



# Multisystemic Therapy® (MST®) Research at a Glance

**Published MST Outcome,  
Implementation and  
Benchmarking Studies**

*January 2019*

# Multisystemic Therapy® (MST®) Research at a Glance

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MST is an internationally recognized program for at-risk youth and their families. For more than 30 years, MST has consistently demonstrated positive outcomes with chronic juvenile offenders. Based on the program's success, rigorous randomized trials were conducted to explore the feasibility and effects of adaptations of MST with other target populations. Results have been positive for treating problem sexual behavior, child abuse and neglect, substance abuse, serious emotional disturbances and chronic health care conditions. This document highlights the many areas of MST research and proven outcomes with traditional MST and MST clinical adaptations as well as research on the transport of MST to community practice settings.

## RESEARCH HIGHLIGHTS

- **74** published outcome, implementation and benchmarking studies
- Yielding more than **140** published, peer-reviewed journal articles
- More than **57,000** families included across all studies
- **26** randomized trials
- **51** of the **74** studies conducted by independent researchers (not involving an MST model developer)
- **16** outcome studies using MST with serious juvenile offenders:
  - *11 randomized trials*
  - *7 independent studies*
  - *7 international studies*
- **18** outcome studies using MST with adolescents with serious conduct problems
  - *7 randomized trials*
  - *15 independent studies*
  - *8 international studies*
- **2** outcome studies with substance-abusing or -dependent juvenile offenders (MST-Substance Abuse)
- **3** outcome studies with juvenile sexual offenders (MST-Problem Sexual Behavior)
- **4** outcome studies with youths presenting serious emotional and behavioral disturbance (MST-Psychiatric)
  - *2 independent*
- **3** outcome studies with maltreating families (MST-Child Abuse and Neglect)
- **6** outcome studies with adolescents with chronic health care conditions (MST-Health Care)
  - *5 independent*
- **19** implementation studies
  - *14 independent*
- **17** treatment process studies
  - *12 independent*
- **12** cost related studies
  - *6 independent*

More than 57,000 families included across all studies

74 outcome, implementation and benchmarking studies, yielding more than 140 peer reviewed journal articles

## MST research demonstrates

- Long-term re-arrest rates in studies with serious juvenile offenders reduced by median of **42%**
- Out-of-home placements, across all MST studies, reduced by a median of **54%**
- Improved family functioning
- Decreased substance use among youth
- Fewer mental-health problems for youth
- Higher levels of client satisfaction
- Considerable cost savings

## MST's positive results are long lasting

A 22-year, follow-up study by the Missouri Delinquency Project showed youths who received MST had:

- **36%** fewer felony arrests
- **75%** fewer violent felony arrests
- **33%** fewer days incarcerated
- **37%** fewer divorce, paternity and child support suits
- **56%** fewer felony arrests for siblings

## MST has proven the importance of treatment adherence and quality assurance

For example, 3 large multisite studies on the transport of MST involving more than 7,000 families (see studies #11, 48, and 64) as well as several other well-conducted studies (see studies #6, 8, 14, 17, 20, and 73) have concluded that:

- High therapist adherence improves youth and family outcomes.
- Ongoing quality assurance improves MST therapist and team adherence.

## MST has been effectively transported to community practice settings

- MST currently has more than **500** active programs.
- Adherence measures demonstrate that MST is being delivered with high levels of fidelity.
- Outcomes in community practice settings are similar to those of university-based trials.

## MST theory of change has been supported by treatment process research

- Mediation and qualitative studies have demonstrated the importance of improving family relations as the mechanism to reduce youth antisocial behavior.  
(See publications in Studies #8, #22, #26, #29, #31, #39 and #54)

# Published MST Outcome, Implementation and Benchmarking Studies

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<b>MST with Serious Juvenile Offenders</b>			
Study #	Authors	Design	Population
1	Henggeler et al. (1986)	QE	Delinquents and their families
3	Borduin, Henggeler, Blaske & Stein (1990)	RCT	Adolescent sexual offenders and their families
4	Henggeler, Melton & Smith (1992)	RCT	Violent and chronic juvenile offenders and their families
5	Borduin et al. (1995)	RCT	Violent and chronic juvenile offenders and their families
6	Henggeler, Melton et al. (1997)	RCT	Violent and chronic juvenile offenders and their families
8	Henggeler, Pickrel & Brondino (1999)	RCT	Substance-abusing and-dependent delinquents and their families
9	Borduin, Schaeffer & Heiblum (2009)	RCT	Juvenile sexual offenders and their families
16	Timmons-Mitchell et al. (2006)	RCT—Independent	Juvenile offenders (felons) at imminent risk of placement and their families
17	Henggeler et al. (2006)	RCT	Substance-abusing and-dependent juvenile offenders in Drug Court and their families
21	Curtis, Ronan, Heiblum & Crellin (2009)	BM—Independent	Juvenile offenders in New Zealand and their families
22	Letourneau et al. (2009)	RCT	Juvenile sexual offenders and their families
25	Glisson et al. (2010)	RCT/ CRO—Independent	Juvenile offenders and their families
26	Butler et al. (2011)	RCT—Independent	British juvenile offenders and their families
40	Fain et al. (2014)	QE—Independent	Chronic juvenile probationers
42	Baglivio et al. (2014)	QE—Independent	Juvenile offenders
49	Trupin et al. (2011)	QE—Independent	Incarcerated juvenile offenders and their families

**QE**=Quasi-experimental  
**RCT**=Randomized clinical trial  
**BM**=Benchmarking  
**IR**=Implementation Research  
**CRO**=Counties randomized to organizational intervention conditions, youth in counties to MST or usual care

<b>MST with Adolescents with Serious Conduct Problems</b>			
Study #	Authors	Design	Population
12	Ogden & Halliday-Boykins (2004)	RCT—Independent	Norwegian youth with serious antisocial behavior & their families
18	Ogden, Hagen & Andersen (2007)	BM—Independent	Norwegian youth with serious antisocial behavior & their families
20	Sundell et al. (2008)	RCT—Independent	Swedish youth with conduct disorder and their families
27	Boonstra et al. (2009)	BM—Independent	Dutch seriously antisocial & delinquent juveniles & their families
28	Boxer (2011)	Treatment process—Independent	Adolescents in MST Programs and their families
29	Asscher et al. (2013)	RCT—Independent	Dutch youth with severe & violent antisocial behavior & their families
31	Glebova et al. (2012)	Treatment process	Youth with serious antisocial behavior and their families treated by 51 MST therapists
34	Weiss et al. (2013)	RCT—Independent	Adolescents with serious conduct problems in self-contained classrooms and their families
37	Painter (2009)	QE—Independent	Youth with externalizing disorders
39	Gervan et al. (2012)	Treatment process—Independent	Youth who were physically aggressive or at imminent risk of placement and their families
47	Smith-Boydston et al. (2014)	QE—Independent	Youth with behavior problems
48	Lofholm et al. (2014)	QE—Independent	Swedish youth with severe behavior problems
51	Boxer et al. (2015)	Treatment process—Independent	Adolescents and their families in MST programs
54	Paradisopoulos et al. (2015)	Treatment process—Independent	British youths who completed MST
56	Barth et al. (2007)	QE—Independent	Behaviorally troubled youth and their families
63	Porter & Nuntavisit (2016)	BM—Independent	Australian youth with severe externalizing problems
65	Vidal et al. (2017)	QE—Independent	Youth at high risk of out-of-home placement
70	Fonagy et al. (2018)	RCT—Independent	British youth with antisocial behavior
71	Eeren et al. (2018)	QE—Independent	Dutch youth with antisocial behavior

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

### MST-Problem Sexual Behavior Studies (MST-PSB)

Study #	Authors	Design	Population
3	Borduin, Henggeler, Blaske & Stein (1990)	RCT	Adolescent sexual offenders and their families
9	Borduin, Schaeffer & Heiblum (2009)	RCT	Juvenile sexual offenders and their families
22	Letourneau et al. (2009)	RCT	Juvenile sexual offenders and their families

### Implementation Studies

Study #	Authors	Design	Population
10	Henggeler, Schoenwald, Liao, Letourneau & Edwards (2002)	Implementation research	Youth referred to standard MST and their families
11	Schoenwald, Sheidow, Letourneau & Liao (2003)	Implementation research	Youth referred to standard MST and their families
32	Ogden et al. (2012)	Implementation research—Independent	Norwegian therapists, supervisors, and agency leaders
35	Stout & Holleren (2013)	IR—Independent	MST and FFT programs
41	Westin et al. (2014)	IR—Independent	Youth referred to MST or FFT
44	Brunk et al. (2014)	Implementation research	Youth referred to standard MST
45	Hebert et al. (2014)	IR—Qualitative	Child protection team members
47	Smith-Boydston et al. (2014)	IR—QE—Independent	Youth in MST programs
48	Lofholm et al. (2014)	IR—Independent	Swedish youth in MST programs
50	Hendriks et al. (2014)	IR—Independent	MST and FFT programs
52	Welsh & Greenwood (2015)	IR—Qualitative—Independent	Stakeholders in 5 states
53	Lange et al. (2015)	IR—Independent	Dutch and US families
55	Pantoja (2015)	IR—Qualitative—Independent	Chilean government documents
60	Van der Rijken et al. (2016)	IR—QE—Independent	Dutch adolescents and families
61	Bruns et al. (2016)	IR—Independent	U.S. state mental health systems
64	Lange et al. (2017)	IR—Independent	Dutch adolescents with severe behavior problems
66	Ter Beek et al. (2017)	IR—Independent	Dutch boys with problem sexual behaviors
68	Swenson et al. (2018)	IR—Qualitative	Disadvantaged communities in Ghana & US
72	Heriot & Kissouri (2018)	IR—Independent	New South Wales government and MST-CAN and FFTCW sites

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

Study #	Authors	Design	Population
2	Brunk, Henggeler & Whelan (1987)	RCT	Maltreating families
24	Swenson et al. (2010)	RCT	Physically abused adolescents and their families
33	Schaeffer et al. (2013)	Pre-post and QE	Families with co-occurring parental substance abuse and child maltreatment

### MST-Psychiatric Studies

Study #	Authors	Design	Population
7	Henggeler, Rowland et al. (1999)	RCT	Youth presenting psychiatric emergencies and their families
15	Rowland et al. (2005)	RCT	Youth with serious emotional and behavioral disturbances and their families
19	Stambaugh et al. (2007)	QE—Independent	Youth with serious emotional disturbance and antisocial behavior at risk for out-of-home placement and their families
36	Tolman et al. (2008)	BM—Independent	Youth with serious emotional and behavioral disturbances

### MST-Health Care Studies (MST-HC)

Study #	Authors	Design	Population
13	Ellis et al. (2004)	RCT—Independent	Adolescents with poorly controlled type 1 diabetes and their families
14	Ellis, Frey et al. (2005a)	RCT—Independent	Inner city adolescents with chronically poorly controlled type 1 diabetes and their families
23	Naar-King et al. (2009)	RCT—Independent	African-American adolescents with primary obesity and their families
30	Ellis et al. (2012)	RCT—Independent	Adolescents with poorly controlled type 1 or type 2 diabetes and their families
38	Letourneau et al. (2012)	RCT	HIV infected youth with poor medication adherence
43	Naar-King et al. (2014)	RCT—Independent	African-American adolescents with poorly controlled asthma

Most of the research publications listed in this document can be requested online from MST Services (MSTS). To request a publication, simply send an email with the publication number in the subject line (e.g., FSRC #104, MSTS #1095, etc.) to [Network.Partner@mstservices.com](mailto:Network.Partner@mstservices.com). The publication number is listed after each citation in this document. The requested publication will be emailed directly to you.

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
<b>1</b> MST	Henggeler et al. (1986)	Quasi-experimental	Delinquents and their families N=80	Diversion services	Post treatment	Improved family relations; decreased behavior problems and association with deviant peers	Graduate students/ University

Henggeler, S. W., Rodick, J. D., Borduin, C. M., Hanson, C. L., Watson, S. M., & Urey, J. R. (1986). Multisystemic treatment of juvenile offenders: Effects on adolescent behavior and family interaction. *Developmental Psychology*, 22, 132 -141. **FSRC Publication #104**

<b>2</b> MST- Child Abuse and Neglect*	Brunk, Henggeler & Whelan (1987)	Randomized clinical trial	Maltreating families N=33	Behavioral parent training	Post treatment	Improved parent-child interactions	Graduate students/ University
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Brunk, M., Henggeler, S. W., & Whelan, J. P. (1987). A comparison of multisystemic therapy and parent training in the brief treatment of child abuse and neglect. *Journal of Consulting and Clinical Psychology*, 55, 311- 318. **FSRC Publication #103**

<b>3</b> MST- Problem Sexual Behavior	Borduin, Henggeler, Blaske & Stein (1990)	Randomized clinical trial	Adolescent sexual offenders and their families N=16	Individual counseling	3 years	Reduced sexual offending (93%) and other criminal offending (72%)	Graduate students/ University
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Borduin, C. M., Henggeler, S. W., Blaske, D. M. & Stein, R. (1990). Multisystemic treatment of adolescent sexual offenders. *International Journal of Offender Therapy and Comparative Criminology*, 35, 105 -114. **FSRC Publication #102**

<b>4</b> MST	Henggeler, Melton & Smith (1992)	Randomized clinical trial	Violent and chronic juvenile offenders and their families N=84	Usual community services — high rates in incarceration	59 weeks	Improved family relations and peer relations; decreased recidivism (43%) and out-of-home placement (64%)	Community therapists/ Community provider
	Henggeler et al. (1993)		Same sample		2.4 years	Decreased recidivism (24%) (doubled survival rate)	
	Henggeler et al. (1991)		Subsamples of present study N=47 and Borduin et al. (1995) N=200 (Study #5)		Post treatment for present study and 4-year follow-up for Borduin et al. (1995)	Reduced self-reported alcohol/marijuana use and fewer substancerelated arrests	

Henggeler, S. W., Melton, G. B., & Smith, L. A. (1992). Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology*, 60, 953 - 961. **FSRC Publication #4**

Henggeler, S. W., Melton, G. B., Smith, L. A., Schoenwald, S. K., & Hanley, J. H. (1993). Family preservation using multisystemic treatment: Long-term follow-up to a clinical trial with serious juvenile offenders. *Journal of Child and Family Studies*, 2, 283 - 293. **FSRC Publication #13**

Henggeler, S. W., Borduin, C. M., Melton, G. B., Mann, B. J., Smith, L., Hall, J. A., Cone, L., & Fucci, B. R. (1991). Effects of multisystemic therapy on drug use and abuse in serious juvenile offenders: A progress report from two outcome studies. *Family Dynamics of Addiction Quarterly*, 1, 40 - 51. **FSRC Publication #101**

