MULTISYSTEMIC THERAPY (MST):

Effective Treatment for Adolescent Substance Abuse

Renne Dragomir, PCC-S, IMFT, LICDC
Maureen Kishna, MSSA, LISW-S
Pamela Mitterling, RN, LSW, PCC-S, LICDC
Objectives

- Identify the key practice theories underlying the MST model
- Describe the characteristics of the target population for MST
- Understand the correlation between disruptive behavior and substance abuse
- Explain why various treatment interventions are effective for this population
- Identify some concepts that could represent paradigm shifts for some traditional providers
Causal Model for Teen Substance Abuse:

**Family Factors**
- Low parental monitoring
- Low warmth / affection
- High conflict

**School Factors**
- Low school involvement
- Poor academic performance

**Prior Substance Use**

**Substance-Abusing Peers**

**Teen Substance Use / Abuse**
From the Causal Model:

- MST interventions address family and school factors contributing to negative peer association and ultimately, teen substance abuse.

- MST addresses problematic behaviors primarily via family interventions.

- MST uses proven strategies tailored to each unique family’s needs, resources, supports, and abilities.
MST Theory of Change

MST

Improved Family Functioning

Peers

School

Community

Reduced Deviant Behaviors and Improved Functioning
Early MST Research

Initial MST Drug Studies:

• **Simpsonville, SC Study (1992)**
  -reduced teen self report of use

• **Missouri Delinquency Project (1995)**
  -4-yr follow-up: 4% arrest rate for MST youth; 16% for control grp (individual therapy)
  -14-yr follow-up: fewer drug arrests for MST youth
  -22-yr follow-up: fewer arrests of all kinds
MST Research

Outcomes w/Diagnosed Substance-Abusing or Dependent Juvenile Offenders (1999)

- 118 juvenile offenders, 98% retained in treatment
- 56% diagnosed with substance abuse; 44% dependent
- Random assignment to MST or usual condition (individual therapy)
- Reductions in self reports of use
- At 4-yr follow-up (2002):
  - 55% MST youth abstinent compared to 28% of individual therapy youth
MST+ Research

Outcomes Integrating Contingency Management into MST

- Family and Neighborhood Services Project (2005)
  - 100% abstinent from cocaine
  - 85% abstinent from marijuana 7 weeks post-treatment

- MST Drug Court Study
  - MST enhanced substance-related outcomes
  - MST with CM resulted in quicker reductions in use
  - MST with/without CM resulted in similar outcomes at the 1-yr mark
# Recent Research


<table>
<thead>
<tr>
<th>Category</th>
<th>MST</th>
<th>IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Felony</td>
<td>34.8</td>
<td>54.8</td>
</tr>
<tr>
<td>Violent Felony</td>
<td>4.3</td>
<td>15.5</td>
</tr>
<tr>
<td>Nonviolent Felony</td>
<td>34.8</td>
<td>51.2</td>
</tr>
<tr>
<td>Any misdemeanor</td>
<td>60.9</td>
<td>65.5</td>
</tr>
<tr>
<td>Family Instability Suits</td>
<td>30.4</td>
<td>47.6</td>
</tr>
<tr>
<td>(divorce, paternity, child support)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Instability</td>
<td>30.4</td>
<td>31.0</td>
</tr>
<tr>
<td>(account/credit, contract and/or rent suits)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MST Support & Accolades

- National Institute on Drug Abuse (NIDA)
- U.S. Department of Health and Human Services
- President’s New Freedom Commission on Mental Health
- U.S. Public Health Service
- Surgeon General’s Report
- Center for Substance Abuse Treatment (CSAT)
- Substance Abuse and Mental Health Services Administration (SAMHSA)
- Blueprints for Violence Prevention
- Washington State Institute for Public Policy (WSIPP)
- Centers for Medicare and Medicaid Services (CMMS)
- Coalition for Evidence-Based Policy
- Office of Juvenile Justice and Delinquency Prevention (OJJDP)
- Institute for Public Policy Research (IPPR)
- Office of Justice Programs (OJP)
- Center for Substance Abuse Prevention (CSAP)
- National Institutes of Health (NIH)
- National Academy for Parenting Research (NAPR)
- National Alliance for the Mentally Ill (NAMI)
- Mental Health America (MHA)
- The White House: Helping America’s Youth
ASSESSMENT OF YOUTH SUBSTANCE USE IN MST
LINKS BETWEEN USE AND OTHER DISRUPTIVE BEHAVIORS

