# Multisystemic Therapy (MST) Psychiatric Research Background

## What is MST Psychiatric?

MST Psychiatric is an adaptation of MST specifically designed to serve families with youth at risk of out of home placement due to serious psychiatric and behavioral problems.

## What types of youth are best served by MST Psychiatric?

Youth 9-17 years old, at risk of placement in correctional or mental health facilities due to serious behavioral problems, drug use/abuse and/or co-occurring mental health symptoms such as thought disorder, bipolar affective disorder, depression, anxiety and/or impulsivity.

## Description

The goal of MST Psychiatric is to improve behavioral problems, mental health symptoms, suicidal behaviors and family relations while increasing the amount of time youth spend going to school and living in home-based placements. MST Psychiatric clinicians receive standard MST training and ongoing quality assurance support as well as supplemental trainings designed to address:

1) Safety risks associated with suicidal, homicidal and psychotic behaviors in youth
2) The integration of evidence-based psychiatric interventions for youth and caregivers
3) Treatment of adolescent and caregiver substance use/abuse utilizing an evidence-based treatment, contingency management (CM)
4) Evidence-based assessment and treatment of youth and caregiver mental illness including anxiety disorders, depression, bipolar affective disorder, thought disorders, attention deficit hyperactivity disorder, impulse control difficulties and symptoms of borderline personality disorder

## Research Supporting MST Psychiatric – Two Published Randomized Clinical Trials

### MST as an Alternative to Psychiatric Hospitalization *(n = 156)* - Statistically Significant Findings [1, 2, 3,]

**Post treatment (4 months): Findings favoring MST [1,2]**

- Decreased externalizing symptoms - parent & teacher report (Achenbach, Child Behavior Checklist, CBC)
- Improved family functioning by youth and caregiver report (Olson, Family Adaptability and Cohesion Scale III, FACES III)
- Improved school attendance
- 73% reduction in days hospitalized
- 49% reduction in days in other out of home placements
- Improved youth & caregiver satisfaction

**1 Year Follow-Up (16 months): Findings favoring MST [3]**

- Reduced suicide attempts by youth report on the CDC Youth Risk Behavior Survey

### Hawaii Continuum of Care Project *(n = 31)* - Statistically Significant Findings [4]

**Post treatment (6 months): findings favoring MST**

- Decreased externalizing symptoms by youth report (Achenbach, CBC)
- Decreased internalizing symptoms by youth report (Achenbach, CBC)
- Decreased self-reported minor delinquency (Elliott et al., Self-Report Delinquency Scale, SRD)
- Decreased days (68%) in out of home placement
- Increased days (42%) in regular school settings
- Marginally significant improvements in youth criminal activity (arrest records)
- Marginally significant improvements in caregiver satisfaction with social supports

## Research Supporting MST Psychiatric – Unpublished Findings

**Philadelphia MST Continuum of Care Randomized Clinical Trial *(n=63),* Statistically Significant Findings 6 months post recruitment: findings favoring MST**

- Decreased internalizing symptoms by youth and caregiver report (Achenbach, CBC)
- Decreased caregiver self-report of alcohol use (Winters, Personal Experience Inventory, PEI)
- Increased family cohesion by youth report (Olson, FACES III)
- Increased days in community-based placements (home and MST-based therapeutic foster care)
- Usual services youths spent significantly more days in residential placement

**Caregiver report of MST therapist adherence on the Therapist Adherence Measure (TAM) predicted**:

- Improved discipline at 6 and 12 months
- A trend toward improved family cohesion at 12 months (Olson, FACES III)

**Independent observer ratings of MST adherence on audiotaped sessions predicted:**

- Decreased caregiver psychiatric symptoms at 12 months (Derogatis, Brief Symptom Inventory, BSI)

**Arrow Program *(n=112),* Statistically Significant Improvements (pre- to post-treatment, unpublished)**

Funded by the Robin Hood Foundation, the Arrow Program, housed within the New York Foundling, is designed to provide MST Psychiatric treatment across 5 boroughs for families served by New York City, Administration for Children's Services' (ACS) Juvenile Justice Initiative (JJI) and Family Assessment Program (FAP) when the youth or caregivers have psychiatric service needs that are too intense for routine MST or the other home-based models provided by these initiatives.

**Caregivers report a significant reduction in youth behavioral and emotional problems**

- Reductions in total problem behaviors, externalizing and internalizing behaviors (Achenbach, CBC)

**Caregivers report improved psychological functioning**

- Less psychological distress, interpersonal sensitivity, depression, paranoid ideation, psychoticism, somatization, hostility and fewer overall symptoms (Derogatis, BSI)

**Caregivers report better family functioning**

- Improvements in family cohesion (Olson, FACES III)

**MST Institute's *Program Implementation and Data Report* for the 2013 year**

Of the youths served in 2013, therapists reported these outcomes at discharge from treatment:

- 90% were living at home
- 81% were in school or working
- 72% had not experienced a new arrest

## Recognition of MST Psychiatric as an Evidence-Based Practice

**NREPP** – Substance Abuse & Mental Health Services Administration (SAMHSA), National Registry of Evidence-based Programs and Practices (NREPP) since 2009 http://www.nrepp.samhsa.gov/viewintervention.aspx?id=17

**Crime Solutions.gov** – National Institute of Justice https://www.crimesolutions.gov/ProgramDetails.aspx?ID=176

## References


[1] Henggeler, S.W., Rowland, M.D., Randall, J., et. al., Home based Multisystemic Therapy as an Alternative to the Hospitalization of Youths in Psychiatric Crisis: Clinical Outcomes. *Journal of the American Academy of Child & Adolescent Psychiatry 38,*1331-1339.

[2] Schoenwald, S.K., Ward, D.M., Henggeler, S.W., & Rowland, M.D. (2000). MST vs. hospitalization for crisis stabilization of youth: Placement outcomes 4 months post-referral. *Mental Health Services Research*, 2, (1), 3-12.

[3] Huey, S.J., Jr., Henggeler, S.W., Rowland, M.D., Halliday-Boykins, C.A., Cunningham, P.C., Pickrel, S.G., & Edwards, J. (2004). Multisystemic therapy effects on attempted suicide by youth presenting psychiatric emergencies. *Journal of the American Academy of Child & Adolescent Psychiatry*, 43, 183-190.

[4] Rowland, M.D., Halliday-Boykins, C.A., Henggeler, S.W., Cunningham, P.B., Lee, T.G., Kruesi, M.J.P., & Shapiro, S.B. (2005). A randomized trial of multisystemic therapy with Hawaii's Felix Class youths. *Journal of Emotional and Behavioral Disorders,* 13 (1).13-23.