Staying the Course: Correlates and Effects of Therapist Adherence to the Multisystemic Therapy Model

Presented at the 17th Annual Systems of Care Conference
March 2, 2004                Tampa, Florida

Youth Villages

Youth Villages’ History

- Created in 1986 with the merger of Dogwood Village and Memphis Boys Town
- Adopted Multisystemic Therapy as the primary treatment model for in-home services in 1994
- Currently providing Intercept to over 650 children in five states

www.youthvillages.org

Youth Villages’...

Services include:

- Intensive in-home counseling
- Residential treatment
- Intensive residential treatment
- Therapeutic foster care
- An emergency shelter
- Group homes
- Adoption services
- Family based alternatives for children with developmental disabilities
- Specialized crisis services

www.youthvillages.org

Therapist Adherence

- Caregiver reports of therapist adherence to MST model linked to both intermediary (family functioning, parental supervision, etc.) and outcome (youth arrest, out-of-home placement) variables in several studies1-4.
- Report on Washington State’s implementation of other “research-based” programs indicated that poorly delivered programs cost more and actually had detrimental effects on youth5.
- Recent evidence from MST Transportability Study points to the importance of therapist adherence in achieving good outcomes for children and families6.

See Reference List in Handout.

The Prevention Project

- Funded through LeBonheur Health Systems Foundation
- Purpose – determine efficacy and cost effectiveness of providing MST to children at risk of out-of-home placement in state or juvenile justice custody
- 240 children randomized to two groups – MST Group and Best Practices Group
- Referrals from juvenile justice system, schools, Community Service Agency (affiliated with the state child welfare agency), and self-referred

See Reference List in Handout.
The Prevention Project - Data

- Intake and Six Month – information gathered in face-to-face interviews with family by research staff (Six Month Response Rate – 94.6%)
- Included data on child and family demographic characteristics, family income and education level, previous history of mental health issues/substance abuse/violence/legal trouble in the family and child
- Standardized assessments included Child Behavior Check List (CBCL)5, Youth Self Report (YSR)5, Child and Family Assessment Scale (CAFAS)6, Self Report Delinquency Scale (SRDS)7, and Brief Symptom Inventory (BSI)8
- Primary data gathered from Juvenile Court at twelve months including custody, charges, disposition of charges, and placement of youth in juvenile justice facility

See Reference List in Handout.

Therapist Adherence Measure (TAM)

- For participants receiving MST services, a phone interview was conducted by research staff with caregivers two weeks after initiation of treatment and monthly thereafter until discharge from treatment
- Response rates:
  - All clients who received MST services had at least one TAM measure
  - 78.8% of scheduled TAM measures were completed
- Twenty-six items rated aspects of the therapist’s activities with the family on a five-point Likert scale
- Original TAM contained six factors covering different aspects of adherence to the model
- Recent work by Schoenwald, et al distilled the TAM to a single-factor score using 15 items1

See Reference List in Handout.

Prevention Project – MST Group

Demographics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Race/Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>49%</td>
</tr>
<tr>
<td>Female</td>
<td>51%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>84%</td>
</tr>
<tr>
<td>African American</td>
<td>14%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
</tbody>
</table>

Mean Age at Admission – 12.87 Years, SD = 2.48, Range = 9.25 to 18.25 Years

Prevention Project – MST Group

Referral Source

- Community Service Agency: 24%
- Juvenile Court: 41%
- School: 18%
- Other: 16%
- Self-Refered: 7%

Findings – Correlates of Adherence

- Therapist adherence was higher for African American youth than for Caucasian participants – t(119) = 2.15, p = .034
- Families with income less than $20,000 reported greater adherence – t(113) = 1.98, p = .049
- Clients referred from Juvenile Court and CSA reported higher adherence than referrals from other sources – F(2,117) = 4.77, p = .004
- Clients with oppositional behavior as primary referral problem reported lower levels of adherence than those referred for other reasons – t(116) = 1.72, p = .089

Findings – Correlates of Adherence (cont.)

- Families with prior DCS contact reported higher levels of adherence – t(119) = 2.84, p = .006
- Higher adherence was reported by families of children whose mother had a history of substance abuse – t(119) = 1.6, p = .026
- Lower levels of adherence were reported by families whose child had run away at least one time in the past – t(119) = 1.8, p = .081
- Higher levels of adherence were reported by families of children whose friends had a history of alcohol and drug use – t(98) = 1.99, p = .050
- Families of children with unsatisfactory conduct grades reported higher therapist adherence – t(83.9) = 2.71, p = .009
Findings – Correlates of Adherence (cont.)