# Published MST Outcome, Implementation and Benchmarking Studies

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Study #  
& Name

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MST

Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
Borduin et al. (1995)	Randomized clinical trial	Violent and chronic juvenile offenders and their families N=176	Individual counseling	4 years	Improved family relations, decreased psychiatric symptomatology for parents, youth behavior problems, and recidivism (63%)	Graduate students/ University
Schaeffer & Borduin (2005)		Same sample		13.7 years	Decreased rearrests (54%) and days incarcerated (57%)	
Klitz et al. (2010)	Cost-benefit analysis	Same sample	Individual counseling	13.7 years	Cost benefits ranged from \$75,110 to \$199,374 per MST participant	
Sawyer & Borduin (2011)		Same sample	Individual counseling	21.9 years	Decreased felony arrests (36%), violent felony arrests (75%), and days in adult confinement (33%)	
Wagner, Borduin et al. (2014)		Closest-in-age sibling N=110		25 years	Decreased felony (56%) and misdemeanor (38%) convictions as well as years sentenced to incarceration (27%) and probation (60%)	
Dopp, Borduin et al. (2014)	Cost-benefit analysis	Same sample N=176 and closest-in-age sibling N=110		25 years	Cost benefit of \$35,582 per juvenile offender and \$7,798 per sibling for families participating in MST	
Johnides et al. (2017)		Caregivers N=276		20.7 years	Decreased felonies (94%), misdemeanors (70%), days incarcerated (92%), and family-related civil suits (50%); favorable caregiver outcomes mediated by improved family relations during treatment	
Dopp, Borduin, Willroth, & Sorg (2017)	Cost-benefit analysis methodology	Samples from present study (#5) and Borduin et al. (2009; Study 9)		25 years for present study and 9 years for Borduin et al. (2009)	Cost benefit of \$35,582 per juvenile offender and \$7,798 per sibling for families participating in MST	

Borduin, C. M., Mann, B. J., Cone, L. T., Henggeler, S. W., Fucci, B. R., Blaske, D. M., & Williams, R. A. (1995). Multisystemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. *Journal of Consulting and Clinical Psychology*, 63, 569 – 578. **FSRC Publication #25**

Schaeffer, C. M., & Borduin, C. M. (2005). Long-term follow-up to a randomized clinical trial of multisystemic therapy with serious and violent juvenile offenders. *Journal of Consulting and Clinical Psychology*, 73(3), 445 – 453. **FSRC Publication #261**

Klitz, S. J., Borduin, C. M., & Schaeffer, C. M. (2010). Cost-benefit analysis of multisystemic therapy with serious and violent juvenile offenders. *Journal of Family Psychology*, 24, 657– 666. **FSRC Publication #383**

Sawyer, A.M., & Borduin, C.M. (2011). Effects of MST through midlife: A 21.9-year follow up to a randomized clinical trial with serious and violent juvenile offenders. *Journal of Consulting and Clinical Psychology*, 79, 643 – 652. **FSRC Publication #396**

Wagner, D. V., Borduin, C. M., Sawyer, A. M., & Dopp, A. R. (2014). Long-term prevention of criminality in siblings of serious and violent juvenile offenders: A 25-year follow-up to a randomized clinical trial of multisystemic therapy. *Journal of Consulting and Clinical Psychology*, 82, 492 – 499. **MSTS Publication #1091**



# Published MST Outcome, Implementation and Benchmarking Studies

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(continued from study #5)

Dopp, A. R., Borduin, C. M., Wagner, D. V., & Sawyer, A. M. (2014). The economic impact of multisystemic therapy through midlife: A cost-benefit analysis with serious juvenile offenders and their siblings. *Journal of Consulting and Clinical Psychology*, 82, 694–705. **MSTS Publication #1093**

Johnides, B. D., Borduin, C. M., Wagner, D. V., & Dopp, A. R. (2017). Effects of multisystemic therapy on caregivers of serious juvenile offenders: A 20-year followup to a randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 85, 323–334. **MSTS Publication #1563**

Dopp, A. R., Borduin, C. M., Willroth, E. C., & Sorg, A. A. (2017). Long-term economic benefits of psychological interventions for criminality: Comparing and integrating estimation methods. *Psychology, Public Policy, and Law*, 23, 312–323. **MSTS Publication #1557**

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (°) & Findings	Therapists/ Provider Organization
<b>6</b> MST	Henggeler, Melton et al. (1997)	Randomized clinical trial	Violent and chronic juvenile offenders and their families N=155	Juvenile probation services — high rates of incarceration	1.7 years	Decreased psychiatric symptomatology, incarceration (53%), and recidivism (26%, nonsignificant); treatment adherence linked with recidivism outcomes	Community therapists/ Community providers — two sites

Henggeler, S. W., Melton, G. B., Brondino, M. J., Scherer, D. G., & Hanley, J. H. (1997). Multisystemic therapy with violent and chronic juvenile offenders and their families: The role of treatment fidelity in successful dissemination. *Journal of Consulting and Clinical Psychology*, 65, 821–833. **FSRC Publication #55**

<b>7</b> MST- Psychiatric*	Henggeler, Rowland et al. (1999)	Randomized clinical trial	Youth presenting psychiatric emergencies and their families (preliminary sample) N=113	Psychiatric hospitalization	4 months post recruitment	Decreased externalizing problems (CBCL); improved family relations; increased school attendance; higher consumer satisfaction	Community therapists/ University
	Schoenwald et al. (2000)		Same preliminary sample		4 months post recruitment	73% reduction in days hospitalized; 49% reduction in days in other out-of-home placements	
	Henggeler, Rowland et al. (2003)		Final sample N=156		16 months post recruitment	Favorable 4-month outcomes, noted above, dissipated; 15% decrease in days in out-of-home placement (non-significant)	
	Huey et al. (2004)		Same final sample		16 months post recruitment	Decreased rates of attempted suicide	
	Sheidow et al. (2004)	Cost analysis	Same final sample		16 months post recruitment	MST cost savings at 4 months, but equivalent costs at 16 months	

# Published MST Outcome, Implementation and Benchmarking Studies

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Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
<b>7</b> MST- Psychiatric* (continued from previous page)	Halliday-Boykins et al. (2004)	Treatment process	Same final sample	Symptom trajectory groups	16 months post recruitment	Improved symptom groups associated with less suicidality, younger age, more youth hopelessness, and more caregiver empowerment	

Henggeler, S. W., Rowland, M. R., Randall, J., Ward, D., Pickrel, S. G., Cunningham, P. B., Miller, S. L., Edwards, J. E., Zealberg, J., Hand, L., & Santos, A. B. (1999). Home-based multisystemic therapy as an alternative to the hospitalization of youth in psychiatric crisis: Clinical outcomes. *Journal of the American Academy of Child & Adolescent Psychiatry*, 38, 1331-1339. **FSRC Publication #88**

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, 3-12. **FSRC Publication #64**

Henggeler, S. W., Rowland, M. D., Halliday-Boykins, C., Sheidow, A. J., Ward, D. M., Randall, J., Pickrel, S. G., Cunningham, P. B., & Edwards, J. (2003). One-year follow-up of multisystemic therapy as an alternative to the hospitalization of youths in psychiatric crisis. *Journal of the American Academy of Child & Adolescent Psychiatry*, 42, 543-551. **FSRC Publication #231**

Huey, S. J. Jr., Henggeler, S. W., Rowland, M. D., Halliday-Boykins, C. A., Cunningham, P. B., 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. **FSRC Publication #247**

Sheidow, A. J., Bradford, W. D., Henggeler, S. W., Rowland, M. D., Halliday-Boykins, C., Schoenwald, S. K., & Ward, D. M. (2004). Treatment costs for youths in psychiatric crisis: Multisystemic therapy versus hospitalization. *Psychiatric Services*, 55, 548-554. **FSRC Publication #253**

Halliday-Boykins, C. A., Henggeler, S. W., Rowland, M. D., & DeLucia, C. (2004). Heterogeneity in youth symptom trajectories following psychiatric crisis: Predictors and placement outcomes. *Journal of Consulting and Clinical Psychology*, 72, 993-1003. **MSTS Publication #1010**

<b>8</b> MST- Substance Abuse*	Henggeler, Pickrel & Brondino (1999)	Randomized clinical trial	Substance-abusing and -dependant delinquents and their families N=118	Usual community services	11 months post recruitment	Decreased drug use at post treatment, days in out-of-home placement (50%), and criminal arrests (19%, nonsignificant); treatment adherence linked with decreased drug use and other outcomes	Community therapists/ University
	Henggeler, Pickrel, Brondino & Crouch (1996)		Same sample		11 months post recruitment	98% rate of treatment completion for youth in MST	
	Schoenwald et al. (1996)	Cost analysis	Same sample		11 months post recruitment	Incremental cost of MST nearly offset by between-groups differences in out-of-home placement	
	Brown et al. (1999)		Same sample		6 months	Increased attendance in regular school settings	

# Published MST Outcome, Implementation and Benchmarking Studies

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Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
8 MST-Substance Abuse (continued from previous page)	Huey et al. (2000)	Treatment process	Same sample as well as sample from Study #6		Post treatment	MST theory of change supported: favorable changes in family relations and deviant peer associations mediated association between treatment adherence and decreased delinquency	
	Henggeler, Clingempeel et al. (2002)		Same sample		4 years	Decreased violent crime (74%); increased marijuana abstinence	

Henggeler, S. W., Pickrel, S. G., & Brondino, M. J. (1999). Multisystemic treatment of substance abusing and dependent delinquents: Outcomes, treatment fidelity, and transportability. *Mental Health Services Research*, 1, 171–184. **FSRC Publication #85**

Henggeler, S. W., Pickrel, S. G., Brondino, M. J., & Crouch, J. L. (1996). Eliminating (almost) treatment dropout of substance abusing or dependent delinquents through home-based multisystemic therapy. *American Journal of Psychiatry*, 153, 427– 428. **FSRC Publication #40**

Schoenwald, S. K., Ward, D. M., Henggeler, S. W., Pickrel, S. G., & Patel, H. (1996). MST treatment of substance abusing or dependent adolescent offenders: Costs of reducing incarceration, inpatient, and residential placement. *Journal of Child and Family Studies*, 5, 431– 444. **FSRC Publication #54**

Brown, T. L., Henggeler, S. W., Schoenwald, S. K., Brondino, M. J., & Pickrel, S. G. (1999). Multisystemic treatment of substance abusing and dependent juvenile delinquents: Effects on school attendance at posttreatment and 6-month follow-up. *Children's Services: Social Policy, Research, and Practice*, 2, 81– 93. **FSRC Publication #71**

Huey, S. J., Henggeler, S. W., Brondino, M. J., & Pickrel, S. G. (2000). Mechanisms of change in multisystemic therapy: Reducing delinquent behavior through therapist adherence and improved family and peer functioning. *Journal of Consulting and Clinical Psychology*, 68, 451– 467. **FSRC Publication #91**

Henggeler, S. W., Clingempeel, W. G., Brondino, M. J., & Pickrel, S. G. (2002). Four-year follow-up of multisystemic therapy with substance abusing and dependent juvenile offenders. *Journal of the American Academy of Child & Adolescent Psychiatry*, 41, 868 – 874. **FSRC Publication #223**

9 MST-Problem Sexual Behavior	Borduin, Schaeffer & Heiblum (2009)	Randomized clinical trial	Juvenile sexual offenders and their families N=48	Usual community services	9 years	Decreased behavior problems and symptoms; improved family relations, peer relations and academic performance; decreased caregiver distress, sex offender recidivism (83%), recidivism for other crimes (50%), and days incarcerated (80%)	Graduate students/ University
	Borduin & Dopp (2015)	Cost-benefit analysis			9 years	Cost benefit of \$343,455 per MST participant	

Borduin, C. M., Schaeffer, C. M., & Heiblum, N. (2009). A randomized clinical trial of multisystemic therapy with juvenile sexual offenders: Effects on youth social ecology and criminal activity. *Journal of Consulting and Clinical Psychology*, 77, 26 – 37. **FSRC Publication #335**

Borduin, C. M., & Dopp, A. R. (2015). Economic impact of multisystemic therapy with juvenile sexual offenders. *Journal of Family Psychology*, 29, 687– 696. **MST Publications #1107**

# Published MST Outcome, Implementation and Benchmarking Studies

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Study #  
& Name

10  
MST

Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
Henggeler, Schoenwald, Liao, Letourneau & Edwards (2002) Initial transportability study	Implementation research	Youth referred to standard MST and their families N=285	No comparison group	No follow-up	Supervisor behavior linked with therapist behavior	Community therapists/ Community providers — nine sites
Schoenwald, Halliday-Boykins & Henggeler (2003)		Same sample		No follow-up	Therapist adherence associated with certain family characteristics	

Henggeler, S. W., Schoenwald, S. K., Liao, J. G., Letourneau, E. J., & Edwards, D. L. (2002). Transporting efficacious treatments to field settings: The link between supervisory practices and therapist fidelity in MST programs. *Journal of Clinical Child and Adolescent Psychology*, 31, 155 –167. **FSRC Publication #215**

Schoenwald, S. K., Halliday-Boykins, C. A., & Henggeler, S. W. (2003). Client-level predictors of adherence to MST in community service settings. *Family Process*. 42, 345 – 359. **FSRC Publication #244**

11  
MST

Schoenwald, Sheidow, Letourneau & Liao (2003)	Implementation research	Youth referred to standard MST and their families Sub sample N=666	No comparison group	Post treatment	Decreased externalizing and internalizing symptoms, and improved functioning; therapist adherence predicted youth outcomes	Community therapists/ Community providers — 39 sites
Schoenwald, Sheidow & Letourneau (2004)		Same sample		Post treatment	Consultant adherence predicted therapist adherence and youth outcomes	
Halliday-Boykins, Schoenwald & Letourneau (2005)		Final sample N=1,979		6 months post treatment	Therapist-caregiver ethnic similarity predicted treatment length, discharge, and behavior problem reduction	
Schoenwald, Carter, Chapman & Sheidow (2008)		Same sample		1 year post treatment	Therapist adherence predicted youth behavior problem reduction	
Schoenwald, Sheidow & Chapman (2009)		Same sample		1 year post treatment	Two supervisor adherence scales predicted youth outcomes and one predicted therapist adherence	

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
11 MST (continued from previous page)	Schoenwald, Chapman, Sheidow & Carter (2009)		Same sample		4 years post treatment	Therapist adherence predicted lower rates of criminal charges	
	Schoenwald et al. (2012)		Same sample		1 year post treatment	Organizational effects on youth outcomes were limited	

