Multisystemic Therapy (MST) Overview

Presented by MST Services

Revised - 01/18/12
What is “MST”? 

- Community-based, family-driven treatment for antisocial/delinquent behavior in youth 
- Focus is on “Empowering” caregivers (parents) to solve current and future problems 
- MST “client” is the entire ecology of the youth - family, peers, school, neighborhood 
- Highly structured clinical supervision and quality assurance processes
MST Research and Dissemination

• Family Services Research Center (FSRC) at the Medical University of South Carolina (MUSC)
• MST Services
• MST Institute
• Licensed and affiliated organizations:
  - MST Network Partner Organizations
  - Local MST Provider Organizations
MST “Champions” & Advocates

- U.S. Surgeon General: Reports on Mental Health and Youth Violence
- National Institutes on Health (NIH)
- U.S. Department of Justice - OJJDP
- National Institute on Drug Abuse (NIDA), Center for Substance Abuse Treatment (CSAT), and Center for Substance Abuse Prevention (CSAP)
- Washington State Institute for Public Policy (WSIPP)
- “Blueprints for Violence Prevention”
How Does MST Work?

Key Points:

• Theoretical And Research Underpinnings
• MST Theory of Change and Assumptions
• How is MST Implemented?
MST Assumptions

- Children’s behavior is strongly influenced by their families, friends and communities (and vice versa)
- Families and communities are central and essential partners and collaborators in MST treatment
- Caregivers/parents want the best for their children and want them to grow to become productive adults
- Families can live successfully without formal, mandated services
- Change can occur quickly
- Professional treatment providers should be accountable for achieving outcomes
- Science/research provides valuable guidance
Theoretical Underpinnings

Based on social ecological theory of Uri Bronfenbrenner

- Children and adolescents live in a social ecology of interconnected systems that impact their behaviors in direct and indirect ways.

- These influences act in both directions (they are reciprocal and bi-directional).
Social Ecological Model

- Community
- Provider Agency
- School
- Neighborhood
- Peers
- Extended Family
- Caregiver

- Family Members
- CHILD
- Siblings

Multisystemic Therapy (MST)
Overview
Causal Models of Delinquency and Drug Use: Common Findings of 50+ Years of Research

Overview

- Family
- School
- Delinquent Peers
- Prior Delinquent Behavior
- Delinquent Behavior

Neighborhood/Community Context
Delinquency is a Complex Behavior

- Common findings of 50+ years of research: delinquency and drug use are determined by multiple risk factors:
  - Family (low monitoring, high conflict, etc.)
  - Peer group (law-breaking peers, etc.)
  - School (dropout, low achievement, etc.)
  - Community (↓ supports, ↑ transiency, etc.)
  - Individual (low verbal and social skills, etc.)
MST Theory of Change

MST

Improved Family Functioning

Peers

School

Community

Reduced Antisocial Behavior and Improved Functioning

Multisystemic Therapy (MST) Overview
Intervention strategies: MST draws from research-based treatment techniques

- Behavior therapy
- Parent management training
- Cognitive behavior therapy
- Pragmatic family therapies
  - Structural Family Therapy
  - Strategic Family Therapy
- Pharmacological interventions (e.g., for ADHD)
How is MST Implemented? (Cont.)

- Single therapist working intensively with 4 to 6 families at a time
- Team of 2 to 4 therapists plus a supervisor
- 24 hr/ 7 day/ week team availability: on call system
- 3 to 5 months is the typical treatment time (4 months on average across cases)
- Work is done in the community, home, school, neighborhood: removes barriers to service access
How is MST Implemented? (Cont.)

