# Multisystemic Therapy for Child Abuse and Neglect® (MST-CAN®)

A family-based solution for child physical abuse and neglect

MST Services®

An Empower Community Care Organization

Proven Results

for Families and Communities

# Function of MST-CAN

## Short Model Overview

Child maltreatment is defined as physical, sexual or emotional abuse, or neglect of a child or group of children. It can occur in many different environments: at home, school or in any of the organizations and communities that a child is part of. Unsurprisingly, child abuse and neglect can result in negative consequences for individual children and families in both the short- and long-term. In the short-term, anxiety, depression, self-harm, substance abuse, aggression and symptoms of posttraumatic stress can occur. Maltreatment can also influence functioning later in life, including mental health difficulties, substance abuse, negative parenting practices, and serious physical health problems.

Multisystemic Therapy for Child Abuse and Neglect (MST-CAN) is an evidence-based treatment program for children ages 6-17 and their families, who come under the guidance of Child Protective Services (CPS) due to physical abuse and/or neglect. Backed by rigorous research, MST-CAN is an intensive therapy, lasting six to nine months that addresses the specific problems that brought the family to CPS plus important risk factors. The families that receive MST-CAN are generally those with serious clinical needs and who are at high risk of out-of-home placement of their child. The major goals of MST-CAN are to: 1) keep families together; 2) assure that children are safe; 3) prevent abuse and neglect; 4) reduce mental health difficulties experienced by adults and children; and, 5) increase natural social supports.

## Structure

Multisystemic Therapy for Child Abuse and Neglect (MST-CAN®) as an intervention is tailored to different family situations and risk factors and tied to the most recent evidence-based treatments and is delivered in the home. Historically, in the child maltreatment field, interventions have focused on only one individual – the parent or the child. They also tend to be limited to only one of the numerous risk factors; for example, poor parenting or child behavior problems. In some cases, this may be sufficient to induce positive change, but it is often insufficient in more complex situations. Scientific literature shows that the factors leading to physical abuse and neglect are complicated and interconnected, involving multiple systems from family to social ecology to school.

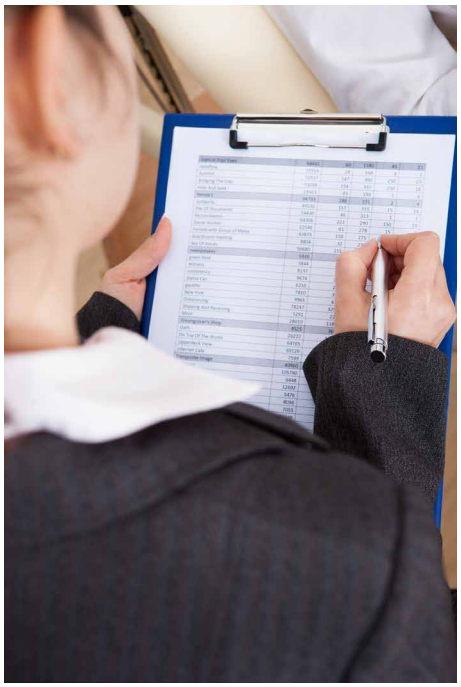
MST-CAN provides a holistic approach to physical abuse and neglect cases by taking into account the wide range of possible risk factors and systems involved. MST-CAN focuses on families and communities as a whole, tailoring interventions to the social ecology surrounding the individual experiencing physical abuse or neglect. Indeed, providing support for families where abuse or neglect is taking place means more than simply helping children or removing them from potential harm. As has been shown in MST-CAN teams in 6 countries, parents in complex situations involving

abuse or neglect often have significant difficulties managing their own mental health challenges such as trauma, substance misuse, and family and partner conflict. In addition, children in the family may have their own mental health difficulties such as anxiety, depression, or aggression and these difficulties impact school functioning. Due to the myriad difficulties and risk factors in a given family, Child Protection caseworkers must find treatments for many family members. This quest generally involves multiple providers (sometimes as many as 10) that see family members individually and that do not have the time capacity to talk to each other to coordinate the treatments. By and large families are unable to uptake all of these different treatments with all the different providers and cannot meet the goals Child Protection has for them. As such, in serious, complex cases, the very system designed to help may present an unsurmountable requirement for families. The way individual treatments are delivered is not feasible for families and so they may give up leading to placement of the child.

In addition, families that have faced mental health challenges and prior Child Protection involvement are typically hard to engage in treatment due to low trust and fear. Engaging them to come to office appointments when they are afraid or have no transportation is difficult and adds to an already near impossible situation. Therefore, individual-focused interventions with multiple providers may be damaging in some cases, despite being well meaning.

# Program Expectations

## Supervision, Site Inspections



The MST-CAN clinical team includes three full-time therapists with a caseload of three to four families each, one full-time supervisor, one full-time family case manager, and one part-time psychiatrist or psychiatric nurse practitioner. The team treats problems occurring for each family member (e.g., parent trauma, parent substance abuse, child substance abuse, child trauma, school difficulties, marital or partner issues) and the treatment is provided with a strong focus on engagement and cultural considerations. Sessions occur in the home and community, taking away barriers to participation.