Schoenwald, S. K., Sheidow, A.J., Letourneau, E.J., & Liao, J. G. (2003). Transportability of Multisystemic Therapy: Evidence for multi-level influences. *Mental Health Services Research*, 5, 223 – 239. **FSRC Publication #235**

Schoenwald, S. K., Sheidow, A. J., & Letourneau, E. J. (2004). Toward effective quality assurance in evidence-based practice: Links between expert consultation, therapist fidelity, and child outcomes. *Journal of Child and Adolescent Clinical Psychology*, 33, 94 –104. **FSRC Publication #242**

Halliday-Boykins, C.A., Schoenwald, S.K., & Letourneau, E.J. (2005). Caregiver-therapist ethnic similarity predicts youth outcomes from an empirically based treatment. *Journal of Consulting and Clinical Psychology*, 73, 808 – 818. **FSRC Publication #256**

Schoenwald, S. K., Carter, R. E., Chapman, J. E., & Sheidow, A. J. (2008). Therapist adherence and organizational effects on change in youth behavior problems one year after Multisystemic Therapy. *Administration and Policy in Mental Health and Mental Health Services Research*, 35, 379 – 394. **FSRC Publication #326**

Schoenwald, S. K., Sheidow, A. J., & Chapman, J. E. (2009). Clinical supervision in treatment transport: Effects on adherence and outcomes. *Journal of Consulting and Clinical Psychology*, 77, 410 – 421. **FSRC Publication #344**

Schoenwald, S.K., Chapman, J.E., Sheidow, A.J., & Carter, R.E. (2009). Long-term youth criminal outcomes in MST transport: The impact of therapist adherence and organizational climate and structure. *Journal of Clinical Child and Adolescent Psychology*, 38, 91–105. **FSRC Publication #337**

Schoenwald, S. K., Chapman, J. E., Henry, D. B., & Sheidow, A. J. (2012). Taking effective treatments to scale: Organizational effects on outcomes of multisystemic therapy for youths with co-occurring substance use. *Journal of Child & Adolescent Substance Abuse*, 21, 1– 31. **FSRC Publication #401**

12 MST	Ogden & Halliday-Boykins (2004)	Randomized clinical trial — Independent	Norwegian youth with serious antisocial behavior and their families N=100	Usual child welfare services	6 months post recruitment	Decreased externalizing and internalizing symptoms; decreased out-of-home placements (78%); increased social competence and consumer satisfaction; differential site effects	Community therapists/ Community providers — four sites
	Ogden & Hagen (2006)		Sample from three sites with fidelity		24 months post recruitment	Decreased internalizing symptoms and out-of-home placements (56%)	

Ogden, T., & Halliday-Boykins, C. A. (2004). Multisystemic treatment of antisocial adolescents in Norway: Replication of clinical outcomes outside of the US. *Child & Adolescent Mental Health*, 9(2), 77– 83. **FSRC Publication #248**

Ogden, T., & Hagen, K. A. (2006). Multisystemic treatment of serious behaviour problems in youth: Sustainability of effectiveness two years after intake. *Journal of Child and Adolescent Mental Health*, 11, 142 –149. **FSRC Publication #264**

13 MST- Health Care	Ellis et al. (2004)	Randomized clinical trial — Independent	Adolescents with poorly controlled type 1 diabetes and their families N=31	Standard diabetes care	6 months post recruitment	Improved diabetes adherence and metabolic control; decreased hospital admissions (100%)	Community therapists/ University
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Ellis, D. A., Naar-King, S., Frey, M. A., Templin, T., Rowland, M., & Greger, N. (2004). Use of Multisystemic Therapy to improve regimen adherence among adolescents with type 1 diabetes in poor metabolic control: A pilot investigation. *Journal of Clinical Psychology in Medical Settings*, 11, 315 – 324. **FSRC Publication #357**

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
14 MST- Health Care	Ellis, Frey et al. (2005a)	Randomized clinical trial — Independent	Inner city adolescents with chronically poorly controlled type 1 diabetes and their families N=127	Standard diabetes care	7 months post recruitment	Increased blood glucose testing; decreased inpatient admissions; improved metabolic control	Community therapists/ University
	Ellis, Naar-King et al. (2005)	Cost analysis	Subset of sample N=31		9 months post recruitment	Decreased medical charges and direct care costs for MST participants	
	Ellis, Frey et al. (2005b)		Same sample		7 months post recruitment	Decreased diabetes stress	
	Ellis, Templin et al. (2007)		Same sample		12 months post recruitment	Decreased inpatient admissions sustained (43%); favorable metabolic control outcomes dissipated	
	Naar-King et al. (2007)		Same sample		12 months post recruitment	Parents improved awareness of adolescent adherence	
	Ellis, Naar-King et al. (2007)		Subsample of youth in MST condition N=40		7 months post recruitment	Treatment fidelity to MST predicted adherence to diabetes care regimen	
	Ellis, Naar-King et al. (2008)		Same sample		24 months post recruitment	Decreased hospitalizations (47%)	

Ellis, D. A., Frey, M. A., Naar-King, S., Templin, T., Cunningham, P. B., & Cakan, N. (2005a). Use of multisystemic therapy to improve regimen adherence among adolescents with type 1 diabetes in chronic poor metabolic control: A randomized controlled trial. *Diabetes Care*, 28, 1604 –1610. **FSRC Publication #268**

Ellis, D. A., Naar-King, S., Frey, M. A., Templin, T., Rowland, M., & Cakan, N. (2005). Multisystemic treatment of poorly controlled type 1 diabetes: Effects on medical resource utilization. *Journal of Pediatric Psychology*, 30, 656 – 666. **FSRC Publication #278**

Ellis, D. A., Frey, M. A., Naar-King, S., Templin, T., Cunningham, P. B., & Cakan, N. (2005b). The effects of multisystemic therapy on diabetes stress in adolescents with chronically poorly controlled type 1 diabetes: Findings from a randomized controlled trial. *Pediatrics*, 116, e826 – e832. **FSRC Publication #267**

Ellis, D. A., Templin, T., Naar-King, S., Frey, M. A., Cunningham, P. B., Podolski, C., & Cakan, N. (2007). Multisystemic therapy for adolescents with poorly controlled type 1 diabetes: Stability of treatment effects in a randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 75, 168 –174. **FSRC Publication #297**

Naar-King, S., Ellis, D. A., Idalski, A., Frey, M. A., & Cunningham, P. B. (2007). Multisystemic therapy decreases parental overestimation of adolescent responsibility for type 1 diabetes management in urban youth. *Families, Systems, & Health*, 25, 178 –189. **FSRC Publication #343**

Ellis, D. A., Naar-King, S., Templin, T., Frey, M. A., & Cunningham, P. B. (2007). Improving health outcomes among youth with poorly controlled type 1 diabetes: The role of treatment fidelity in a randomized clinical trial of multisystemic therapy. *Journal of Family Psychology*, 21, 363 – 371. **FSRC Publication #304**

Ellis, D. A., Naar-King, S., Templin, T., Frey, M. A., Cunningham, P., Sheidow, A., Cakan, N., & Idalski, A. (2008). Multisystemic therapy for adolescents with poorly controlled type 1 diabetes: Reduced diabetic ketoacidosis admissions and related costs over 24 months. *Diabetes Care*, 31, 1746 –1747. **FSRC Publication #380**

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
15 MST- Psychiatric	Rowland et al. (2005)	Randomized clinical trial	Youth with serious emotional and behavioral disturbances and their families N=31	Hawaii's intensive Continuum of Care	6 months post recruitment	Decreased symptoms and arrests (34%, nonsignificant); increased days in regular school (42%, marginally significant); increased social support (marginally significant); decreased days in out-of-home placement (68%)	Community therapists/ Community provider

Rowland, M. R., 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, 13 – 23. **FSRC Publication #262**

16 MST	Timmons-Mitchell et al. (2006)	Randomized clinical trial — Independent	Juvenile offenders (felons) at imminent risk of placement and their families N=93	Usual community services	18 months post treatment	Improved youth functioning; decreased substance use problems; improved school functioning; decreased re-arrests (37%)	Community therapists/ Community provider
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Timmons-Mitchell, J., Bender, M. B., Kishna, M. A., & Mitchell, C. C. (2006). An independent effectiveness trial of multisystemic therapy with juvenile justice youth. *Journal of Clinical Child and Adolescent Psychology*, 35, 227– 236. **FSRC Publication #291**

17 MST- Substance Abuse	Henggeler et al. (2006)	Randomized clinical trial	Substance abusing and -dependent juvenile offenders in Drug Court and their families N=161	Four treatment conditions: Family Court with Usual Services, Drug Court (DC) with Usual Services, DC with MST, and DC with MST and contingency management	12 months post recruitment	MST enhanced substance use outcomes for alcohol and marijuana; Drug Court was more effective than Family Court at decreasing self-reported substance use and criminal activity	Community therapists/ University
	Rowland et al. (2008)		Nearest-age siblings N=70		18 months post recruitment	Evidence-based treatment decreased siblings' substance abuse	
	Sheidow et al. (2012)	Cost effectiveness analysis	128 youth from same sample		12 months post recruitment	Cost effectiveness tended to improve with increasing intensity of interventions	
	Sayegh et al. (2016)	Treatment process	Families in MST condition with necessary audiotaped therapy sessions N = 41		12 months post recruitment	Client resistance had a U shape during course of treatment for African American families, but an inverted U shape for European American families. Both shapes were associated with favorable outcomes.	



# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
<b>17</b> MST-Substance Abuse (continued from previous page)	Gillespie et al. (2017)	Treatment process and measurement instrument development	Families in MST conditions with necessary audiotaped therapy sessions N=40	No comparison	12 months post recruitment	An observational measure of treatment adherence was developed; high adherence was associated with decreased externalizing symptoms and alcohol consumption	
	Henggeler, S. W., Halliday-Boykins, C. A., Cunningham, P. B., Randall, J., Shapiro, S. B., & Chapman, J. E. (2006). Juvenile drug court: Enhancing outcomes by integrating evidence-based treatments. <i>Journal of Consulting and Clinical Psychology</i> , 74, 42 – 54. <b>FSRC Publication #270</b>						
	Rowland, M. R., Chapman, J. E., & Henggeler, S. W. (2008). Sibling outcomes from a randomized trial of evidence-based treatments with substance abusing juvenile offenders. <i>Journal of Child &amp; Adolescent Substance Abuse</i> , 17, 11– 26. <b>FSRC Publication #320</b>						
	Sheidow, A. J., Jayawardhana, J., Bradford, W. D., Henggeler, S. W., & Shapiro, S. B. (2012). Money matters: Cost effectiveness of juvenile drug court with and without evidence-based treatments. <i>Journal of Child &amp; Adolescent Substance Abuse</i> , 21, 69 – 90. <b>FSRC Publication #402</b>						
Sayegh, C. S., Hall-Clark, B. N., McDaniel, D. D., Halliday-Boykins, C. A., Cunningham, P. B., & Huey, S. J. Jr. (2016). A preliminary investigation of ethnic differences in resistance in multisystemic therapy. <i>Journal of Clinical Child &amp; Adolescent Psychology</i> , doi.org/10.1080/15374416.1157754 <b>MSTS Publication #1521</b>							
Gillespie, M. L., Huey, S. J., & Cunningham, P. B. (2017). Predictive validity of an observer-rated adherence protocol for multisystemic therapy with juvenile drug offenders. <i>Journal of Substance Abuse Treatment</i> , 76, 1–10. <b>MSTS Publication #1560</b>							
<b>18</b> MST	Ogden, Hagen & Andersen (2007)	Benchmarking—Independent	Norwegian youth with serious antisocial behavior and their families N=55	Study 12	Post treatment	Outcomes as favorable or better than Study 12	Community therapists/ Community provider
	Ogden, T., Hagen, K. A., & Andersen, O. (2007). Sustainability of the effectiveness of a programme of multisystemic treatment (MST) across participant groups in the second year of operation. <i>Journal of Children's Services</i> , 2, 4 –14. <b>FSRC Publication #312</b>						
<b>19</b> MST-Psychiatric	Stambaugh et al. (2007)	Quasi-experimental—Independent	Youth with serious emotional disturbance and antisocial behavior at risk for out-of-home placement and their families N=267	Wraparound	18 month follow-up	Decreased symptoms, improved functioning; decreased out-of-home placements (54%)	Community therapists/ Community provider
	Stambaugh, L. F., Mustillo, S. A., Burns, B. J., Stephens, R. L., Baxter, B., Edwards, D., & DeKraai, M. (2007). Outcomes from wraparound and multisystemic therapy in a center for mental health services system-of-care demonstration site. <i>Journal of Emotional and Behavioral Disorders</i> , 15, 143 –155. <b>FSRC Publication #303</b>						



# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
20 MST	Sundell et al. (2008)	Randomized clinical trial — Independent	Swedish youth with conduct disorder and their families N=156	Usual child welfare services in Sweden	7 months post recruitment	No outcomes favoring either treatment condition; low treatment fidelity; treatment fidelity associated with arrest	Community therapists/ Community providers — four sites
	Olsson (2009)	Cost analysis	Same sample		6 months post treatment	MST associated with net economic loss	
	Olsson (2010)	Cost analysis	Same sample		2 years post recruitment	MST associated with net economic loss	
	Gustle et al. (2007)	Implementation research, cross-sectional— Independent	Same sample plus youths and their mothers in FFT, MTFC, inpatient care, outpatient care, and normal comparison N=about 1500	FFT, MTFC, inpatient, outpatient, and normal comparison	Baseline comparison	Youths in MST, MTFC, and inpatient had similar symptom loads, and each was higher than FFT. Mothers in MST and MTFC had the highest symptom loads, and each was higher than FFT	Community therapists/ Community providers across numerous sites

Sundell, K., Hansson, K., Lofholm, C. A., Olsson, T., Gustle, L. H., & Kadesjo, C. (2008). The transportability of MST to Sweden: Short-term results from a randomized trial of conduct-disordered youths. *Journal of Family Psychology*, 22, 550 – 560. **FSRC Publication #330**

Olsson, T. M. (2009). Intervening in youth problem behavior in Sweden: a pragmatic cost analysis of MST from a randomized trial with conduct disordered youth. *International Journal of Social Welfare*, 19, 194 – 205. **FSRC Publication #417**

Olsson, T. M. (2010). MST with conduct disordered youth in Sweden: Costs and benefits after 2 years. *Research on Social Work Practice*, 20, 561– 571. **FSRC Publication #418**

Gustle, L. H., Hansson, K., Sundell, K., Lundh, L. G., & Lofholm, C. A. (2007). Blueprints in Sweden. Symptom load in Swedish adolescents in studies of functional family therapy (FFT), multisystemic therapy (MST) and multidimensional treatment foster care (MTFC). *Nordic Journal of Psychiatry*, 61, 443 – 451. **MSTS Publication #1020**

