

## Multisystemic Therapy (MST) for youth with serious emotional disturbance (SED) Children's Mental Health: Serious Emotional Disturbance Literature review updated July 2018.

As part of WSIPP's research approach to identifying evidence-based programs and policies, WSIPP determines "what works" (and what does not work) to improve outcomes using an approach called meta-analysis. For detail on our methods, see our [Technical Documentation](#). At this time, WSIPP has not yet calculated benefits and costs for this topic.

Program Description: Multisystemic Therapy (MST) is an intensive family- and community-based treatment, which combines aspects of cognitive, behavioral, and family therapies. The purpose of MST is to reduce juvenile delinquency and youth substance use and empower parents to manage future difficult behavior. Children with serious emotional disturbance are most often referred to MST by child welfare agencies, juvenile courts, and schools. MST therapists provide individualized treatment in a child's home, school, or community for an average of five months. These therapist-led sessions aim to modify the youth's environment to support lasting behavioral changes through goal-setting, weekly treatment tasks, and progress monitoring. MST is often conducted with court-involved youth as a requirement of their adjudication; however, the studies included in this analysis primarily focused on children with serious emotional disturbance either without or prior to adjudication.

### Meta-Analysis of Program Effects

Outcomes measured	No. of effect sizes	Treatment N	Adjusted effect size and standard error			Unadjusted effect size (random effects model)	
			ES	SE	Age	ES	p-value
School attendance	1	79	-0.364	0.220	14	-0.364	0.098
Alcohol use before end of middle school	1	57	-0.151	0.188	14	-0.289	0.126
Cannabis use before end of middle school	1	57	0.023	0.188	14	0.045	0.812
Alcohol use before end of high school	1	79	-0.103	0.160	14	-0.103	0.522
Attention-deficit/hyperactivity disorder symptoms	1	290	-0.098	0.085	14	-0.098	0.249
Major depressive disorder	1	78	-0.017	0.160	14	-0.033	0.835
Disruptive behavior disorder symptoms	7	733	-0.229	0.054	14	-0.248	0.001
Internalizing symptoms	4	212	-0.113	0.133	14	-0.130	0.352
Hospitalization (psychiatric)	2	136	0.137	0.168	14	0.137	0.414
Suicide attempts	1	78	-0.153	0.160	14	-0.294	0.278
Suicidal ideation	1	78	-0.016	0.160	14	-0.031	0.887
Out-of-home placement	5	1027	-0.240	0.081	14	-0.462	0.001
Illicit drug use before end of high school	1	79	0.128	0.160	14	0.128	0.425
Crime	6	1189	-0.058	0.064	14	-0.094	0.338

Meta-analysis is a statistical method to combine the results from separate studies on a program, policy, or topic in order to estimate its effect on an outcome. WSIPP systematically evaluates all credible evaluations we can locate on each topic. The outcomes measured are the types of program impacts that were measured in the research literature (for example, crime or educational attainment). Treatment N represents the total number of individuals or units in the treatment group across the included studies.

An effect size (ES) is a standard metric that summarizes the degree to which a program or policy affects a measured outcome. If the effect size is positive, the outcome increases. If the effect size is negative, the outcome decreases.

Adjusted effect sizes are used to calculate the benefits from our benefit cost model. WSIPP may adjust effect sizes based on methodological characteristics of the study. For example, we may adjust effect sizes when a study has a weak research design or when the program developer is involved in the research. The magnitude of these adjustments varies depending on the topic area.

WSIPP may also adjust the second ES measurement. Research shows the magnitude of some effect sizes decrease over time. For those effect sizes, we estimate outcome-based adjustments which we apply between the first time ES is estimated and the second time ES is estimated. We also report the unadjusted effect size to show the effect sizes before any adjustments have been made. More details about these adjustments can be found in our [Technical Documentation](#).

## Citations Used in the Meta-Analysis

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