- MST staff deliver all treatment - typically no or few services are brokered/referred outside the MST team
- Never-ending focus on engagement and alignment with primary caregiver and other key stakeholders (e.g. probation, courts, children and family services, etc.)
- MST has strong track record of client retention and satisfaction with MST
- MST staff must be able to have a “lead” clinical role, ensuring services are individualized to strengths and needs of each youth/family
Quality Assurance and Continuous Quality Improvement in MST

Goal of MST Implementation:
• Obtain positive outcomes for MST youth and their families

QA/QI Process:
• Training and ongoing support (orientation training, boosters, weekly expert consultation, weekly supervision)
• Organizational support for MST programs
• Implementation monitoring (measure adherence and outcomes, work sample reviews)
• Improve MST implementation as needed, using feedback from training, ongoing support, and measurement
MST QA/QI Overview

Input/feedback via internet-based data collection
Training/support, including MST manuals/materials

PIR
Program Implementation Review and other reports

Output to – Organization, Program Stakeholders and MST Coach

Organizational Context

MST Coach
MST Expert/Consultant
MST Supervisor
MST Therapist
Youth/Family

CAM
Consultant Adherence Measure
Output to – MST Coach

SAM
Supervisor Adherence Measure
Output to – MST Expert

TAM
Therapist Adherence Measure
Output to – MST Supervisor and MST Expert
MST Quality Assurance System

Research-based adherence measures:

- TAM - youth criminal charges 36% lower for families with maximum adherence score (1) than for families with minimum adherence score (0)
- SAM - youth criminal charges 53% lower for families with maximum SAMSP score (1) than for families with minimum SAMSP score (0)
- CAM - consultant/MST expert adherence predicts improved therapist adherence and improved youth outcomes
MST Transportability Study:
Relationship between TAM-R and Youth Criminal Outcomes (2.3 year follow-up)

TAM-R Predicting Post-Treatment Criminal Charges

TAM-R Score

Number of Post-Treatment Charges

0 (Min.)

0.1

0.2

0.3

0.4

0.5

0.6

0.7

0.8

0.9

1 (Max.)

0.38 (-1 SD)

0.64 (Mean)

0.92 (+1 SD)
MST Transportability Study: Relationship between SAM and Youth Criminal Outcomes (2.3 year follow-up)

SAM Structure & Process Predicting Post-Treatment Criminal Charges

Number of Post-Treatment Charges

Supervisor SAMSP

0 (Min.)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1 (Max.)

0.66 (-1 SD)
0.76 (Mean)
0.86 (+1 SD)
1 (Max.)
MST’s Research Heritage

Key Points:

• 30+ years of Science
• Consistent Outcomes
• Transportability Study Findings
• Role of Model Adherence
MST: 30+ Years of science

26 published outcome, transportability and benchmarking studies including 20 randomized trials

- 11 with serious juvenile offenders
  - 7 independent studies
- 2 with substance abusing or dependent juvenile offenders
- 3 with juvenile sexual offenders
- 3 with youths presenting serious emotional disturbance
- 2 with maltreating families
- 3 with adolescents with chronic health care conditions
  - Diabetes and obesity
- 2 large-scale transportability (dissemination) studies
Consistent Outcomes

In Comparison with Control Groups, MST:

- Led to higher consumer satisfaction
- Decreased long-term rates of re-arrest 25% to 70%
- 47% to 64% decreases in long-term rates of days in out-of-home placements
- Improved family relations and functioning
- Increased mainstream school attendance and performance
- Decreased adolescent psychiatric symptoms
- Decreased adolescent substance use

But, none of this happens without adherence to MST
14-year and 22-year post-treatment outcomes
MST compared to Individual Treatment, (individuals treated 1983-1986)

14 years post treatment
(n= 165, 94% tracking success)
• 54% fewer arrests
• 59% fewer violent arrests
• 57% fewer days in adult confinement
• 43% fewer days on adult probation

22 years post treatment
(n= 148, 84% tracking success)
• 36% fewer felony arrests
• 75% fewer violent felony arrests
• 33% fewer days in adult confinement
• 38% fewer issues with family instability (divorce, paternity, child support suits)
• 3% fewer financial problems (credit, contract, rent suits)

*Complete research overview: www.mstservices.com/outcomestudies.pdf
Where is MST Being Used?