21 MST	Curtis, Ronan, Heiblum & Crellin (2009)	Benchmarking —Independent	Juvenile offenders in New Zealand and their families N=65	Other MST trials	12 months	Higher rate of treatment completion; effect sizes equivalent to other MST trials	Community therapists/ Community provider
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Curtis, N. M., Ronan, K. R., Heiblum, N., & Crellin, K. (2009). Dissemination and effectiveness of multisystemic treatment in New Zealand: A benchmarking study. *Journal of Family Psychology*, 23, 119 –129. **FSRC Publication #341**

22 MST- Problem Sexual Behavior	Letourneau et al. (2009)	Randomized clinical trial	Juvenile sexual offenders and their families N=127	Usual sex offender-specific treatment	12 months post recruitment	Decreased sexual behavior problems, delinquency, substance use, externalizing symptoms, and out-of-home placements (59%)	Community therapists/ Community provider
	Henggeler et al. (2009)	Treatment process	Same sample		12 month follow-up	MST theory of change supported: favorable outcomes mediated by improved parenting practices	

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
<b>22</b> MST- Problem Sexual Behavior (continued from previous page)	Letourneau et al. (2013)				2 years	Favorable results sustained for problem sexual behavior, self-reported delinquency, and out-of-home placements. Treatment effects not found for criminal recidivism	

Letourneau, E. J., Henggeler, S. W., Borduin, C. M., Schewe, P. A., McCart, M. R., Chapman, J. E., & Saldana, L. (2009). Multisystemic therapy for juvenile sexual offenders: 1-year results from a randomized effectiveness trial. *Journal of Family Psychology, 23*, 89–102. **FSRC Publication #336**

Henggeler, S. W., Letourneau, E. J., Chapman, J. E., Borduin, C. M., Schewe, P. A., & McCart, M. R. (2009). Mediators of change for multisystemic therapy with juvenile sexual offenders. *Journal of Consulting and Clinical Psychology, 77*, 451–462. **FSRC Publication #345**

Letourneau, E. J., Henggeler, S. W., McCart, M. R., Borduin, C. M., Schewe, P. A., & Armstrong, K. S. (2013). Two-year follow-up of a randomized effectiveness trial evaluating MST for juveniles who sexually offend. *Journal of Family Psychology, 27*, 978–985. **MSTS Publication #1081**

<b>23</b> MST- Health Care	Naar-King et al. (2009)	Randomized clinical trial — Independent	African-American adolescents with primary obesity and their families N=48	Family group weight-management program	7 months post recruitment	Decreased percent overweight, body fat and body mass index	Community therapists/ University
	Carcone, MacDonell et al. (2011)	Qualitative	Same sample: Adolescents in the MST condition		7 months post recruitment	Instilling hope associated with treatment engagement	

Naar-King, S., Ellis, D., Kolmodin, K., Cunningham, P., Jen, K. L. C., Saelens, B., & Brogan, K. (2009). A randomized pilot study of multisystemic therapy targeting obesity in African-American adolescents. *Journal of Adolescent Health, 45*, 417–419. **FSRC Publication #352**

Carcone, A. I., MacDonell, K. E., Naar-King, S., Ellis, D. E., Cunningham, P. B., & Kaljee, L. (2011). Treatment engagement in a weight-loss intervention for African-American adolescents and their families. *Children's Health Care, 40*, 1–21. **FSRC Publication #395**

<b>24</b> MST- Child Abuse and Neglect	Swenson et al. (2010)	Randomized clinical trial	Physically abused adolescents and their families N=86	Group-based parent training and enhanced outpatient treatment	16 months post recruitment	Decreased symptoms for youth and caregiver; improved parenting behaviors, increased social support; decreased out-of-home placements (63% fewer days)	Community therapists/ Community provider
	Dopp et al. (2018)	Cost-benefit analysis	Same sample		16 months post recruitment	Cost benefit of \$26,655 per family participating in MST	

Swenson, C. C., Schaeffer, C., Henggeler, S. W., Faldowski, R., & Mayhew, A. M. (2010). Multisystemic therapy for child abuse and neglect: A randomized effectiveness trial. *Journal of Family Psychology, 24*, 497–507. **FSRC Publication #382**

Dopp, A. R., Schaeffer, C. M., Swenson, C. C., & Powell, J. S. (2018). Economic impact of multisystemic therapy for child abuse and neglect. *Administration and Policy in Mental Health and Mental Health Services Research, 45*, 876–887. **MSTS Publication #1608**

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
25 MST	Glisson et al. (2010)	Randomized clinical trial/ CRO <sup>2</sup> — Independent	Juvenile offenders and their families N=615	Usual services	18 months post recruitment	Reduced out-of-home placements (53%); reduced symptoms (internalizing and externalizing combined) in sites with organizational intervention, but dissipated at 18-month follow-up	Community therapists/ Community providers

Glisson, C., Schoenwald, S. K., Hemmelgarn, A., Green, P., Dukes, D., Armstrong, K. S., & Chapman, J. E. (2010). Randomized trial of MST and ARC in a two-level EBT implementation strategy. *Journal of Consulting and Clinical Psychology, 78*, 537–550. **FSRC Publication #381**

26 MST	Butler et al. (2011)	Randomized clinical trial — Independent	British juvenile offenders and their families N=108	Tailored range of extensive and multi-component evidence-based interventions	18 months post recruitment	Reduced offenses (41%) and placements (41% during last 6 months); reduced self-reported and parent-reported delinquency; reduced psychopathic symptoms; improved parenting	Community therapists/ Community provider
	Tighe et al. (2012)	Qualitative research on treatment process — Independent	Subset of sample: N=21 families in MST condition			Findings support MST intervention foci and theory of change by emphasizing the impact of enhanced parenting skills and improved family relationships	
	Cary et al. (2013)	Cost-offset analysis	Subset of sample with full economic data N=91		18 months post recruitment	MST associated with cost savings related to crime reduction	

Butler, S., Baruch, G., Hickley, N., & Fonagy, P. (2011). A randomized controlled trial of MST and a statutory therapeutic intervention for young offenders. *Journal of the American Academy of Child & Adolescent Psychiatry, 50*, 1220–1235. **FSRC Publication #398**

Tighe, A., Pistrang, N., Casdagli, L., Baruch, G., & Butler, S. (2012). Multisystemic therapy for young offenders: Families' experiences of therapeutic processes and outcomes. *Journal of Family Psychology, 26*, 187–197. **FSRC Publication #408**

Cary, M., Butler, S., Baruch, G., Hickey, N., & Byford, S. (2013). Economic evaluation of multisystemic therapy for young people at risk for continuing criminal activity in the UK. *PLoS ONE 8(4)*: e61070. **MSTS Publication #1082**

27 MST	Boonstra et al. (2009)	Benchmarking —Independent	Dutch seriously antisocial and delinquent juveniles and their families N=194	Pretreatment base rate	2 years post treatment	Decreased recidivism, truancy, and out-of-home placements	Community therapists/ Community provider
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Boonstra, C., Jonkman, C., Soeteman, D., & van Busschbach, J. (2009). Multisystemic therapy for seriously antisocial and delinquent juveniles: two-year follow-up study. *Systemic Therapy, 21*, 94–104. **FSRC Publication #420**

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study #  
& Name

**28**  
MST

Publication

Design

Population  
(N)

Comparison

Follow-up

Treatment Effects (a)  
& Findings

Therapists/  
Provider  
Organization

Boxer  
(2011)

Treatment  
process —  
Independent

Adolescents in  
MST programs  
and their  
families  
N=1,341

No comparison  
condition

Post treatment

Treatment failure  
associated with negative  
peer involvement,  
especially gang affiliation

Community  
therapists/  
Community  
providers

Boxer, P. (2011). Negative peer involvement in multisystemic therapy for the treatment of youth problem behavior: Exploring outcome and process variables in "real-world" practice. *Journal of Clinical Child & Adolescent Psychology*, 40, 848 – 854. **FSRC Publication #419**

**29**  
MST

Asscher et al.  
(2013)

Randomized  
clinical trial —  
Independent

Dutch youth  
with severe and  
violent  
antisocial  
behavior and  
their families  
N=256

Usual services

6 months post  
recruitment

Decreased youth antisocial  
behavior; increased  
parental  
sense of competence,  
positive discipline,  
relationship quality,  
and youth association  
with prosocial peers

Community  
therapists/  
Community  
provider

Dekovic et al.  
(2012)

Treatment  
process —  
Independent

Same sample

6 months post  
recruitment

MST theory of change  
supported: Increased  
parental sense of  
competence predicted  
improved discipline which,  
in turn, predicted  
decreased youth antisocial  
behavior

Manders et al.  
(2013)

Treatment  
process —  
Independent

Same sample

6 months post  
recruitment

Favorable MST effects on  
externalizing problems  
were moderated  
(attenuated) for youth with  
high narcissism and  
callous traits

Asscher et al.  
(2014)

Treatment  
process —  
Independent

Same sample

1 year post  
recruitment  
for self-report  
measures,  
3 years post  
recruitment for  
recidivism

Further decreases in  
externalizing symptoms  
and self-reported  
offenses at 1 year  
follow-up, but no effects  
on recidivism at 3 years

Asscher,  
Dekovic, Van  
den Akker,  
Manders  
et al. (2016)

Treatment  
process —  
Independent

Same sample

6 months and  
3 years post  
recruitment

6-month outcomes  
for antisocial behavior  
attenuated (moderated)  
by youth impulsivity and  
low agreeableness

Asscher,  
Dekovic, Van  
den Akker,  
Prins, &  
Van der Laan  
(2018)

Treatment  
process —  
Independent

Same sample

Pre-post  
treatment  
with monthly  
assessments

MST equally effective  
with extremely violent as  
with not extremely violent  
youth; initial deterioration  
in behavior for extremely  
violent youth followed  
by larger decrease in  
externalizing problems

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
<b>29</b> MST (continued from previous page)	Mertens et al. (2017)	Treatment process — Independent	MST participants in same sample N=147		Pre-post treatment with monthly assessments	More favorable treatment response associated with greater youth involvement with prosocial peers and parental sense of parenting competence	

Asscher, J. J., Dekovic, M., Manders, W. A., van der Laan, P. H., & Prins, P. J. M. (2013). A randomized controlled trial of the effectiveness of multisystemic therapy in the Netherlands: Post-treatment changes and moderator effects. *Journal of Experimental Criminology*, 9, 169–187. **MSTS Publication #1083**

Dekovic, M., Asscher, J. J., Manders, W. A., Prins, P. J. M., & Van der Laan, P. (2012). Within-intervention change: Mediators of intervention effects during multisystemic therapy. *Journal of Consulting and Clinical Psychology*, 80, 574–587. **FSRC Publication #413**

Manders, W. A., Dekovic, M., Asscher, J. J., van der Laan, P. H., & Prins, P. J. M. (2013). Psychopathy as predictor and moderator of multisystemic therapy outcomes among adolescents treated for antisocial behavior. *Journal of Abnormal Child Psychology*, 41, 1121–1132. **MSTS Publication #1084**

Asscher, J. J., Dekovic, M., Manders, W., van der Laan, P. H., Prins, P. J. M., & van Arum, S. (2014). Sustainability of the effects of multisystemic therapy for juvenile delinquents in the Netherlands: effects on delinquency and recidivism. *Journal of Experimental Criminology*, 10, 227–243. **MSTS Publication #1092**

Asscher, J. J., Dekovic, M., van den Akker, A. L., Manders, W. A., Prins, P. J. M., van der Laan, P. H., & Prinzie, P. (2016). Do personality traits affect responsiveness of juvenile delinquents to treatment? *Journal of Research in Personality*, 63, 44–50. **MSTS Publication #1513**

Asscher, J. J., Dekovic, M., Van den Akker, A. L., Prins, P. J. M., & Van der Laan, P. H. (2018). Do extremely violent juveniles respond differently to treatment? *International Journal of Offender Therapy and Comparative Criminology*, 62, 958-977. **MSTS Publication #1614**

Mertens, E. C. A., Dekovic, M., Asscher, J. J., & Manders, W. A. (2017). Heterogeneity in response during multisystemic therapy: Exploring subgroups and predictors. *Journal of Abnormal Child Psychology*, 45, 1285–1295. **MSTS Publication #1568**

<b>30</b> MST-Health Care	Ellis et al. (2012)	Randomized clinical trial — Independent	Adolescents with poorly controlled type 1 or type 2 diabetes and their families N=146	Standard medical care with telephone support	12 months post recruitment	Improved metabolic control; improved youth adherence to diabetes care regimen based on parental report	Community therapists/ University
	Carcone et al. (2015)		Primary caregivers of the adolescents		1 month post treatment	MST improved the families' relationship with their diabetes care providers	

Ellis, D. A., Naar-King, S., Chen, X., Moltz, K., Cunningham, P. B., & Idalski-Carcone, A. (2012). Multisystemic therapy compared to telephone support for youth with poorly controlled diabetes: Findings from a randomized controlled trial. *Annals of Behavioral Medicine*, 44, 207–215. **FSRC Publication #412**

Carcone, A. I., Ellis, D. A., Chen, X., Naar, S., Cunningham, P. B., & Moltz, K. (2015). Multisystemic therapy improves the patient-provider relationship in families of adolescents with poorly controlled insulin dependent diabetes. *Journal of Clinical Psychology in Medical Settings*, 22, 169–178. **FSRC Publication #469**

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study #  
& Name

31  
MST

Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
Glebova et al. (2012)	Treatment process	Youth with serious antisocial behavior and their families treated by 51 MST therapists N=185	No comparison condition		Low therapist feelings of comfort/safety associated with low therapeutic alliance, working in low-income neighborhoods, and having less favorable attitudes toward MST	Community therapists/ Community providers
Schechter et al. (2012)		Subsample of male adolescents with serious antisocial behavior N=120			Complex associations between youth stress, cortisol, and externalizing behaviors	
Ryan, Brennan et al. (2013)		Subsample of male adolescents with serious antisocial behavior N=112		Post treatment	High testosterone and high deviant peer affiliation predicted less of a decline in aggression and delinquency during treatment	
Ryan, Cunningham et al. (2013)		Families treated by 52 MST therapists N=185		Post treatment	Neither problem severity, race/ethnicity, nor their interaction predicted therapist adherence or family-therapist bond beyond chance probability of occurrence	
Tiernan et al. (2014)		Families of adolescents with serious antisocial behavior N=185		3, 10, and 16 weeks post intake	Decreased antisocial behavior by 10 weeks post intake; decreased antisocial behavior associated with absence of drug use, high parental monitoring, and low association with deviant peers	
Robinson et al. (2014)		Same sample		Post treatment	Improved parental monitoring associated with decreased externalizing behavior in better neighborhoods, but not in worse neighborhoods	
Crandal et al. (2015)	Measurement instrument development	Subsample of 163 youths and families and the 44 therapists serving them		Mid-treatment and post treatment	A 14-item questionnaire that assessed therapist ratings of youth behavior outcomes and caregiver parenting outcomes was developed and validated	