Relationship between therapist adherence level and the match between client and therapist demographic characteristics was examined.

No differences were found between clients who were the same gender as their therapist and those who were not – t (116) = .408, p = .684

No differences were found between clients who were and were not matched on race/ethnicity – t (116) = .082, p = .935

Findings – Effects of Adherence

- Children whose therapists were highly adherent to MST showed significant improvement in the following CBCL Measures:
  - School competence – F (1, 67) = 4.60, p = .03
  - Delinquency – F (1, 72) = 6.36, p = .012
  - Total Problems – F (1, 72) = 2.94, p = .091

- Significant improvement on the YSR was associated with higher levels of adherence in the following areas:
  - Aggressive Behavior – F (1, 62) = 46.26, p = .015
  - Externalizing Problems – F (1, 62) = 5.73, p = .02
  - Activities Competence – F (1, 62) = 2.83, p = .097
  - School Competence – F (1, 60) = 3.62, p = .066

Findings – Effects of Adherence (cont.)

- Children who had a highly-adherent therapist demonstrated greater improvement in Total Score on the CAFAS – F (1, 68) = 2.83, p = .033
- On the BSI, higher levels of therapist adherence were associated with marginally greater level of improvement in phobic anxiety – F (1, 71) = 3.12, p = .082
- Changes in SRDS scores did not differ significantly by therapist adherence level.

Findings – Effects of Adherence (cont.)

Contact with Juvenile Court Between Baseline and 12-Months by Adherence Level.

<table>
<thead>
<tr>
<th>Contact with Juvenile Court</th>
<th>Group</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Adherence</td>
<td>16</td>
<td>23</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>High Adherence</td>
<td>14</td>
<td>25</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>48</td>
<td>78</td>
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</tr>
</tbody>
</table>

χ² (1) = 217; p = .642

Out-of-Home Placement Between Baseline and 12-Months by Adherence Level.

<table>
<thead>
<tr>
<th>Placed outside of the home</th>
<th>Group</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Low Adherence</td>
<td>12</td>
<td>27</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>High Adherence</td>
<td>9</td>
<td>30</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>57</td>
<td>78</td>
<td></td>
</tr>
</tbody>
</table>

χ² (1) = .56; p = .444

Change in Custody Between Baseline and 12-Months by Adherence Level.

<table>
<thead>
<tr>
<th>Change in custody</th>
<th>Group</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Adherence</td>
<td>3</td>
<td>36</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>High Adherence</td>
<td>0</td>
<td>39</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>75</td>
<td>78</td>
<td></td>
</tr>
</tbody>
</table>

χ² = .240 (Based on Fisher's Exact Test).
Discussion

- Evidence provided that some client and family characteristics, including demographics, presenting issues, school functioning, and family’s social history may influence the level of adherence to MST principles demonstrated by a therapist.
- No evidence found that match between client and therapist on gender or race/ethnicity affects level of adherence to the treatment model.
- Consistent with other studies, improvement in functioning as demonstrated by standardized measures significantly differed by level of therapist adherence, although not on all measures.
- Level of therapist adherence was not significantly associated with juvenile court outcomes.

Next Steps

- Explore the relationship between level of therapist adherence and child/family characteristics further:
  - Does level of adherence vary between families for the same therapist?
  - Does therapist level of education and/or experience affect level of adherence?
  - Is there an interaction between therapist characteristics and child/family characteristics that influences the level of adherence?
- Continue to examine the effects of level of adherence on outcome measures:
  - Do the differences seen at six months also appear at 12 and 24 months?
  - Are there school outcome measures which vary by therapist adherence level?

For Further Information:

Tim Goldsmith  
Director of Clinical Services  
5515 Shelby Oaks Drive  
Memphis, TN 38134  
901-252-7600  
tim.goldsmith@youthvillages.org

Sarah Hurley  
Research Manager  
5515 Shelby Oaks Drive  
Memphis, TN 38134  
901-252-7678  
sarah.hurley@youthvillages.org

Mark W. Vander Weg, Ph.D.  
Research Assistant Professor  
University of Memphis Center for Community Health  
5050 Poplar Avenue, Suite 1800  
Memphis, TN 38157  
Phone: 901-678-1704  
mvandweg@memphis.edu