• MST assessment relies on OBSERVABLE links between use and current negative behaviors or outcomes
  • Law violations
  • Truancy and academic failure
  • Aggressive behavior
  • High family conflict
  • Physical impact of use requiring medical care
USE AND SAFETY RISKS

- MST assessment relies on evidence of high safety risks:
  - Use of particularly dangerous drugs (e.g. heroin, inhalants)
  - Use in quantities that create medical risk
  - Youth is a younger adolescent
  - Use in inappropriate settings (e.g. school, while driving)
  - Youth is suicidal
  - Youth has mental health needs (e.g. mania, depression, anxiety)
RECENT PATTERNS OF USE

If the previous criteria are met, assess from multiple sources using multiple methods

• Assess type of substance, frequency, intensity, and duration of use

• Assess for any signs of physical addiction and/or negative impact on health due to use

• Assess across all systems (family, peer, school, community, individual)
RECENT PATTERNS OF USE

- Learn where, when, and with whom the youth usually uses (typical occurrence)
- Obtain detailed sequences related to incidents of use
- Learn about the nature, length, and outcome of previous attempts to stop use
- Understand the fit of use
- Understand the fit of when youth doesn’t use
MST Analytical Process

- Overarching Goals
  - Referral Behavior
  - Desired Outcomes of Family and Other Key Participants
  - Environment of Alignment and Engagement of Family and Key Participants

- MST Conceptualization of “Fit”
  - Measure
  - Do
  - Intervention Development
  - Intervention Implementation

- Prioritize
  - Intermediary Goals
  - Re-evaluate
  - Assessment of Advances & Barriers to Intervention Effectiveness
  - Overarching Goals
Youth Substance Abuse (Common Drivers)
Youth Substance Abuse (Common Drivers)

- Low parental/adult supervision/monitoring
- Easy access to substances
- Lack of involvement with positive activities and positive peers
- Youth is bored
- Truancy and/or poor school performance
- High family conflict
- Use is reinforcing/pleasurable
- Low warmth/affection at home
- Associates with peers and/or family members who use
- Low association with non-using peers
- Lack of parental consequences
COMMON SYSTEM DRIVERS

**Family**
- low monitoring
- ineffective discipline
- high family conflict
- low family warmth
- parental substance use
- access to substances
- parental tolerance of use

**School**
- truancy
- low structure
- opportunities to use at school
- school doesn’t respond to use
- low youth involvement

**Individual**
- drug effects are reinforcing
- lack of refusal skills
- poor social skills
- favorable attitudes toward deviant behaviors

**Peers / Community**
- peers use, condone use
- low parental knowledge of peers
- lack of prosocial activities
- peers/others provide access
- available in neighborhood
PRIORITIZATION OF THE DRIVERS

- Together with caregivers, identify the top drivers to youth use
- Select those drivers which, if addressed successfully, would have the most powerful and immediate impact on youth substance use
- Next step: Develop interventions targeting those top drivers, utilizing family strengths
- Practice interventions via role play
- Coach caregivers through first attempts to intervene
INTERVENTIONS FOR YOUTH SUBSTANCE ABUSE IN MST
MST assessment and interventions to reduce or eliminate substance use will largely be similar to interventions used in MST to address other negative behaviors.
PREREQUISITE

Collaboration with medical or other professionals as needed to address any health impact of use

In rare circumstances, physical dependency, including the potential for withdrawal symptoms, must be addressed by appropriately trained medical personnel prior to behavioral intervention

MST: Effective Treatment for Adolescent Substance Abuse
ACCESS TO APPROPRIATE MEDICAL CARE

Therapist helps caregiver to:

• If indicated, seek medical treatment
• If dependent/addicted to drugs or medically unstable, seek appropriate detoxification settings that are “MST-friendly”
  - i.e., will involve the MST therapist in treatment planning
• If using drugs by injection, reduce risk and/or seek treatment for infectious diseases related to use (e.g. HIV, Hepatitis, TB)
Environment of Alignment and Engagement of Family and Key Participants

MST Analytical Process

Re-evaluate

Prioritize

MST Conceptualization of “Fit”

Overarching Goals

Desired Outcomes of Family and Other Key Participants

Referral Behavior

Assessment of Advances & Barriers to Intervention Effectiveness

Measure

Do

Intervention Implementation

Intervention Development

Intermediary Goals
**Key Interventions**

- Engage caregivers in addressing the drivers to use
- Identify signs of use, increase parental monitoring
- Reduce access to substances
- Alter peer and community ecologies
- Improve parental discipline strategies
- Reduce family conflict/increase family warmth
- Improve home-school link and improve school monitoring and discipline strategies
- Involve caregivers in individual youth interventions
- At times, must also address caregiver substance use
ENGAGING CAREGIVERS IN ADDRESSING THE DRIVERS TO USE