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
31 MST (continued from previous page)	Winiarski et al. (2017)	Treatment process	Subsample of all nonpregnant adolescents N=180		3, 9, and 19 weeks post intake	For girls, but not boys, increasing emotional regulation was associated with successful treatment outcomes	
	Glebova et al. (2018)	Treatment process	Subsample of 164 youths and families and 52 therapists serving them		Mid treatment and post treatment	Limited association between caregivers' and youths' emotional bonds with therapists and treatment outcomes, although caregiver-therapist bond predicted improved parental monitoring	

Glebova, T., Foster, S. L., Cunningham, P. B., Brennan, P. A., & Whitmore, E. (2012). Examining therapist comfort in delivering family therapy in home and community settings: Development and evaluation of the therapist comfort scale. *Psychotherapy, 49*, 52 – 61. **FSRC Publication #406**

Schechter, J. C., Brennan, P. A., Cunningham, P. B., Foster, S. L., & Whitmore, E. (2012). Stress, cortisol, and externalizing behavior in adolescent males: An examination in the context of multisystemic therapy. *Journal of Abnormal Child Psychology, 40*, 913 – 922. **FSRC Publication #405**

Ryan, S. R., Brennan, P. A., Cunningham, P. B., Foster, S. L., Brock, R. L., & Whitmore, E. (2013). Biosocial processes predicting multisystemic therapy treatment response. *Biological Psychology, 92*, 373 – 379. **FSRC Publication #453**

Ryan, S. R., Cunningham, P. B., Foster, S. L., Brennan, P. A., Brock, R. L., & Whitmore, E. (2013). Predictors of therapist adherence and emotional bond in multisystemic therapy: Testing ethnicity as a moderator. *Journal of Child and Family Studies, 22*, 122 –136. **FSRC Publication #455**

Tiernan, K., Foster, S. L., Cunningham, P. B., Brennan, P., & Whitmore, E. (2015). Predicting early positive change in multisystemic therapy with youth exhibiting antisocial behaviors. *Psychotherapy, 52*, 93 –102. **FSRC Publication #466**

Robinson, B. A., Winiarski, D. A., Brennan, P. A., Foster, S. L., Cunningham, P. B., & Whitmore, E. A. (2015). Social context, parental monitoring, and multisystemic therapy outcomes. *Psychotherapy, 52*, 103 –110. **FSRC Publication #468**

Crandal, B. R., Foster, S. L., Chapman, J. E., Cunningham, P. B., Brennan, P. A., & Whitmore, E. A. (2015). Therapist perception of treatment outcome: Evaluating treatment outcomes among youth with antisocial behavior problems. *Psychological Assessment, 27*, 710 –725. **MSTS Publication #1201**

Winiarski, D. A., Schechter, J. C., Brennan, P. A., Foster, S. L., Cunningham, P. B., & Whitmore, E. A. (2017). Adolescent physiological and behavioral patterns of emotion dysregulation predict multisystemic therapy response. *Journal of Emotional and Behavioral Disorders, 25*, 131–142. **MSTS Publication #1574**

Glebova, T., Foster, S. L., Cunningham, P. B., Brennan, P. A., & Whitmore, E. A. (2018). Therapists' and clients' perceptions of bonding as predictors of outcome in multisystemic therapy. *Family Process, 57*(4), 867-883. **MSTS Publication #1576**

32 MST	Ogden et al. (2012)	Implementation research — Independent	Norwegian therapists, supervisors and agency leaders N=218	Oregon model of Parent Management Training (PMTO)	10 years after nationwide introduction of MST and PMTO programs	MST evidenced superior recruitment, supervision, performance assessment, data systems, administrative support, systems interventions and leadership	Community professionals/ Community providers
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Ogden, T., Bjernebekk, G., Kjobli, J., Patras, J., Christiansen, T., Taraldsen, K., & Tollefsen, N. (2012). Measurement of implementation components ten years after a nationwide introduction of empirically supported programs – a pilot study. *Implementation Science, 7*:49. **FSRC Publication #416**



# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
<b>33</b> MST-CAN Building Stronger Families Adaptation	Schaeffer et al. (2013)	Single group pre-post; and quasi-experimental	Families with co-occurring parental substance abuse and child maltreatment N=43	Comprehensive community treatment	Post treatment for single group design; 24 months for quasi-experimental design	Post treatment: Mothers reduced substance use and depression, improved parenting; youth decreased anxiety. 24-month follow-up: decreased maltreatment and time youth spent in out-of-home placement	Community therapists/ Community provider

Schaeffer, C. M., Swenson, C. C., Tuerk, E. H., & Henggeler, S. W. (2013). Comprehensive treatment for co-occurring child maltreatment and parental substance abuse: Outcomes from a 24-month pilot study of the MST-Building Stronger Families program. *Child Abuse and Neglect*, 37(8), 596 – 607. **FSRC Publication #462**

<b>34</b> MST	Weiss et al. (2013)	Randomized clinical trial — Independent	Adolescents with serious conduct problems in self-contained classrooms and their families N=164	Usual services	18 months post recruitment for self-report measures and 2.5 years for arrests	Reduced externalizing problems but not arrests, decreased school absences, improved parenting and parental mental health symptoms	Community therapists/ University
	Weiss et al. (2014)		Same sample			Favorable MST effects were larger among families with higher levels of positive family relationships and parental mental health as well as with families high in ineffective parenting	

Weiss, B., Han, S., Harris, V., Catron, T., Ngo, V. K., Caron, A., Gallop, R., & Guth, C. (2013). An independent randomized clinical trial of multisystemic therapy with non-court-referred adolescents with serious conduct problems. *Journal of Consulting and Clinical Psychology*, 81, 1027–1039. **MSTS Publication #1085**

Weiss, B., Han, S. S., Tran, N. T., Gallop, R., & Ngo, V. K. (2015). Test of “facilitation” vs. “proximal process” moderator models for the effects of multisystemic therapy on adolescents with severe conduct problems. *Journal of Abnormal Child Psychology*, 43, 971– 983. **MSTS Publication #1089**

<b>35</b> MST	Stout & Holleran (2013)	Implementation research — Independent	Youth recommended for out-of-home placement statewide	Time series analysis	Data examined from 2005 to 2011	Addition of MST and FFT programs associated with reduced out-ofhome placement and estimated \$18,000,000 in annual cost savings	Community therapists/ Community providers
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Stout, B. D., & Holleran, D. (2013). The impact of evidence-based practices on requests for out-of-home placements in the context of system reform. *Journal of Child and Family Studies*, 22, 311– 321. **MSTS Publication #1080**



# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
36 MST	Tolman et al. (2008)	Benchmarking —Independent	Youth with serious emotional and behavioral disturbances and their families in the state system of care N=254	Four outcome studies conducted by MST developers	Post treatment	Outcomes almost as favorable as those achieved by MST developers; therapist rated outcomes validated as indicators of treatment success	Community therapists/ Community providers

Tolman, R. T., Mueller, C. W., Daleiden, E. L., Stumpf, R. E., & Pestle, S. L. (2008). Outcomes from multisystemic therapy in a statewide system of care. *Journal of Child and Family Studies*, 17, 894 – 908. **MSTS Publication #1040**

37 MST	Painter (2009)	Quasi-experimental —Independent	Youth with externalizing disorders and their families N=174	Case management and Barkley family skills training	Post treatment	Improvement across a combination of life domains, decreased mental health symptoms, less juvenile justice involvement	Community therapists/ Community provider
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Painter, K. (2009). Multisystemic therapy as community-based treatment for youth with severe emotional disturbance. *Research on Social Work Practice*, 19, 314 – 324. **MSTS Publication #1045**

38 MST-Health Care	Letourneau et al. (2012)	Randomized clinical trial	HIV infected youth with medication adherence problems and their families N=34	Usual medical care including motivational interviewing	9 months post baseline	Greater reduction in viral load (improved health)	Community therapists/ University
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Letourneau, E. J., Ellis, D. A., Naar-King, S., Chapman, J. E., Cunningham, P. B., & Fowler, S. (2013). Multisystemic therapy for poorly adherent youth with HIV: Results from a pilot randomized controlled trial. *AIDS Care*, 25, 507– 514. **FSRC Publication #464**

39 MST	Gervan et al. (2012)	Treatment process — Independent	Youth who were physically aggressive or at imminent risk of placement and their families N=99	No comparison group	Post treatment	Paternal participation in treatment was associated with greater decreases in youth externalizing and internalizing symptoms	Community therapists/ Community providers
	Granic et al. (2012)		Families of youth who were physically aggressive or at imminent risk of placement and their families N=89 and their therapists N=21		Mid treatment and post treatment	Therapeutic alliance impacted decreased adolescent externalizing behavior, in part, through reducing mothers' depressive symptoms	

Gervan, S., Granic, I., Solomon, T., Blokland, K., & Ferguson, B. (2012). Paternal involvement in multisystemic therapy: Effects on adolescent outcomes and maternal depression. *Journal of Adolescence*, 35, 743 – 751. **MSTS Publication #1070**

Granic, I., Otten, R., Blokland, K., Solomon, T., Engels, R. C. M. E., & Ferguson, B. (2012). Maternal depression mediates the link between therapeutic alliance and improvements in adolescent externalizing behavior. *Journal of Family Psychology*, 26, 880 – 885. **MSTS Publication #1071**

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
40 MST	Fain et al. (2014)	Quasi-experimental and single group pre-post — Independent	Chronic juvenile probationers and their families N=1,137 (74% Hispanic, 20% Black)	Usual services	6 months post recruitment	Quasi-experimental: Decreased arrests (36%) and incarceration (58%) and increased completion of probation for Hispanic youth, but not for Black youth. Pre-post: Improved parenting skills, family relations, social supports, educational/vocational success, and involvement with prosocial peers for MST participants	Community therapists/ Community providers

Fain, T., Greathouse, S. M., Turner, S. F., & Weinberg, H. D. (2014). Effectiveness of multisystemic therapy for minority youth: Outcomes over 8 years in Los Angeles County. *OJJDP Journal of Juvenile Justice*, 3, 24 – 37. **MSTS Publication #1099**

41 MST	Westin et al. (2014)	Implementation research — Independent	Youth referred to either MST or FFT and their families statewide N=2,054	FFT	Post treatment	Waiting time associated with treatment refusal for MST and FFT; African-American youth were more likely to drop out of treatment from FFT	Community therapists/ Community providers
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Westin, A. M. L., Barksdale, C. L., & Stephan, S. H. (2014). The effect of waiting time on youth engagement to evidence based treatments. *Community Mental Health Journal*, 50, 221– 228. **MSTS Publication #1088**

42 MST	Baglivio et al. (2014)	Quasi-experimental —Independent	Youth (2/3 low risk) and their families referred to MST or FFT programs N=2,203	No comparison group	Post treatment	Paternal participation in treatment was associated with greater decreases in youth externalizing and internalizing symptoms	Community therapists/ Community providers
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Baglivio, M. T., Jackowski, K., Greenwald, M. A., & Wolff, K. T. (2014). Comparison of multisystemic therapy and functional family therapy effectiveness: A multiyear statewide propensity score matching analysis of juvenile offenders. *Criminal Justice and Behavior*, 41, 1033 –1056. **MSTS Publication #1097**

43 MST-Health Care	Naar-King et al. (2014)	Randomized clinical trial — Independent	African-American adolescents with poorly controlled asthma and their families N=167	Home-based supportive counseling	Post treatment	Improved asthma medication adherence and lung functioning	Community therapists/ University
	Ellis et al. (2014)		Same sample		Post treatment	Increased parental beliefs in the value of asthma-related positive parenting behaviors and greater parental self-efficacy for these behaviors	

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
<b>43</b> MST-Health Care (continued from previous page)	Ellis et al. (2016)		Same sample		12 months post recruitment	Increased asthma knowledge and skill using controller device; improved illness management was mediated by these increases	
	Naar-King, S., Ellis, D., King, P. S., Cunningham, P., Secord, E., Bruzzese, J-M, & Templin, T. (2014). Multisystemic therapy for high-risk African-American adolescents with asthma: A randomized clinical trial. <i>Journal of Consulting and Clinical Psychology</i> , 82, 536 – 545. <b>MSTS Publication #1094</b>						
	Ellis, D. A., King, P., Naar-King, S., Lam, P., Cunningham, P. B., & Secord, E. (2014). Effects of family treatment on parenting beliefs among caregivers of youth with poorly controlled asthma. <i>Journal of Developmental and Behavioral Pediatrics</i> , 35, 486 – 493. <b>MSTS Publication #1098</b>						
Ellis, D. A., King, P., & Naar-King, S. (2016). Mediators of treatment effects in a randomized clinical trial of multisystemic therapy-health care in adolescents with poorly controlled asthma: Disease knowledge and device use skills. <i>Journal of Pediatric Psychology</i> , 41, 522 – 530. <b>MSTS Publication #1512</b>							
<b>44</b> MST	Brunk et al. (2014)	Implementation research	MST teams N=496 and 25,114 families and youth served by these teams	No comparison group	Post treatment for youth arrests and 2 years for team closure	Higher overall program fidelity associated with fewer youth arrests and team closures	Community therapists/ Community providers
Brunk, M. A., Chapman, J. E., & Schoenwald, S. K. (2014). Defining and evaluating fidelity at the program level in psychosocial treatments. <i>Zeitschrift fur Psychologie</i> , 222, 22 – 29. <b>MSTS Publication #1090</b>							
<b>45</b> MST-Child Abuse and Neglect	Hebert et al. (2014)	Implementation research — Qualitative	Australian child protection team N=5	No comparison group	Interviews at conclusion of 3-year pilot project	Strong endorsement of MST-CAN clinical emphases with families and collaborative approach with child protection	Community professionals/ Community providers
Hebert, S., Bor, W., Swenson, C. C., & Boyle, C. (2014). Improving collaboration: a qualitative assessment of inter-agency collaboration between a pilot multisystemic therapy child abuse and neglect (MST-CAN) program and a child protection team. <i>Australasian Psychiatry</i> , 22, 370 – 373. <b>FSRC Publication #465</b>							
<b>46</b> MST	Curtis et al. (2004)	Meta-analysis	7 MST outcome studies including 708 participants			The overall average effect of MST was significant across different samples and measures; efficacy studies had larger effects than effectiveness studies	