### Program Expectations (e.g. supervision, site inspection etc.)

The MST-CAN program start-up services include technical assistance and materials designed to produce a program description, projected budget, and implementation timeline. This includes a clear articulation of the target population, referral and discharge criteria and processes, and initial program evaluation planning. The MST-CAN Program Developer will visit the community to provide an overview presentation and meet with community stakeholders to assure the buy-in needed for program success after start-up. MST-CAN staff will also support the provider organizations with staff recruitment assistance.

When all initial staff are selected, the MST-CAN quality assurance process with the team begins. This process has the overarching purpose of assuring fidelity or adherence to the MST-CAN model (i.e., delivering the treatment the way it was delivered in successful research). Training and consultation for clinical staff shall be provided initially and in an ongoing manner. First, nine days of intensive orientation training (standard, core MST 5-day Orientation Training and MST-CAN 4-day Orientation Training) shall be provided for all staff who will provide any aspect of treatment and/or clinical supervision of MST-CAN cases. Also, four days of orientation training on treatment of adult and child trauma (MST-CAN 4-day Trauma Training) shall

# Function of MST-CAN

## Continued

be provided to all clinical staff. CPS staff that will be involved with the project will be invited to undertake the MST-CAN training.

Then, one and one-half day on-site booster sessions conducted by the MST-CAN expert shall occur on an ongoing quarterly basis. The booster sessions are designed to train the team on important clinical issues they identify as a need and to allow for discussion of particularly difficult cases. The training for trauma treatment follows cognitive behavioral models for adults (prolonged exposure) and children (based on trauma focused cognitive behavioral therapy).

Finally, treatment teams and their supervisors shall receive weekly team Supervision and then telephone consultation from trained MST-CAN experts . The MST-CAN Supervisor conducts weekly group supervision for the team to assure adherence to MST Principles, the MST Analytic Process and MST-CAN treatment model. Individual supervision is conducted as needed. Weekly telephone consultation is provided via 1.5-hour conference calls in which the treatment team and supervisor consult with the MST-CAN Expert regarding case conceptualization, goals, intervention strategies, and progress. The weekly consultation is designed to assist the team and supervisor in clearly articulating treatment priorities, identifying obstacles to success, and developing strategies aimed at successfully navigating those obstacles. In addition to this weekly consultation, it is expected that the contractor will provide onsite supervision by staff who have obtained an advanced degree in a clinical discipline (i.e., psychology, counseling, social work, psychiatry) and have had additional clinical experience with family-based services prior to receiving MST-CAN training. MST-CAN greatly values the opportunity for Child Protection workers involved the MST-CAN programs to attend training to facilitate their understanding of the model. In addition to training, once a month an independent interviewer will phone the parent or caregiver and conduct a brief interview to measure therapist adherence to the MST-CAN model.

## Program Service Capacity

Program capacity reflects both the average caseload size as well as the average length of treatment of clients served. Research has indicated that MST-CAN treatment typically lasts from 6 to 9 months (average of 7 months) and that caseloads range from 3 to 4 families. Caseload size may be impacted by such characteristics as the average time of the cases in treatment on a caseload (newer cases require significantly more time), number of adults and youth in the home that need intervention, and the relative complexity of the parent's behavior (e.g., parent with multiple distinct referral behaviors such as substance abuse and trauma.) In general, a program at full capacity reflects that each therapist will treat on average 6 families per year although one may estimate a slightly lower capacity (no less than 80% of full capacity) in the first program year due to various start-up factors. The MST-CAN clinical team should have three full-time therapists each with an annual caseload of three to four families each, and therefore an overall team caseload of 24 families per year once fully established.

## Cost of an MST-CAN Team

Like most behavioral health services, the costs of an MST-CAN program is largely driven by local staff salaries and related fringe and benefit expenses for the local agency implementing the program. Each MST-CAN team will have 5 full-time staff plus 20% time of a psychiatrist or psychiatric nurse practitioner. The annual cost of an MST-CAN program is likely to range from approximately $500,000 to $700,000 on an all-inclusive basis including the costs associated with staff hiring assistance, staff training, ongoing program support and QA oversight.

A 2015 report for the UK provided these findings:

"In summary it has been found that MST-CAN in the UK is cost effective as a service with an overall financial saving of £66,150.43 or a £1.04 return rate. The economic saving from this service was £408,422.00 and a return of £1.23. The treatment displays a cost saving despite the conservative nature of our estimates within this analysis."

U.S.A.:

A study of cost savings on the U.S.-based randomized trial is currently under peer review. Preliminary cost findings show that based on the study in South Carolina, MST-CAN results in a cost savings of US$2.93 for each dollar spent.

Switzerland:

MST-CAN cost was 16% to 50% lower than the cost of contingency plans.

## Cost Savings and Financial Benefits

UK: A 2015 report from the UK provides these findings:

"In summary it has been found that MST-CAN is cost effective as a service with an overall financial saving of £66,150.43 or a £1.04 return rate. The economic saving from this service was £408,422.00 and a return of £1.23. The treatment displays a cost saving despite the conservative nature of our estimates within this analysis."

