Multisystemic Therapy (MST) Overview

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Multisystemic Therapy (MST)

Breaking the cycle of criminal behavior by keeping teens at home, in school and out of trouble
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
Where is MST Being Used?

• Over 30 states in the U.S. and in 12 countries
• Treating more than 23,000 youth and families annually
• Statewide infrastructure in Connecticut, Georgia, Hawaii, New Mexico, Ohio, and South Carolina
• Nationwide program in Norway (20+ teams)
• Other international replications: Australia, Canada, Denmark, Iceland, Northern Ireland, England, Scotland, Sweden, Switzerland, the Netherlands, and New Zealand.
Where did MST Start?
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
Who is MST for?

- Targeted are adolescents between the ages of 12 and 17 years, have serious criminal arrest histories, and are at risk for out-of-home placements or incarceration.
- Adolescents presenting with serious clinical problems like drug abuse, violence, or emotional disturbance.
Families as the Solution

- MST focuses on families as the solution
- Families are full collaborators in treatment planning and delivery with a focus on family members as the long-term change agents
- Giving up on families, or labeling them as “resistant” or “unmotivated” is not an option
- MST has a strong track record of client engagement, retention, and satisfaction
How is MST Implemented?

- 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
- 3 to 5 months is the typical treatment time (4 months on average across cases)
- Work is done in the community: home, school, neighborhood, etc.
How is MST Implemented?
(continued)

- MST staff deliver all treatment - typically no services are brokered/referred outside the MST team
- Never-ending focus on engagement and alignment with the primary caregiver and other key stakeholder (e.g., probation, child welfare, etc.)
- MST staff must be able to have a “lead” role in clinical decision making for each case
- Highly structured weekly clinical supervision and Quality Assurance (QA) processes
Environment of Alignment and Engagement of Family and Key Participants

MST Conceptualization of “Fit”

Intermediary Goals

Prioritize

Assessment of Advances & Barriers to Intervention Effectiveness

Measure

Re-evaluate

Desired Outcomes of Family and Other Key Participants

MST Analytical Process

Overarching Goals

Referral Behavior

Desired Outcomes of Family and Other Key Participants

Measure

Do

Intervention Development

Intervention Implementation

Desired Outcomes of Family and Other Key Participants

Overarching Goals

Referral Behavior
Keys to MST Engagement

- Treatment team responsible and accountable for engagement -- thus, therapists are taught to “never give up” on engaging a family
- Treatment is strength-focused
- Family members are viewed as full collaborators, with treatment goals set primarily by family members
Keys to MST Engagement (continued)

• Services are individualized and comprehensive to meet multiple changing needs of youth and families
• Services are provided in the natural ecology, which decreases barriers to delivery
• Low caseloads provide time needed to establish treatment alliance
• Appointments are at times convenient for the family
Environmental Analysis and Engagement of Family and Key Participants

MST Analytical Process

- MST Conceptualization of ‘Fit’
- Re-evaluate
- Prioritize
- Intermediary Goals
- Intervention Development
- Intervention Implementation
- Measure
- Assessment of Advances & Barriers to Intervention Effectiveness
- Overarching Goals
- Desired Outcomes of Family and Other Key Participants
- Referral Behavior
Conceptualization of Fit is Guided by Causal Models of Delinquency and Drug Use

Condensed Longitudinal Model

- **Family**
  - Low Parental Monitoring
  - Low Affection
  - High Conflict

- **School**
  - Low School Involvement
  - Poor Academic Performance

- **Prior Delinquent Behavior**

- **Delinquent Peers**

- **Delinquent Behavior**

*Elliott, Huizinga & Ageton (1985)*
MST Analytical Process

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

Desired Outcomes of Family and Other Key Participants
Intervention Development

Based on 9 MST treatment principles - operationalize MST treatment fidelity

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)
MST Analytical Process

- Overarching Goals
- Desired Outcomes of Family and Other Key Participants
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- Intervention Implementation
- Intervention Development

Referral Behavior

Desired Outcomes of Family and Other Key Participants

MST Conceptualization of “Fit”
MST Theory of Change

MST → Improved Family Functioning → Peers → School → Community → Reduced Antisocial Behavior And Improved Youth Functioning
Environment of Alignment and Engagement of Family and Key Participants

MST Conceptualization of “Fit”

Assessment of Advances & Barriers to Intervention Effectiveness

Intermediary Goals

Overarching Goals

Measure

Intervention Implementation

Do

Re-evaluate

Prioritize

Desired Outcomes of Family and Other Key Participants

Referral Behavior

MST Analytical Process
Treatment Process Supported by MST Quality Assurance System

Elements of the MST Quality Assurance system:

- Research-validated adherence technologies
- Development planning for all professionals
- Structured training (orientation and booster)
- On-the-job training (on-going, weekly expert case review and consultation)
- Weekly clinical supervision
MST Quality Assurance System
Why the Emphasis on Quality Assurance?