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
<b>46</b> MST (continued from previous page)	Van der Stouwe et al. (2014)	Meta-analysis —Independent	22 MST outcome studies including 4,066 juveniles and their families			Significant treatment effects on delinquency, psychopathology, substance use, family functioning, peer relations, and out-of-home placements; efficacy studies had larger effects than effectiveness studies	

Curtis, N. M., Ronan, K. R., & Borduin, C. M. (2004). Multisystemic treatment: A meta-analysis of outcome studies. *Journal of Family Psychology*, 18, 411–419. **FSRC Publication #255**

Van der Stouwe, T., Asscher, J. J., Stams, G. J. J. M., Dekovic, M., & Van der Laan, P. H. (2014). The effectiveness of multisystemic therapy (MST): A meta-analysis. *Clinical Psychology Review*, 34, 468–481. **MSTS Publication #1100**

<b>47</b> MST	Smith-Boydston et al. (2014)	Implementation research — Quasi-experimental —Independent	Youth with behavior problems and their families in MST programs N=147	MST program after quality assurance from MST Services is removed	1-year post treatment	Removal of oversight from MST Services resulted in program drift (e.g., 50% fewer family contacts) and previously favorable juvenile justice outcomes no longer being achieved	Community therapists/ Community provider
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Smith-Boydston, J. M., Holtzman, R. J., & Roberts, M. C. (2014). Transportability of multisystemic therapy to community settings: Can a program sustain outcomes without MST Services oversight? *Child Youth Care Forum*, 43, 593–605. **MSTS Publication #1101**

<b>48</b> MST	Lofholm et al. (2014)	Implementation research — Independent	Swedish youth with severe behavior problems and their families N=973 and therapists N=68	Early MST programs compared with later MST programs	Post treatment outcomes examined 2003 – 2009	High adherence associated with more favorable youth outcomes; greater therapist experience associated with low out-of-home placements; years of team activity predicted better youth outcomes; worst outcomes occurred during MST start up years, when Sundell et al. (2008, #20) randomized trial was conducted	Community professionals/ Community providers
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Lofholm, C. A., Eichas, K., & Sundell, K. (2014). The Swedish implementation of multisystemic therapy for adolescents: Does treatment experience predict treatment adherence. *Journal of Clinical Child & Adolescent Psychology*, 43, 643–655. **MSTS Publication #1095**

<b>49</b> MST-Family Integrated Transitions	Trupin et al. (2011)	Quasi-experimental —Independent	Incarcerated youths with co-occurring substance use and mental health disorders transitioning to home N=274	Treatment as usual	3 years	30% reduction in felony convictions	Community therapists/ University
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Trupin, E. J., Kerns, S. E. U., Walker, S. C. DeRobertis, M. T., & Stewart, D. G. (2011). Family integrated transitions: A promising program for juvenile offenders with cooccurring disorders. *Journal of Child & Adolescent Substance Abuse*, 20, 421–436. **FSRC Publication #399**

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
50 MST	Hendriks et al. (2014)	Implementation research — Independent	Dutch families referred to either MST or FFT N=1098	FFT	Baseline comparison	MST, the more intensive treatment, was used for youths most at risk	Community professionals/ Community providers

Hendriks, M. E. D., Lange, A. M. C., Boonstoppel-Boender, M., & van der Rijken, R. E. A. (2014). Functional family therapy and multisystemic therapy: a comparison of target populations. *Orthopedagogiek: Onderzoek en Praktijk*, 53, 355 – 366. **MSTS Publication #1109**

51 MST	Boxer et al. (2015)	Treatment process — Independent	Adolescents and their families in MST programs N=421	No comparison group	Post treatment	Gang involvement, especially current gang membership, significantly reduced successful treatment completion	Community therapists/ Community providers
	Boxer et al. (2017)		Same sample		12 months post treatment	MST was as effective in reducing arrests for gang-involved youth as for nongang involved counterparts	

Boxer, P., Kubik, J., Ostermann, M., & Veysey, B. (2015). Gang involvement moderates the effectiveness of evidence-based intervention for justice-involved youth. *Children and Youth Services Review*, 52, 26 – 33. **MSTS Publication #1103**

Boxer, P., Docherty, M., Ostermann, M., Kubik, J., & Veysey, B. (2017). Effectiveness of multisystemic therapy for gang-involved youth offenders: One year follow-up analysis of recidivism outcomes. *Children and Youth Services Review*, 73, 107–112. **MSTS Publication #1554**

52 MST	Welsh & Greenwood (2015)	Qualitative implementation research — Independent	Key stakeholders in the 5 states with the most MST, FFT, and MTFC teams N=59	State-by-state availability of MST, FFT, and MTFC teams per million population	Data examined 2011	States making the most progress in implementing MST, FFT, and MTFC included structured involvement of all stakeholders, effective champions, special funding and pilot testing of new programs, and technical assistance for adopters	Community professionals/ Community providers
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Welsh, B. C., & Greenwood, P. W. (2015). Making it happen: State progress in implementing evidence-based programs for delinquent youth. *Youth Violence and Juvenile Justice*, 13, 243 – 257. **MSTS Publication #1204**

53 MST	Lange et al. (2015)	Implementation research -  <b>Study 1:</b> Cross sectional  <b>Study 2:</b> Experimental — Independent	<b>Study 1:</b> 580 Dutch families providing TAM-Rs and the US TAM-R data base  <b>Study 2:</b> 237 Dutch families providing TAM-Rs and the US TAM-R data base	<b>Study 1:</b> Dutch TAM-R vs. US TAM-R  <b>Study 2:</b> Dutch TAM-R vs. two adaptations of the Dutch TAM-R vs. US TAM-R	TAM-Rs collected during treatment	<b>Study 1:</b> US TAM-R scores were more positively skewed than Dutch counterparts  <b>Study 2:</b> Adaptations of item translations and response categories did not improve equivalence between the Dutch and US TAM-Rs	Community therapists/ Community providers
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Lange, A. M. C., Scholte, R. H. J., van Geffen, W., Timman, R., Busschbach, J. J. V., & van der Rijken, R. E. A. (2016). The lack of cross-national equivalence of a therapist adherence measure (TAM-R) in multisystemic therapy (MST). *European Journal of Psychological Assessment*, 32, 312 – 325. **MSTS Publication #1507**

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
54 MST	Paradisopoulos et al. (2015)	Qualitative treatment process research — Independent	British youths who completed MST N=8	No comparison group	From 5 – 21 months post treatment	Sustained positive change was attributed to the therapeutic alliance, improved awareness of self and others, removing negative peer influences, and actively building a positive future	Community professionals/ Community providers
	Kaur et al. (2017)		Caregivers of British youths who completed MST N=12			Sustained change attributed to the therapeutic alliance, shifting to a more interpersonal perspective, and increasing family resilience in facing difficulties	

Paradisopoulos, D., Pote, H., Fox, S., & Kaur, P. (2015). Developing a model of sustained change following multisystemic therapy: young people's perspectives. *Journal of Family Therapy*, 37, 471– 491. **MSTS Publication #1102**

Kaur, P., Pote, H., Fox, S., Paradisopoulos, D. A. (2017). Sustaining change following multisystemic therapy: caregiver's perspectives. *Journal of Family Therapy*, 39, 264 – 283. **MSTS Publication #1104**

55 MST	Pantoja (2015)	Qualitative implementation research — Independent	Chilean government documents	No comparison group	From 2004 to 2015	The large scale implementation of MST in Chile was a case of public sector innovation facilitated by pre-existing knowledge and data; collaboration among central government, police, municipalities, and MST Services; and the leadership of the Undersecretariat for Crime Prevention	Community professionals/ Community providers
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Pantoja, R. (2015). Multisystemic therapy in Chile: A public sector innovation case study. *Psychosocial Intervention*, 24, 97–103. **MSTS Publication #1108**

56 MST	Barth et al. (2007)	Quasi-experimental —Independent	Behaviorally troubled youth and their families N=786	Residential treatment	1-year post discharge	Greater tendency toward living with family, progress in school, no arrest, and placement stability at less than 25% of the cost of residential treatment	Community therapists/ Community providers
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Barth, R. P., Greeson, J. K. P., Guo, S., Green, R. L., Hurley, S., & Sisson, J. (2007). Outcomes for youth receiving intensive in-home therapy or residential care: A comparison using propensity scores. *American Journal of Orthopsychiatry*, 77, 497– 505. **MSTS Publication #1021**

57 MST	Connell et al. (2016)	Treatment process — Independent	Juvenile offenders returning from or at risk of out-of-home care N=633	No comparison group	34 months	Criminal rearrest associated with younger age, African American, behavior disorder, and prior arrests	Community therapists/ Community providers
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Connell, C. M., Steeger, C. M., Schroeder, J. A., Franks, R. P., & Tebes, J. K. (2016). Child and case influences on recidivism in a statewide dissemination of multisystemic therapy for juvenile offenders. *Criminal Justice and Behavior*, 43, 1330 –1346. **MSTS Publication #1514**

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
<b>58</b> MST	Fox et al. (2017)	Qualitative treatment process research — Independent	British ethnic minority caregivers of youths who completed MST N=7	No comparison group	From 0 to 12 months post treatment	Therapist consideration of cultural differences facilitated engagement; therapist acting as cultural mediator facilitated favorable change	Community professionals/ Community providers

Fox, S., Bibi, F., Millar, H., & Holland, A. (2017). The role of cultural factors in engagement and change in multisystemic therapy (MST). *Journal of Family Therapy*, 39, 243 – 263. **MSTS Publication #1505**

<b>59</b> MST	Lange, Van der Rijken, Delsing et al. (2017)	Treatment process — Independent	Dutch adolescents with severe externalizing behavior problems and their families N=1970	No comparison group	Data collected monthly during treatment	Bidirectionally, client-therapist alliance promoted treatment adherence, and adherence supported the alliance	Community professionals/ Community providers
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Lange, A. M. C., Van der Rijken, R. E. A., Delsing, M. J. M. H., Busschbach, J. J. V., van Horn, J. E., & Scholte, R. H. J. (2017). Alliance and adherence in a systemic therapy. *Child and Adolescent Mental Health*, 22, 148 –154. **MSTS Publication #1515**

<b>60</b> MST	Van der Rijken et al. (2016)	Implementation research — Quasi-experimental —Independent	Dutch adolescents with severe externalizing behavior problems receiving MST and their families N=182	Outcomes compared with an interpreter vs. without an interpreter	3.3 years	Outcomes of cases in which interpreters (either professional or family members) were used were similar to counterparts without interpreters	Community therapists/ Community providers
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Van der Rijken, R. E. A., Bijlsma, E., Wilpert, J., van Horn, J. E., van Geffen, W. and van Busschbach, J. J. (2016). Using Interpreters in Mental Health Care: An Exploration of Multisystemic Therapy Outcomes. *Journal of Emotional and Behavioral Disorders*, 24(2), 92 –100. **MSTS Publication #1503**

<b>61</b> MST	Bruns et al. (2016)	Implementation research — Independent	U.S. state mental health systems	Availability of 6 child and adult EBTs, including MST, across state mental health systems	Data examined from 2001 to 2012	In general, state mental health system investment in EBTs, including MST, increased until the economic crisis of 2008 and has since leveled off.	Community therapists/ Community providers
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Bruns, E. J., Kerns, S. E. U., Pullman, M. D., Hensley, S. W., Lutterman, T., & Hoagwood, K. E. (2016). Research, data, and evidence-based treatment use in state behavioral health systems, 2001– 2012. *Psychiatric Services*, 67, 496 – 503. **MSTS Publication #1510**

<b>62</b> MST	Vermeulen et al. (2017)	Cost-effectiveness study — Independent	Dutch adolescents chronically antisocial and seriously violent N=116	Treatment as usual consisting mainly of FFT	6 months post treatment	Overall costs from a societal perspective were about 50% less for MST	Community therapists/ Community providers
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Vermeulen, K. M., Jansen, D. E. M. C., Knorth, E. J., Buskens, E., & Reijneveld, S. A. (2017). Cost-effectiveness of multisystemic therapy versus usual treatment for young people with antisocial problems. *Criminal Behaviour and Mental Health*, 27, 89 –102. **MSTS Publication #1572**



# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
<b>63</b> MST	Porter & Nuntavisit (2016)	Benchmarking —Independent N=153	Australian youth with severe externalizing problems at risk for out-of-home placement and their families	Other MST trials	12 months post treatment	Sustained improvement in youth emotional and behavior functioning as well as caregiver mental health symptoms and parenting	Community professionals/ Community providers

Porter, M., & Nuntavisit, L. (2016). An evaluation of multisystemic therapy with Australian families. *Australian & New Zealand Journal of Family Therapy*, 37, 443–462. **MSTS Publication #1519**

<b>64</b> MST	Lange, van der Rijken, Busschbach et al. (2017)	Implementation research — Independent	Dutch adolescents with severe behavior problems and their families N=4290, therapists N=222, and supervisors N=48	No comparison group	Post treatment outcomes examined 2004 – 2014	High adherence associated with more favorable youth outcomes and predicted by therapist and country-wide experience; adherence mediated associations between experience and outcomes	Community therapists/ Community providers
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Lange, A. M. C., van der Rijken, R. E. A., Busschbach, J. J. V., Delsing, M. J. M. H., & Scholte, R. H. J. (2017). It's not just the therapist: Therapist and country-wide experience predict therapist adherence and adolescent outcome. *Child Youth Care Forum*, 46, 455 – 471. **MSTS Publication #1566**

<b>65</b> MST	Vidal et al. (2017)	Quasi-experimental —Independent	Youth at high risk of out-of-home placement and their families N=740	Youth referred to MST but removed from treatment for reasons unrelated to case progress	6 years post recruitment	Decreased adjudications (32%), out-of-home placements (31%), and placements in juvenile training schools (32%)	Community therapists/ Community providers
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Vidal, S., Steeger, C. M., Caron, C., Lasher, L., & Connell, C. M. (2017). Placement and delinquency outcomes among system-involved youth referred to multisystemic therapy: A propensity score matching analysis. *Administration and Policy in Mental Health*, 44, 853 – 866. **MSTS Publication #1573**

<b>66</b> MST-PSB	Ter Beek et al. (2018)	Implementation research, cross sectional — Independent	Dutch adolescent boys admitted to intensive specialized treatment for problem sexual behavior N=86	Residential placements with mean stays of 2 and 4 years, respectively	Baseline comparison	In general, youth referred to MST-PSB were less symptomatic and lower risk	Community and residential providers
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Ter Beek, E., van der Rijken, R. E. A., Kuiper, C. H. Z., Hendriks, J., & Stams, G. J. J. M. (2018). The allocation of sexually transgressive juveniles to intensive specialized treatment: An assessment of the application of RNR principles. *International Journal of Offender Therapy and Comparative Criminology*, 62, 1179-1200. **MSTS Publication #1615**