Predict potential barriers to engagement around addressing these drivers

- Caregiver beliefs, values, attitudes about use
- Caregiver beliefs, understanding of effective treatment
- Caregiver awareness of use and its impact
- Caregiver beliefs about his / her ability to impact use
ENGAGING CAREGIVERS IN ADDRESSING THE DRIVERS TO USE

- Ensure the therapist’s approach is highly collaborative and well grounded in the caregiver’s perspective

- Connect changes in substance using behavior to desired outcomes—avoid a confrontational or adversarial stance

- Document evidence of substance use as a barrier to effective functioning of the youth

- Offer hope that substance use can be impacted by caregiver interventions
IDENTIFYING SIGNS OF USE / INCREASE PARENTAL MONITORING

Therapist helps caregivers to:

- Identify and monitor youth for observable signs of use

- Conduct random searches (house, yard, bedroom, backpack, etc) to find substances, extra cash, paraphernalia, etc.

- Implement regular urinalysis screens or other objective monitoring of use (e.g. breath strips for alcohol use)

- Assess peer group and activities (large amounts unsupervised time, on probation/court-involved, known use, etc.)
Reducing Access to Substances

Therapist helps caregivers to:

- Engage in close supervision of the youth 24/7, and youth’s communications, to reduce opportunity to access and use drugs or alcohol

- Remove or secure substances in all settings (home, community, peers’ homes, etc..,) including substances found through searches

- Carefully manage youth’s access to money, including income from jobs

- Procure prosocial activity time with non-using peers to decrease time with using peers and reduce gaps in supervision
CHANGING YOUTH PEER AND COMMUNITY ECLOGIES

Therapist helps caregivers to:

- Increase youth contact with peers and community members who don’t use
- Increase youth involvement in supervised and structured prosocial activities
- Decrease contact with peers and community members who use
- Engage stakeholders to avoid putting the youth in settings with other youth who use

Key point: addressing negative peer association is key
Improving Parental Discipline

Therapist helps caregivers to implement contingencies for use and non-use

- Behavior plan with clear and consistent expectations
- Effective positive and negative consequences
  - Powerful incentives for non-use behaviors
  - Consistently enforced sanctions for use (e.g. for dirty drug screens)
  - Increased intensity of consequences if needed to address higher intensity and higher frequency use, including use of graduated consequences
REDUCING FAMILY CONFLICT / INCREASING FAMILY WARMTH

IMPROVING FAMILY RELATIONS:

• Detection of patterns of interaction via written sequences

• Family conflict resolution skills
  - early identification of conflict
  - interventions to interrupt conflict and avoid escalation

• Collaborative problem-solving skills

• Increased positive interactions and positive reinforcement

• Establishment of a parent-child hierarchy
The caregiver implements contingency management strategies:

- **Clear expectations for no use**

- **Monitoring for evidence of drug use (e.g., urine screens or breathalyzers)**

- **Meaningful reinforcement for clean screens and for following other plans**
  - Activities or vouchers for activities from significant others
  - Praise from social supports

- **Strong negative consequences for dirty screens and other evidence of use**
NOTE:

- Structured prosocial activities and behavioral incentives have to be powerful enough to compete with the reinforcing effects of use, and of time spent using with peers

- Caregivers are our best resource to identify what’s meaningful to their children

- Non-tangible privileges can be effectively used; be creative!
Facilitating School Success

Therapist helps caregivers to:

- Increase connection to and communication with school to facilitate effective monitoring
- Establish home-based rules related to school attendance, behavior, and academic effort linked to home-based incentives and negative consequences
- Improve school attendance
- Facilitate youth’s positive school performance
- Encourage youth ‘belongingness’ to school via involvement in school-based activities, sports, clubs, etc.
- Collaborate with school staff to:
  - Monitor youth at school
  - Implement consequences for evidence of use during school hours
ADDRESSING INDIVIDUAL YOUTH NEEDS

Therapist helps caregivers to:

- Initiate interesting activities and/or situations to reduce boredom and provide alternative sources of reinforcement and influence for youth

- Teach and practice refusal skills to youth

- Alter youth’s thinking patterns re: perceived benefits of use and positive attitudes toward antisocial behavior, including use

- Assist youth in developing appropriate social skills
COMMON INDIVIDUAL YOUTH INTERVENTIONS