- Over 34 states in the U.S. and 13 other countries
- Statewide infrastructures in Connecticut, Hawaii, New Mexico, North Carolina, Ohio and Louisiana
- International nationwide infrastructures in Norway and the Netherlands
- Additional international sites: Australia, Belgium, Canada, Denmark, England, Iceland, New Zealand, Northern Ireland, Scotland, Sweden and Switzerland
Questions?

Thank you for your time and attention

www.mstservices.com

www.mstinstitutionue.org
Optional slides for use at the presenter’s discretion
Cost Effectiveness of MST

  - Evaluating “evidence-based” options to reduce the future need for prison beds, save money, and lower crime rates.
  - Estimated net taxpayers benefits for using MST in lieu of placement: $29,302/youth
  - Benefits of $4.07 for every $1.00 invested in MST implementation
Standard MST Referral Criteria (ages 12-17)

Inclusionary Criteria
- Youth at risk for placement due to anti-social or delinquent behaviors, including substance abuse
- Youth involved with the juvenile justice system
- Youth who have committed sexual offenses in conjunction with other anti-social behavior

Exclusionary Criteria
- Youth living independently
- Sex offending in the absence of other anti-social behavior
- Pervasive Developmental Delays
- Actively homicidal, suicidal or psychotic
- Youths whose psychiatric problems are the primary reason leading to referral, or who have severe and serious psychiatric problems
Simpsonville Study: 2.4 Year Follow-up

- **Multisystemic Therapy (MST)**
  - Overview

The graph illustrates the percentage of offenders not re-arrested over time since treatment. The x-axis represents years post-treatment, ranging from 0 to 2.4 years. The y-axis shows the percentage of offenders not re-arrested, ranging from 0% to 100%. Two lines are depicted:

- **MST** line, indicating a significant reduction in re-arrests over time.
- **Usual Services** line, showing a less pronounced decrease in re-arrests compared to MST.

The data suggests that Multisystemic Therapy is more effective in reducing re-arrest rates compared to usual services.
<table>
<thead>
<tr>
<th>At Home</th>
<th>88%</th>
<th>These results are based on a comprehensive review of the 12,353 cases (87% of 14,190 cases referred for treatment) that were closed for clinical reasons (i.e., completed treatment, low engagement, or placed) in current, real-world MST teams.</th>
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<tbody>
<tr>
<td>In School/Working</td>
<td>85%</td>
<td></td>
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<tr>
<td>No Arrests</td>
<td>84%</td>
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MST Analytical Process

- Environment of Alignment and Engagement of Family and Key Participants
- MST Conceptualization of “Fit”
- Re-evaluate
- Prioritize
- Intermediary Goals
- Overarching Goals
- Referral Behavior
- Desired Outcomes of Family and Other Key Participants
- Assessment of Advances & Barriers to Intervention Effectiveness
- Measure
- Do
- Intervention Implementation
- Intervention Development

- MST Conceptualization
- Referral Behavior

- Environment of Alignment
- Desired Outcomes
- Overarching Goals
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How is MST Similar to Other Treatments?

- **Common Characteristics of Family Preservation services:** *(Fraser, 1998)*
  - Services are provided to the family and individuals
  - Target children at risk of out-of-home placement
  - Time-limited, flexibly scheduled
  - Tailored to the needs of family members
  - Services are provided in the context of the family’s values, beliefs and culture.
  - Low caseloads (2-6), 24hr/7day availability
How is MST Different?

• In general, MST differs from other treatments for antisocial behavior in these areas:
  - Research: Proven long-term effectiveness through rigorous scientific evaluations
  - Treatment theory: A clearly defined and empirically grounded treatment theory
  - Implementation: A focus on provider accountability and adherence to the model
  - Focus on long-term outcomes: Empowerment of caregivers to manage future difficulties