<b>67</b> MST	Dopp et al. (2018)	Quasi-experimental cost-benefit analysis — Independent	Youth at high risk of out-of-home placement and their families N=1,869	The 12 months pre treatment	24 months post treatment	Cost benefit of \$34,326 per youth in avoided behavioral health claims and reductions in juvenile crime	Community and residential providers
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Dopp, A. R., Coen, A. S., Smith, A. B., Reno, J., Bernstein, D. H., Kerns, S. E. U., & Altschul, D. (2018). Economic impact of the statewide implementation of an evidence-based treatment: Multisystemic therapy in New Mexico. *Behavior Therapy*, 49, 551-566. **MSTS Publication #1616**



# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
68 MST	Swenson et al. (2018)	Qualitative implementation research	Disadvantaged communities in Ghana and the United States	No comparison community	1998-2018	Guided by MST principles, multifaceted interventions were developed to effectively address key health and social problems identified by community stakeholders	

Swenson, C. C., Yeboah, S. N., Yeboah, N. A., Spratt, E. G., Archie-Hudson, M., & Taylor, I. S. (2018). Sustainable change in rural Africa through village-guided interventions and global partnerships. *Africology: The Journal of Pan African Studies*, 12, 373-394. **MSTS Publication #1606**

69 MST	Harrison-Stewart (2018)	Qualitative treatment process research—Independent	British caregivers of adopted youths who received MST N=11	No comparison group	From 1 to 84 months post treatment	Favorable outcomes facilitated by increased parental confidence and behavioral strategies. Yet, engagement sometimes impeded by therapist lack of adoption-related knowledge	Community therapists/ Community providers
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Harrison-Stewart, B., Fox, S., & Millar, H. (2018). Multisystemic Therapy in families of adopted young people referred for antisocial behaviour problems. *Adoption & Fostering*, 42, 162-175. **MSTS Publication #1611**

70 MST	Fonagy et al. (2018)	Randomized clinical trial—Independent	British youths with antisocial behavior and their families N = 684	Usual community services	6, 12, and 18 months post randomization	<p><b>At 6 months:</b> extensive improvements in youth emotional and behavioral functioning as well as parental mental health and family functioning.</p> <p><b>At 12 months:</b> continued improvement in youth emotional functioning, caregiver mental health, and family satisfaction.</p> <p><b>At 18 months:</b> some continued youth and caregiver improvements but no decreases in arrests or placements.</p>	Community therapists/ Community providers
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Fonagy, P., Butler, S., Cottrell, D., Scott, S., Pilling, S., Eisler, I., Fuggle, P., Kraam, A., Byford, S., Wason, J., Ellison, R., Simes, E., Ganguli, P., Allison, E., & Goodyer, I. M. (2018). Multisystemic therapy versus management as usual in the treatment of adolescent antisocial behaviour (START): a pragmatic, randomized controlled, superiority trial. *Lancet Psychiatry*, 5, 119-133. **MSTS Publication #1610**

71 MST	Eeren et al. (2018)	Quasi-experimental—Independent	Dutch youth with antisocial behavior and their families referred to MST or FFT programs N = 697	FFT	Post treatment	MST was used more frequently for high risk youth, was more effective at engaging youth in school and work, and was more effective at reducing externalizing behavior problems for lower risk youth	Community therapists/ Community providers
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Eeren, H. V., Goossens, L. M. A., Scholte, R. H. J., Busschbach, J. J. V., & van der Rijken, R. E. A. (2018). Multisystemic therapy and functional family therapy compared on their effectiveness using the propensity score method. *Journal of Abnormal Child Psychology*, 46, 1037-1050. **MSTS Publication #1609**

# Published MST Outcome, Implementation and Benchmarking Studies

## January 2019

Study # & Name	Publication	Design	Population (N)	Comparison	Follow-up	Treatment Effects (a) & Findings	Therapists/ Provider Organization
<b>72</b> MST-CAN	Heriot & Kissouri (2018)	Qualitative implementation research—Independent	New South Wales government and MST-CAN and FFTCW sites	No comparison group	Pre-implementation period	Critical implementation challenges during the pre-implementation phase are described	Community professionals and stakeholders

Heriot, S., & Kissouri, M. (2018). Moving toward an evidence-based family and community-based approach to improve the lives of children and young people who have experienced abuse and neglect. *Australian and New Zealand Journal of Family Therapy*, 39, 294-302. **MSTS Publication #1612**

<b>73</b> MST	Lange et al. (2018)	Treatment process—Independent	Dutch adolescents with severe behavior problems and their families N = 846 and therapists N = 63	No comparison group	Post treatment and 18 months post treatment	Adherence increased during treatment, and high adherence was associated with more favorable youth outcomes at post treatment	Community therapists/ Community providers
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Lange, A. M. C., van der Rijken, R. E. A., Delsing, M. J. M. H., Busschbach, J. J. V., & Scholte, R. H. J. (2018). Development of therapist adherence in relation to treatment outcomes of adolescents with behavioral problems. *Journal of Clinical Child & Adolescent Psychology*, doi.org/10.1080/15374416.2018.1477049. **MSTS Publication #1613**

<b>74</b> MST	Cunningham et al. (2018)	Treatment process	Therapists (20 MST, 20 FFT) and supervisors (10 MST, 10 FFT)	FFT	Mid treatment and post treatment	The most common mid-treatment problems identified by participants were lack of engagement, difficulty following through on recommendations, family relationship barriers, and external (e.g., housing) and/or internal (e.g., caregiver mental illness) challenges. Some MST-FFT differences were reported.	Community therapists/ Community providers
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Cunningham, P. B., Foster, S. L., Kawahara, D. M., Robbins, M. S., Bryan, S., Burlison, G., Day, C., Yu, S., & Smith, K. (2018). Midtreatment problems implementing evidence-based interventions in community settings. *Family Process*, doi:10.1111/famp.12380. **MSTS Publication #1607**

# Listing of published, peer-reviewed journal articles by study number

- 1 • Henggeler, S. W., Rodick, J. D., Borduin, C. M., Hanson, C. L., Watson, S. M., & Urey, J. R. (1986). Multisystemic treatment of juvenile offenders: Effects on adolescent behavior and family interaction. *Developmental Psychology*, 22, 132–141. **FSRC Publication #104**
- 2 • Brunk, M., Henggeler, S. W., & Whelan, J. P. (1987). A comparison of multisystemic therapy and parent training in the brief treatment of child abuse and neglect. *Journal of Consulting and Clinical Psychology*, 55, 311–318. **FSRC Publication #103**
- 3 • Borduin, C. M., Henggeler, S. W., Blaske, D. M., & Stein, R. (1990). Multisystemic treatment of adolescent sexual offenders. *International Journal of Offender Therapy and Comparative Criminology*, 35, 105–114. **FSRC Publication #102**
- 4 • Henggeler, S. W., Melton, G. B., & Smith, L. A. (1992). Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology*, 60, 953–961. **FSRC Publication #4**
  - Henggeler, S. W., Melton, G. B., Smith, L. A., Schoenwald, S. K., & Hanley, J. H. (1993). Family preservation using multisystemic treatment: Long-term follow-up to a clinical trial with serious juvenile offenders. *Journal of Child and Family Studies*, 2, 283–293. **FSRC Publication #13**
  - Henggeler, S. W., Borduin, C. M., Melton, G. B., Mann, B. J., Smith, L., Hall, J. A., Cone, L., & Fucci, B. R. (1991). Effects of multisystemic therapy on drug use and abuse in serious juvenile offenders: A progress report from two outcome studies. *Family Dynamics of Addiction Quarterly*, 1, 40–51. **FSRC Publication #101**
- 5 • Borduin, C. M., Mann, B. J., Cone, L. T., Henggeler, S. W., Fucci, B. R., Blaske, D. M., & Williams, R. A. (1995). Multisystemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. *Journal of Consulting and Clinical Psychology*, 63, 569–578. **FSRC Publication #25**
  - Schaeffer, C. M., & Borduin, C. M. (2005). Long-term follow-up to a randomized clinical trial of multisystemic therapy with serious and violent juvenile offenders. *Journal of Consulting and Clinical Psychology*, 73(3), 445–453. **FSRC Publication #261**
  - Klietz, S. J., Borduin, C. M., & Schaeffer, C. M. (2010). Cost-benefit analysis of multisystemic therapy with serious and violent juvenile offenders. *Journal of Family Psychology*, 24, 657–666. **FSRC Publication #383**
  - Sawyer, A. M., & Borduin, C. M. (2011). Effects of MST through midlife: A 21.9-year follow up to a randomized clinical trial with serious and violent juvenile offenders. *Journal of Consulting and Clinical Psychology*, 79, 643–652. **FSRC Publication #396**
  - Wagner, D. V., Borduin, C. M., Sawyer, A. M., & Dopp, A. R. (2014). Long-term prevention of criminality in siblings of serious and violent juvenile offenders: A 25-year follow-up to a randomized clinical trial of multisystemic therapy. *Journal of Consulting and Clinical Psychology*, 82, 492–499. **MSTS Publication #1091**
  - Dopp, A. R., Borduin, C. M., Wagner, D. V., & Sawyer, A. M. (2014). The economic impact of multisystemic therapy through midlife: A cost-benefit analysis with serious juvenile offenders and their siblings. *Journal of Consulting and Clinical Psychology*, 82, 694–705. **MSTS Publication #1093**
  - Johnides, B. D., Borduin, C. M., Wagner, D. V., & Dopp, A. R. (2017). Effects of multisystemic therapy on caregivers of serious juvenile offenders: A 20-year follow-up to a randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 85, 323–334. **MSTS Publication #1563**
  - Dopp, A. R., Borduin, C. M., Willroth, E. C., & Sorg, A. A. (2017). Long-term economic benefits of psychological interventions for criminality: Comparing and integrating estimation methods. *Psychology, Public Policy, and Law*, 23, 312–323. **MSTS Publication #1557**
- 6 • Henggeler, S. W., Melton, G. B., Brondino, M. J., Scherer, D. G., & Hanley, J. H. (1997). Multisystemic therapy with violent and chronic juvenile offenders and their families: The role of treatment fidelity in successful dissemination. *Journal of Consulting and Clinical Psychology*, 65, 821–833. **FSRC Publication #55**

# Listing of published, peer-reviewed journal articles by study number

- 7 • Henggeler, S. W., Rowland, M. R., Randall, J., Ward, D., Pickrel, S. G., Cunningham, P. B., Miller, S. L., Edwards, J. E., Zealberg, J., Hand, L., & Santos, A. B. (1999). Home-based multisystemic therapy as an alternative to the hospitalization of youth in psychiatric crisis: Clinical outcomes. *Journal of the American Academy of Child & Adolescent Psychiatry*, 38, 1331–1339. **FSRC Publication #88**
- 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, 3–12. **FSRC Publication #64**
- Henggeler, S. W., Rowland, M. D., Halliday-Boykins, C., Sheidow, A. J., Ward, D. M., Randall, J., Pickrel, S. G., Cunningham, P. B., & Edwards, J. (2003). One-year follow-up of multisystemic therapy as an alternative to the hospitalization of youths in psychiatric crisis. *Journal of the American Academy of Child & Adolescent Psychiatry*, 42, 543–551. **FSRC Publication #231**
- Huey, S. J. Jr., Henggeler, S. W., Rowland, M. D., Halliday-Boykins, C. A., Cunningham, P. B., 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. **FSRC Publication #247**
- Sheidow, A. J., Bradford, W. D., Henggeler, S. W., Rowland, M. D., Halliday-Boykins, C., Schoenwald, S. K., & Ward, D. M. (2004). Treatment costs for youths in psychiatric crisis: Multisystemic therapy versus hospitalization. *Psychiatric Services*, 55, 548–554. **FSRC Publication #253**
- Halliday-Boykins, C. A., Henggeler, S. W., Rowland, M. D., & DeLucia, C. (2004). Heterogeneity in youth symptom trajectories following psychiatric crisis: Predictors and placement outcomes. *Journal of Consulting and Clinical Psychology*, 72, 993–1003. **MSTS Publication #1010**
- 8 • Henggeler, S. W., Pickrel, S. G., & Brondino, M. J. (1999). Multisystemic treatment of substance abusing and dependent delinquents: Outcomes, treatment fidelity, and transportability. *Mental Health Services Research*, 1, 171–184. **FSRC Publication #85**
- Henggeler, S. W., Pickrel, S. G., Brondino, M. J., & Crouch, J. L. (1996). Eliminating (almost) treatment dropout of substance abusing or dependent delinquents through home-based multisystemic therapy. *American Journal of Psychiatry*, 153, 427–428. **FSRC Publication #40**
- Schoenwald, S. K., Ward, D. M., Henggeler, S. W., Pickrel, S. G., & Patel, H. (1996). MST treatment of substance abusing or dependent adolescent offenders: Costs of reducing incarceration, inpatient, and residential placement. *Journal of Child and Family Studies*, 5, 431–444. **FSRC Publication #54**
- Brown, T. L., Henggeler, S. W., Schoenwald, S. K., Brondino, M. J., & Pickrel, S. G. (1999). Multisystemic treatment of substance abusing and dependent juvenile delinquents: Effects on school attendance at posttreatment and 6-month follow-up. *Children's Services: Social Policy, Research, and Practice*, 2, 81–93. **FSRC Publication #71**
- Huey, S. J., Henggeler, S. W., Brondino, M. J., & Pickrel, S. G. (2000). Mechanisms of change in multisystemic therapy: Reducing delinquent behavior through therapist adherence and improved family and peer functioning. *Journal of Consulting and Clinical Psychology*, 68, 451–467. **FSRC Publication #91**
- Henggeler, S. W., Clingempeel, W. G., Brondino, M. J., & Pickrel, S. G. (2002). Four-year follow-up of multisystemic therapy with substance abusing and dependent juvenile offenders. *Journal of the American Academy of Child & Adolescent Psychiatry*, 41, 868–874. **FSRC Publication #223**
- 9 • Borduin, C. M., Schaeffer, C. M., & Heiblum, N. (2009). A randomized clinical trial of multisystemic therapy with juvenile sexual offenders: Effects on youth social ecology and criminal activity. *Journal of Consulting and Clinical Psychology*, 77, 26–37. **FSRC Publication #335**
- Borduin, C. M., & Dopp, A. R. (2015). Economic impact of multisystemic therapy with juvenile sexual offenders. *Journal of Family Psychology*, 29, 687–696. **MSTS Publication #1107**