Switzerland: A preliminary cost study on MST-CAN in Switzerland showed that MST-CAN was 16% to 50% lower than the cost of contingency plans.

U.S.A.: A study of cost savings on the U.S.-based randomized trial is currently under peer review. Preliminary cost findings show that based on the study in South Carolina, MST-CAN results in a cost savings of US$2.93 for each dollar spent.

## Clinical Outcomes for Family Served by MST-CAN and MST-BSF

A 5-year randomized trial of MST-CAN revealed that families served by MST-CAN had statistically better outcomes in these important areas:

- Fewer MST-CAN youth in out-of-home placements
- Fewer placement changes for MST-CAN youth who were placed
- Greater reductions in neglectful parenting (caregiver and youth report)
- Greater reductions in minor assault (youth report)
- Greater reductions in severe assault (caregiver and youth report)
- Greater reductions in psychological aggression (youth report)
- More likely to use nonviolent discipline
- Improvements in numerous additional areas related to behaviors, mental health and wellness, and positive social supports

A summary table of clinical outcomes from this MST-CAN 5-year randomized trial is included below. In addition to the research on MST-CAN, this work has led to an adaptation of the MST-CAN model called MST-Building Stronger Families (MST-BSF), a specialized substance abuse program that can be applied when 100% of families referred by Child Protection are experiencing physical abuse and/or neglect plus serious parental substance abuse. This specialty substance abuse model has been implemented clinically for 13 years in Connecticut and shows positive outcomes in a quasi-experimental study and in clinical data collected on families treated by each of the 6 teams across 2 years. A 5-year randomized trial has been completed and is in analysis phase. Summary tables of outcomes from the MST-BSF developmental and quasi experimental study and ongoing MST-BSF implementation are included below. Taken together, the existing research shows strong support for MST-CAN as an effective family-based solution for child physical abuse and neglect.

# Adaptations of Multisystemic Therapy for Families Experiencing Child Physical Abuse and Neglect

## MST for Child Abuse and Neglect (MST-CAN)

- 5 Year Randomized Trial funded by National Institute of Mental Health
- MST-CAN versus Enhanced Outpatient Therapy (EOT)
- Recruitment Rate – 98%
- Percent Treatment Completion: MST-CAN - 98% EOT – 83%
- Led to dissemination of MST-CAN in 6 countries
- Led to development of MST-Building Stronger Families (MST-BSF), a special program in which all parents or caregivers are engaging in substance misuse

| Child | Parent | Out-of-Home Placement | Reabuse |
|---|---|---|---|
| **Parent reported: Greater Reductions**<br>-Internalizing symptoms<br>-Total behavior problems<br>-PTSD symptoms | **Greater Reductions**<br>-Global psychiatric distress<br><br>**Greater Increases**<br>-Social Support<br>-Appraisal<br>-Belonging | -Significantly fewer MST-CAN youth in out-of-home placements<br><br>-MST-CAN youth who were placed experienced significantly fewer placement changes | Greater Reductions<br>-Minor assault (youth report)<br>-Severe assault (caregiver and youth report)<br>-Psychological aggression (youth report)<br>-Neglectful parenting (caregiver and youth report)<br>More likely to use nonviolent discipline<br>Fewer Incidents of Reabuse on CPS Reports (ns) |
| Child reported:<br>Greater Reductions<br>-PTSD Symptoms<br>-Dissociative Symptoms | | | |

# MST - Building Stronger Families (MST-BSF)

## Model Development and Quasi Experimental Study

- Special initiative for families experiencing abuse and/or neglect plus caregiver substance abuse
- Has been established in the State of Connecticut for 13 years
- Quasi Experimental Study funded by Annie E. Casey Foundation
  - MST-BSF pre and post; MST-BSF versus comprehensive community services
  - Recruitment Rate – 87%
  - Treatment Completion - 93%
- Led to dissemination of MST-BSF across 6 regions in Connecticut
- Led to National Institute on Drug Abuse funding for a 5-year randomized trial – analyses in progress

| Child | Parent | Out-of-Home Placement | Reabuse |
|---|---|---|---|
| -Significant decrease in anxiety (child report) | Significant Decreases<br>-Alcohol<br>-Drug use<br>-Depressive symptoms | -Significantly fewer days out of home<br><br>-Fewer youth placed (1/2; ns) | -Significant reductions in psychological abuse<br><br>-Significantly fewer reabuse incidences over 24 months (CPS report) |

## Clinical Outcomes (not research) of 6 teams in Connecticut over 2-year period

1. Dissemination through MST Services
2. Treatment Completion: MST-BSF - 93.4%
3. Discharged due to lack of engagement - 1.46%

| Child | Parent | Out-of-Home Placement | Reabuse |
|---|---|---|---|
| -91% improved mental health<br><br>-97% in school or working | -79% abstinent for drugs and alcohol last 30 days of treatment<br><br>-86% improved mental health | -94% of youth living at home | -88% no new maltreatment reports |

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