- **Cognitive-Behavioral Strategies**
  - understand sequences of use
  - alter cognitions about use and leading up to use
  - skills training to enhance self control (e.g., refusal skills, problem-solving skills, social skills, conflict resolution skills, coping skills, etc.)
  - contingency management

- **Social Ecological Change**
  - prosocial activity involvement

- **Access to Appropriate Medical Care**

- **Predict and Plan for Relapses**
ADDRESSING INDIVIDUAL CAREGIVER BARRIERS

- At times, it becomes necessary to address caregiver substance use and/or mental health
  - when caregiver use/mental health contributes to youth use
  - when caregiver use/mental health presents barriers to treatment progress (e.g., inability to supervise or provide contingencies)

- A similar process is used for caregiver use/mental health, but it is more highly collaborative with the adult:
  - assessment, then intervention
  - shift from full focus on youth to caregiver behavior
  - use of caregiver social supports
ADDRESSING FAMILY MEMBERS WHO CONDONE OR PERMIT USE

- Understand the fit
- Work to engage family member(s) in supporting youth abstinence
- Engage family member(s) in securing and/or removing all substances and paraphernalia from household
- Engage family member(s) in not using or being under the influence when around youth
Youth Substance Abuse (Common Drivers)

- Low parental/adult supervision/monitoring
- Easy access to substances
- Lack of involvement with positive activities and positive peers
- Lack of parental consequences
- Low association with non-using peers
- Associates with peers and/or family members who use
- Use is reinforcing/pleasurable
- Low warmth/affection at home
- High family conflict
- Youth is bored
- Truancy and/or poor school performance
- Low association with non-using peers
GENERALIZING AND SUSTAINING TREATMENT GAINS

Therapist works with the family to:

• Assess the ‘fit’ of the successes

• Expect relapses, and use relapses during treatment proactively to identify gaps in plans

• Quickly detect use and/or risk of use

• Develop problem-solving skills to address subsequent or re-emerging signs or symptoms of use

• Prepare for continued implementation of plans developed in treatment- therapist commonly leaves family with a written sustainability plan for future reference
SOCIAL ECOLOGICAL CHANGE

- Caregivers involve family to support interventions
- Address family or relationship conflict
- Address life stressors (school, peer relations, etc.)
- Modify the youth’s social network:
  - Use of supervised, structured prosocial activities
  - Increase time with existing friends who don’t use
  - Increase supervision/monitoring
  - Get to know and assess peers and need for supervision
  - Reduce access to high-risk settings and peers
  - Monitor peer interactions, associations, and influences
Youth Abstinence (Common Drivers)

- Strong adult supervision/monitoring
- Consistent parental consequences
- Low association with using peers
- Associates with peers and/or family members who do not use
- Receives reinforcement for abstinence
- Low access to substances
- Involvement with positive activities and positive peers
- Youth is engaged in activities
- Low family conflict
- Regular school attendance and/or positive school performance
- High warmth/affection at home
PREDICT AND PLAN FOR RELAPSES

Therapist helps caregiver to:

• Use strategies similar to those outlined as per youth sustainability planning
• See relapses in substance use behaviors as manageable
• Normalize lapses and view them as similar to other behaviors (e.g. lapses in following regimens to treat diabetes or asthma)
Assessment of Advances and Barriers to Intervention Effectiveness
MST Analytical Process

Referral Behavior

Desired Outcomes of Family and Other Key Participants

Overarching Goals

Environment of Alignment and Engagement of Family and Key Participants

MST Conceptualization of “Fit”

Re-evaluate

Assessment of Advances & Barriers to Intervention Effectiveness

Prioritize

Intermediary Goals

Intervention Implementation

Measure

Do

Intervention Development
FORMAL MAINTENANCE PLANNING

Continuous implementation of those interventions that have proven effective (example):

• Regular random urine drug testing
• Continued use of positive and negative contingencies for drug screen results and other evidence of use
• Active involvement in prosocial supervised activities
• Use of family conflict resolution strategies
• Ongoing supervision / monitoring practices
• Active knowledge / assessment of peers
YOUTH SUBSTANCE ABUSE INTERVENTIONS CASE EXAMPLE

• How was youth referred?
• What were the family’s first thoughts about MST, or about the therapist?
• What kinds of interventions were used to address youth substance use?
• What barriers were encountered along the way?
• What was the outcome?
• What is your family’s sustainability plan? (what do you do now to prevent use, and to address it if/when it does happen?)
CONTACT INFORMATION

Patrick Kanary, Director
Center for Innovative Practices
Begun Center for Violence Prevention
Mandel School of Applied Social Sciences
Case Western Reserve University

Patrick.kanary@case.edu