# Listing of published, peer-reviewed journal articles by study number

- 10 • Henggeler, S. W., Schoenwald, S. K., Liao, J. G., Letourneau, E. J., & Edwards, D. L. (2002). Transporting efficacious treatments to field settings: The link between supervisory practices and therapist fidelity in MST programs. *Journal of Clinical Child and Adolescent Psychology*, 31, 155–167. **FSRC Publication #215**
- Schoenwald, S. K., Halliday-Boykins, C. A., & Henggeler, S. W. (2003). Client-level predictors of adherence to MST in community service settings. *Family Process*, 42, 345–359. **FSRC Publication #244**
- 11 • Schoenwald, S. K., Sheidow, A. J., Letourneau, E. J., & Liao, J. G. (2003). Transportability of Multisystemic Therapy: Evidence for multilevel influences. *Mental Health Services Research*, 5, 223–239. **FSRC Publication #235**
- Schoenwald, S. K., Sheidow, A. J., & Letourneau, E. J. (2004). Toward effective quality assurance in evidence-based practice: Links between expert consultation, therapist fidelity, and child outcomes. *Journal of Child and Adolescent Clinical Psychology*, 33, 94–104. **FSRC Publication #242**
- Halliday-Boykins, C. A., Schoenwald, S. K., & Letourneau, E. J. (2005). Caregiver-therapist ethnic similarity predicts youth outcomes from an empirically based treatment. *Journal of Consulting and Clinical Psychology*, 73, 808–818. **FSRC Publication #256**
- Schoenwald, S. K., Carter, R. E., Chapman, J. E., & Sheidow, A. J. (2008). Therapist adherence and organizational effects on change in youth behavior problems one year after Multisystemic Therapy. *Administration and Policy in Mental Health and Mental Health Services Research*, 35, 379–394. **FSRC Publication #326**
- Schoenwald, S. K., Sheidow, A. J., & Chapman, J. E. (2009). Clinical supervision in treatment transport: Effects on adherence and outcomes. *Journal of Consulting and Clinical Psychology*, 77, 410–421. **FSRC Publication #344**
- Schoenwald, S. K., Chapman, J. E., Sheidow, A. J., & Carter, R.E. (2009). Long-term youth criminal outcomes in MST transport: The impact of therapist adherence and organizational climate and structure. *Journal of Clinical Child and Adolescent Psychology*, 38, 91–105. **FSRC Publication #337**
- Schoenwald, S. K., Chapman, J. E., Henry, D. B., & Sheidow, A. J. (2012). Taking effective treatments to scale: Organizational effects on outcomes of multisystemic therapy for youths with co-occurring substance use. *Journal of Child & Adolescent Substance Abuse*, 21, 1–31. **FSRC Publication #401**
- 12 • Ogden, T., & Halliday-Boykins, C. A. (2004). Multisystemic treatment of antisocial adolescents in Norway: Replication of clinical outcomes outside of the US. *Child & Adolescent Mental Health*, 9(2), 77–83. **FSRC Publication #248**
- Ogden, T., & Hagen, K. A. (2006). Multisystemic treatment of serious behaviour problems in youth: Sustainability of effectiveness two years after intake. *Journal of Child and Adolescent Mental Health*, 11, 142–149. **FSRC Publication #264**
- 13 • Ellis, D. A., Naar-King, S., Frey, M. A., Templin, T., Rowland, M., & Greger, N. (2004). Use of Multisystemic Therapy to improve regimen adherence among adolescents with type 1 diabetes in poor metabolic control: A pilot investigation. *Journal of Clinical Psychology in Medical Settings*, 11, 315–324. **FSRC Publication #357**
- 14 • Ellis, D. A., Frey, M. A., Naar-King, S., Templin, T., Cunningham, P. B., & Cakan, N. (2005a). Use of multisystemic therapy to improve regimen adherence among adolescents with type 1 diabetes in chronic poor metabolic control: A randomized controlled trial. *Diabetes Care*, 28, 1604–1610. **FSRC Publication #268**
- Ellis, D. A., Naar-King, S., Frey, M. A., Templin, T., Rowland, M., & Cakan, N. (2005). Multisystemic treatment of poorly controlled type 1 diabetes: Effects on medical resource utilization. *Journal of Pediatric Psychology*, 30, 656–666. **FSRC Publication #278**
- Ellis, D. A., Frey, M. A., Naar-King, S., Templin, T., Cunningham, P. B., & Cakan, N. (2005b). The effects of multisystemic therapy on diabetes stress in adolescents with chronically poorly controlled type 1 diabetes: Findings from a randomized controlled trial. *Pediatrics*, 116, e826–e832. **FSRC Publication #267**



# Listing of published, peer-reviewed journal articles by study number

- Ellis, D. A., Templin, T., Naar-King, S., Frey, M. A., Cunningham, P. B., Podolski, C., & Cakan, N. (2007). Multisystemic therapy for adolescents with poorly controlled type I diabetes: Stability of treatment effects in a randomized controlled trial. *Journal of Consulting and Clinical Psychology, 75*, 168 –174. **FSRC Publication #297**
- Naar-King, S., Ellis, D. A., Idalski, A., Frey, M. A., & Cunningham, P. B. (2007). Multisystemic therapy decreases parental overestimation of adolescent responsibility for type 1 diabetes management in urban youth. *Families, Systems, & Health, 25*, 178 –189. **FSRC Publication #343**
- Ellis, D. A., Naar-King, S., Templin, T., Frey, M. A., & Cunningham, P. B. (2007). Improving health outcomes among youth with poorly controlled type 1 diabetes: The role of treatment fidelity in a randomized clinical trial of multisystemic therapy. *Journal of Family Psychology, 21*, 363 – 371. **FSRC Publication #304**
- Ellis, D. A., Naar-King, S., Templin, T., Frey, M. A., Cunningham, P. B., Sheidow, A., Cakan, N., & Idalski, A. (2008). Multisystemic therapy for adolescents with poorly controlled type 1 diabetes: Reduced diabetic ketoacidosis admissions and related costs over 24 months. *Diabetes Care, 31*, 1746 –1747. **FSRC Publication #380**
- 15 • Rowland, M. R., 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*, 13 – 23. **FSRC Publication #262**
- 16 • Timmons-Mitchell, J., Bender, M. B., Kishna, M. A., & Mitchell, C. C. (2006). An independent effectiveness trial of multisystemic therapy with juvenile justice youth. *Journal of Clinical Child and Adolescent Psychology, 35*, 227– 236. **FSRC Publication #291**
- 17 • Henggeler, S. W., Halliday-Boykins, C. A., Cunningham, P. B., Randall, J., Shapiro, S. B., & Chapman, J. E. (2006). Juvenile drug court: Enhancing outcomes by integrating evidence-based treatments. *Journal of Consulting and Clinical Psychology, 74*, 42 – 54. **FSRC Publication #270**
- Rowland, M. R., Chapman, J. E., & Henggeler, S. W. (2008). Sibling outcomes from a randomized trial of evidence-based treatments with substance abusing juvenile offenders. *Journal of Child & Adolescent Substance Abuse, 17*, 11– 26. **FSRC Publication #320**
- Sheidow, A. J., Jayawardhana, J., Bradford, W. D., Henggeler, S. W., & Shapiro, S. B. (2012). Money matters: Cost effectiveness of juvenile drug court with and without evidence-based treatments. *Journal of Child & Adolescent Substance Abuse, 21*, 69 – 90. **FSRC Publication #402**
- Gillespie, M. L., Huey, S. J., & Cunningham, P. B. (2017). Predictive validity of an observer-rated adherence protocol for multisystemic therapy with juvenile drug offenders. *Journal of Substance Abuse Treatment, 76*, 1–10. **MSTS Publication #1560**
- Sayegh, C. S., Hall-Clark, B. N., McDaniel, D. D., Halliday-Boykins, C. A., Cunningham, P. B., & Huey, S. J. Jr. (2016). A preliminary investigation of ethnic differences in resistance in multisystemic therapy. *Journal of Clinical Child & Adolescent Psychology*, doi.org/10.1080/15374416.1157754. **MSTS Publication #1521**
- 18 • Ogden, T., Hagen, K. A., & Andersen, O. (2007). Sustainability of the effectiveness of a programme of multisystemic treatment (MST) across participant groups in the second year of operation. *Journal of Children's Services, 2*, 4 –14. **FSRC Publication #312**
- 19 • Stambaugh, L. F., Mustillo, S. A., Burns, B. J., Stephens, R. L., Baxter, B., Edwards, D., & DeKraai, M. (2007). Outcomes from wraparound and multisystemic therapy in a center for mental health services system-of-care demonstration site. *Journal of Emotional and Behavioral Disorders, 15*, 143 –155. **FSRC Publication #303**
- 20 • Sundell, K., Hansson, K., Lofholm, C. A., Olsson, T., Gustle, L. H., & Kadesjo, C. (2008). The transportability of MST to Sweden: Short-term results from a randomized trial of conduct disordered youth. *Journal of Family Psychology, 22*, 550 – 560. **FSRC Publication #330**
- Olsson, T. M. (2009). Intervening in youth problem behavior in Sweden: a pragmatic cost analysis of MST from a randomized trial with conduct-disordered youths. *International Journal of Social Welfare, 19*, 194 – 205. **FSRC Publication #417**

# Listing of published, peer-reviewed journal articles by study number

- Olsson, T. M. (2010). MST with conduct disordered youth in Sweden: Costs and benefits after 2 years. *Research on Social Work Practice*, 20, 561– 571. **FSRC Publication #418**
- Gustle, L. H., Hansson, K., Sundell, K., Lundh, L. G., & Lofholm, C. A. (2007). Blueprints in Sweden. Symptom load in Swedish adolescents in studies of functional family therapy (FFT), multisystemic therapy (MST) and multidimensional treatment foster care (MTFC). *Nordic Journal of Psychiatry*, 61, 443 – 451. **MSTS Publication #1020**
- 21 • Curtis, N. M., Ronan, K. R., Heiblum, N., & Crellin, K. (2009). Dissemination and effectiveness of multisystemic treatment in New Zealand: A benchmarking study. *Journal of Family Psychology*, 23, 119 –129. **FSRC Publication #341**
- 22 • Letourneau, E. J., Henggeler, S. W., Borduin, C. M., Schewe, P. A., McCart, M. R., Chapman, J. E., & Saldana, L. (2009). Multisystemic therapy for juvenile sexual offenders: 1-year results from a randomized effectiveness trial. *Journal of Family Psychology*, 23, 89 –102. **FSRC Publication #336**
- Henggeler, S. W., Letourneau, E. J., Chapman, J. E., Borduin, C. M., Schewe, P. A., & McCart, M. R. (2009). Mediators of change for multisystemic therapy with juvenile sexual offenders. *Journal of Consulting and Clinical Psychology*, 77, 451– 462. **FSRC Publication #345**
- Letourneau, E. J., Henggeler, S. W., McCart, M. R., Borduin, C. M., Schewe, P. A., & Armstrong, K. S. (2013). Two-year follow-up of a randomized effectiveness trial evaluating MST for juveniles who sexually offend. *Journal of Family Psychology*, 27, 978 – 985. **MSTS Publication #1081**
- 23 • Naar-King, S., Ellis, D., Kolmodin, K., Cunningham, P., Jen, K. L. C., Saelens, B., & Brogan, K. (2009). A randomized pilot study of multisystemic therapy targeting obesity in African- American adolescents. *Journal of Adolescent Health*, 45, 417– 419. **FSRC Publication #352**
- Carcone, A. I., MacDonell, K. E., Naar-King, S., Ellis, D. E., Cunningham, P. B., & Kaljee, L. (2011). Treatment engagement in a weight-loss intervention for African-American adolescents and their families. *Children's Health Care*, 40, 1– 21. **FSRC Publication #395**
- 24 • Swenson, C. C., Schaeffer, C., Henggeler, S. W., Faldowski, R., & Mayhew, A. M. (2010). Multisystemic therapy for child abuse and neglect: A randomized effectiveness trial. *Journal of Family Psychology*, 24, 497– 507. **FSRC Publication #382**
- Dopp, A. R., Schaeffer, C. M., Swenson, C. C., & Powell, J. S. (2018). Economic impact of multisystemic therapy for child abuse and neglect. *Administration and Policy in Mental Health and Mental Health Services Research*, 45, 876-887. **MSTS Publication #1608**
- 25 • Glisson, C., Schoenwald, S. K., Hemmelgarn, A., Green, P., Dukes, D., Armstrong, K. S., & Chapman, J. E. (2010). Randomized trial of MST and ARC in a two-level EBT implementation strategy. *Journal of Consulting and Clinical Psychology*, 78, 537– 550. **FSRC Publication #381**
- 26 • Butler, S., Baruch, G., Hickley, N., & Fonagy, P. (2011). A randomized controlled trial of MST and a statutory therapeutic intervention for young offenders. *Journal of the American Academy of Child & Adolescent Psychiatry*, 50, 1220 –1235. **FSRC Publication #398**
- Tighe, A., Pistrang, N., Casdagli, L., Baruch, G., & Butler, S. (2012). Multisystemic therapy for young offenders: Families' experiences of therapeutic processes and outcomes. *Journal of Family Psychology*, 26, 187–197. **FSRC Publication #408**
- Cary, M., Butler, S., Baruch, G., Hickey, N., & Byford, S. (2013). Economic evaluation of multisystemic therapy for young people at risk for continuing criminal activity in the UK. *PLoS ONE* 8(4): e61070. **MSTS Publication #1082**
- 27 • Boonstra, C., Jonkman, C., Soeteman, D., & Van Busschbach, J. (2009). Multi-systemic therapy for seriously antisocial and delinquent juveniles: two-year follow-up study. *Systemic Therapy*, 21, 94 –104. **FSRC Publication #420**
- 28 • Boxer, P. (2011). Negative peer involvement in multisystemic therapy for the treatment of youth problem behavior: Exploring outcome and process variables in “real-world” practice. *Journal of Clinical Child & Adolescent Psychology*, 40, 848 – 854. **FSRC Publication #419**

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- 29** • Asscher, J. J., Dekovic, M., Manders, W. A., Van der Laan, P. H., & Prins, P. J. M. (2013). A randomized controlled trial of the effectiveness of multisystemic therapy in the Netherlands: Post-treatment changes and moderator effects. *Journal of Experimental Criminology*, 9, 169–187. **MSTS Publication #1083**
- Dekovic, M., Asscher, J. J., Manders, W. A., Prins, P. J. M., & van der Laan, P. (2012). Within-intervention change: Mediators of intervention effects during multisystemic therapy. *Journal of Consulting and Clinical Psychology*, 80, 574–587. **FSRC Publication #413**
- Manders, W. A., Dekovic, M., Asscher, J. J., