 families with
   Team completing at least 1 PRF
   Intake and 6-month follow-up interviews in National Evaluation
• PRF data include, on average for each meeting:
   4.44 individual respondents
   2.28 professionals
   1.14 caregivers
   0.67 youth
   0.23 informal supports
• Data divided into 3 groups:
   Parent/caregiver
   Youth
   Other (professionals and informal supports)

Group Differences in Ratings

• Parents and Others rated team meetings more highly than youth on Cohesion, Functioning, and Participants
• When team members identified someone who needed to be at the meeting who was not there:
   73% of teams had Professionals identify someone
   40% of teams had Youth identify someone
   22% of teams had Parents identify someone
• But when we examine how often individual participants identified a specific person who should be at the meeting:
   25% of youth identified a specific individual
   17.4% of professionals identified someone
   6.5% of parents/caregivers identified someone
• Youth were most likely to identify informal supports as those needing to be there (33.3%); they rarely identified professionals (1.6%)
• Caregivers wanted professionals (43.5%) more than informal supports (21.7%)
• Professionals wanted professionals (55%) more than informal supports (20.7%)

Relationship of Team Functioning to Outcomes

• Average Ratings by All Team Members:
   Teams with higher overall levels of Team Cohesion:
     Had greater gains on CBCL scores
       Internalizing (β = -.214, p = .04); and
       Externalizing (β = -.226, p = .04)
     Had higher caregiver ratings:
       Satisfaction with Services (r = .37, p = .02)
       Improvement in Youth Functioning (r = .43, p = .01)

Group Differences in Ratings

• Results from the PRF relate to observers’ ratings of team functioning (Cook et al., 2007)
• Findings are comparable to those yielded by other measures of fidelity (Bruns, Suter, & Leverentz-Brady, 2003; Davis & Dollard, 2004; Epstein et al., 2003; Koroloff & Schutte, 2003)
• Data have been collected from:
   > 9000 participants
   > 1700 team meetings
   > 350 teams
### Relationship of Team Functioning to Outcomes: Ratings by Youth

- When Youth rated *Team Functioning* higher:
  - Youth reported greater gains in their *Strengths*  
    - BERS Strength Quotients ($\beta = .317; p = .04$)
  - Contrary to expectations

- When Youth indicated they had “all the Participants needed” at the meeting:
  - Youth showed higher levels of *Internalizing Problems* ($\beta = .215; p = .05$)

### Relationship of Team Functioning to Outcomes: Ratings by Caregivers

- Higher Caregiver Ratings of *Team Cohesion* Related to
  - Higher caregiver ratings of:
    - Satisfaction with Services ($r = .34, p = .04$)
    - Improvement in Youth Functioning ($r = .42, p = .01$)

- Higher Caregiver Ratings of *Team Functioning* Related to
  - Higher caregiver ratings of:
    - Satisfaction with Services ($r = .37, p = .02$)
    - Improvement in Youth Functioning ($r = .49, p = .01$)

- Higher youth ratings of:
  - Improvement in Youth Functioning ($r = .48, p = .01$)
  - Improvements in *Externalizing Problems* ($\beta = .255; p = .02$)

### Summary of Outcomes

- Higher Professionals’ Ratings of *Team Cohesion* Related to
  - Higher caregiver ratings of:
    - Satisfaction with Services ($r = .36, p = .03$)
    - Improvement in Youth Functioning ($r = .35, p = .03$)
  - Improvements on CBCL scores
  - Social Problems ($\beta = -.207, p = .02$); and
  - Internalizing Problems ($\beta = -.225, p = .03$)

- When Professionals indicated they had “all the Participants needed”, there was
  - Deterioration in Social Problems ($\beta = .233; p = .02$)
  - Decline in Caregiver-reported *Youth Strengths* ($\beta = -.243; p = .02$)

### Summary of Outcomes

- Ratings of “having all Participants needed”
  - By Youth – Predicts increases in internalizing behaviors (as reported by caregiver)
  - By Others - Predicts decreases in *Youth strengths*, increases in social problems, increases in global impairment (as reported by caregiver), and lower levels of caregiver-reported improvement
  - These results are contrary to expectations

### Implications

- Not surprising that more cohesive teams predict improvements
  - Working together, listening to one another, respecting culture, etc. – all are likely to contribute to teams being able to come together and address needs

- Similarly, no surprise that better team functioning is related to youth functional improvement, caregiver ratings of satisfaction and youth improvement in adjustment, youth-rated improvements, and youth rated strengths
  - If teams focus on strengths, follow through, etc., we should have better outcomes.
**Implications**

- Surprising findings center on the rating of Participants – whether “team members who needed to be there” were, in fact, at the meeting

**Implications**

- When youth indicated no need for anyone else (avg. of 4.4 people per meeting) to be there, they showed more internalizing behavior problems over time.
  - Why? Perhaps those with internalizing symptoms are less likely to want to engage with people more generally?
- When “others” (mostly professionals) indicated no need for anyone else to be there, youth evidenced declines in strengths, increases in social problems, and increases in global impairment
  - Put another way, when “others” indicate a need for others to be on the team, youth do better.

**Implications: Summary**

- Why does the report that team needs more participants relate to poorer outcomes?
  - Does the desire for more team members, when there are so few informal supports on small teams, indicate a greater tendency to support a wraparound approach?
  - Could it be a recognition that these youth have pronounced needs and, if all necessary “players” are not at the table, the team will be less able to address them?
  - Is this indirectly suggesting that professionals (including the team facilitator) who “buy” the model have better outcomes?

**Implications: Summary**

- What happens at the team meeting level is important
  - Needs to be a greater focus of practice and research
  - Training, supervision, feedback, coaching, and other strategies should be studied to assess what improves meetings
  - Even with measurement limitations (variability in amount of data collected, restricted range of responses) and a relatively small N, this work identified an important pattern of results, using outcomes measures “distant” from the predictors

**Thanks**

Bianca Hemphill – bthemphi@uncc.edu
Jim Cook – jcook@uncc.edu
Ryan Kilmer – rpkilmer@uncc.edu
Most prior studies of wraparound examine youth outcomes at a single follow-up point. Benefits of examining multiple points of follow-up:

- Assessing change over longer periods of time
- Better capturing differences in individual patterns of change
- Ability to examine nonlinear effects

Use of multi-level modeling can address challenges in using “real-world” longitudinal data:

- Missing data
- Nested data
- Differences in rates of change (slopes)
- Captures nonlinear effects

This paper builds on the Hemphill et al. findings, using multi-level models to:

- Expand analyses to a larger sample; addressing problems with missing data
- Examine differences in rates of change
- Examine linear and non-linear effects

Questions

- Do outcomes change over 18 months?
- Do greater Cohesion, Functioning & Participation predict linear change over 18 months?
- Do CFT processes relate to non-linear change, for example:
  - Greater initial than long-term improvement
  - Change, but then “relapse”

Data were from 126 families with:

- At least one time point of Participant Rating Forms (PRFs)
- Intake and any follow-up data from the National Evaluation
- A small minority of families were also included with initial but no follow-up data

Four types of reporters:

- Parent/caregiver
- Youth
- CFT facilitators
- Other service providers

Aggregate (“Total”) scores were also examined
Analyses

- Outcomes:
  - CBCL Internalizing, Externalizing, & Social Problems
  - BERS Total Strengths
- Separate multi-level models (MLMs) estimated for each PRF indicator, outcome, and reporter type
- Linear and nonlinear effects included
- Predictor outcome relationships modeled as cross level interaction terms
  - Predictor x time & predictor x time x time

Results

- Unconditional models showed substantial variability within as well as between youth on all outcome indicators
  - Level 1 variance: between 51.87% (externalizing) and 61.47% (internalizing)
  - All outcome indicators also showed both significant linear and quadratic change

Conditional Models – Cohesion & Functioning

- PRF Cohesion and Team Functioning scores predicted only non-linear change
- Total cohesion predicted non-linear change in externalizing problems
- Caregiver reports of functioning predicted non-linear externalizing problems and strengths
- What was the nature of the non-linear effects?

Total Cohesion & Externalizing Symptoms

- High Total Cohesion
- Low Total Cohesion

Caregiver Rated Team Functioning & Externalizing Symptoms

- High Functioning - Caregiver
- Low Functioning - Caregiver

Caregiver Rated Team Functioning & Youth Strengths

- High Functioning - Caregiver
- Low Functioning - Caregiver
Conditional Models – Cohesion & Functioning

- In sum:
  - Greater team cohesion predicted a “relapse” pattern of change for externalizing symptoms and strengths
    - i.e., greater initial improvement was followed by greater later deterioration
  - Though youth did not return to baseline levels, this meant that overall (i.e., linear) change was not significant
  - Greater caregiver-rated team functioning predicted similar patterns for externalizing symptoms and strengths

Conditional Models – Participation

- Echoing findings from Hemphill et al., participation predicted:
  - Less improvement of externalizing symptoms (total participation)
  - For facilitator and service provider-rated participation, less improvement in social problems
  - Non-linear effects were non-significant

Total Participation & Externalizing Symptoms

Facilitator-Rated Participation & Social Problems

Discussion – Cohesion & Team Functioning

- Unlike in Hemphill et al., cohesion and functioning were NOT related to overall improvement
- However, non-linear patterns of prediction still suggest that better teams produce initial gains
- If only non-linear effects had been tested, we would have missed this
- Possible explanations:
  - “Mobilization of hope”, but insufficient follow-through with adequate formal and informal supports
  - Maturation may be associated with deterioration (e.g., because of increased likelihood of substance abuse)

Discussion – Participation

- As in Hemphill et al., higher ratings on team participation were associated with poorer prognosis
- Also as in Hemphill, professionals' reports in particular were associated with less improvement
- The fact that these ratings predicted poorer prognoses over the entire 1.5 year follow-up period is especially troubling
Limitations & Future Research

- Small sample – in larger sample may want to test more complex models
- As in Hemphill et al., different findings across reporters are hard to interpret
- In addition to outcomes, *CFT processes* may change over time
  - Is change in processes related to change in outcomes?
  - Stronger inferences about the relationships could be made by relating change to change
- Are better CFT processes related to increased or more suitable services?

Summary & Conclusions

- CFT processes matter
- More cohesive and better functioning teams are related to more youth improvement initially
- However, initial improvements diminish over time
  - Reasons for a lack of more sustained influence need to be explored
- Reports of adequate participation continue to predict less improvement at 1.5 years
  - Is less seeking of team members – particularly informal supports – an enduring trait of less effective teams?

Contact Information

Mason Haber – mhaber@uncc.edu

Jim Cook – jcook@uncc.edu

Ryan Kilmer – rpkilmer@uncc.edu

Bianca Hemphill – bthemphi@uncc.edu