Research-based adherence measures:

- Youth criminal charges 36% lower for families with high adherence scores than for families with low adherence scores
- Youth criminal charges 53% lower for families with high supervisor adherence scores than for families with low supervisor adherence scores
- Consultant/MST expert adherence predicts improved therapist adherence and improved youth outcomes
MST Transportability Study: Relationship between Therapist Adherence and Youth Criminal Outcomes (2.3 year follow-up)

TAM-R Predicting Post-Treatment Criminal Charges

Number of Post-Treatment Charges vs. TAM-R Score

- 0 (Min.)
- 0.38 (-1 SD)
- 0.64 (Mean)
- 0.92 (+1 SD)
- 1 (Max.)
Implications of research:

• High adherence is essential for obtaining outcomes with difficult clinical populations.

• Intensive training and supervisory protocols are necessary to obtain high adherence.

• To obtain the best outcomes, MST programs must “institutionalize” the collection and monitoring of adherence and operational data.
MST’s Research Heritage: 30+ Years of Science

18 Randomized Trials and 2 Quasi-Experimental Trials Published (>2000 families participating)

- 8 with serious juvenile offenders
  - 3 independent randomized trials
- 2 with substance abusing or dependent juvenile offenders
- 3 with juvenile sexual offenders
- 3 with youths presenting serious emotional disturbance
  - 1 independent quasi-experimental trial
- 1 with maltreating families
- 3 with adolescents with chronic health care conditions
  - all independent (diabetes, obesity, HIV, asthma)

Other randomized trials are in progress
Consistent Outcomes

In Comparison with Control Groups, MST:

- Decreased long-term rates of rearrest 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
- Decreased adolescent psychiatric symptoms
- Decreased adolescent substance use
- Higher consumer satisfaction

But, none of this happens without adherence to MST
Bridging the Gap: University to Community

- University-based research projects often show promising results which cannot be replicated by community-based programs
- MST has successfully made this transition
  - Positive university-based research
  - Positive community-based research
  - Focusing on the implementation of effective community-based MST programs
MST Delinquency Clinical Trials
Effect Sizes

Study Number

The Missouri Delinquency Project
Long-term (14 year) Follow-up Study

Schaeffer, C.M., and Borduin, C.M. (2005)
第9章 MSTのアウトカム：比較対照評価から得られるもの

図9.1 ミズーリ州非行プロジェクトの生存時間解析
14-Year Follow-Up Sample

- Attempted to locate all participants (N = 176) who were randomly assigned to MST or individual therapy in Borduin et al. (1995) clinical trial
- Successfully located 165 (94%) of the original participants
- Average age at follow-up: 28.8 years (range = 24 to 32 years)
- Outcomes examined: criminal recidivism and days sentenced in adulthood
All Arrests

- 14-Year Follow-Up

54% reduction

MST

Individual Therapy

3.96

1.82

54% reduction
Violent Arrests

- 14-Year Follow-Up

59% reduction
Drug-Related Arrests

- 14-Year Follow-Up

64% reduction

MST

Individual Therapy

0.55

0.20
Adult Days Sentenced

• 14-Year Follow Up

1357 days/
3.72 years

582 days/
1.59 years

57% reduction

MST

Individual Therapy
An Independent Effectiveness Trial of MST with Juvenile Justice Youth - The Ohio Replication Study

Jane Timmons-Mitchell
Monica B. Bender, Maureen A. Kishna and Clare C. Mitchell

Funded by the Ohio Office of Criminal Justice Services
Ohio Independent Replication Trial

Independent effectiveness trial of 105 youth offenders:

- juvenile felons at imminent risk of placement
- averaged approximately seven prior offenses
- were predominantly male (78%) and white (78%)
Ohio Independent Replication Trial

Results for the MST group 2 years after completion:

- 39% fewer arrests and arraignments per youth over the two years (1.4 vs. 2.3)
- significantly improved functioning for MST group in the home, at school and in the community.
Ohio Independent Replication Study Quality

- High quality replication conducted by independent researchers (i.e. not the program's developers).
- Low attrition: At the 2-year follow-up, outcome data on arrest rates were collected for 89% of the original sample.
- Conducted in a community mental health setting providing evidence of its real-world effectiveness.
- Used official arrest data to measure criminal behavior.
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”
Bottom Line: Why is MST Successful?

- Treatment targets known causes of delinquency: family relations, peer relations, school performance, community factors
- Treatment is family driven and occurs in the youths’ natural environment
- Providers are accountable for outcomes
- Staff are well trained and supported
- Significant energies are devoted to developing positive interagency relations
Today’s Word: Thanks for Coming
For More Information

- MST Program Development: <mstservices.com>
- MST-Related Research: <musc.edu/fsrc>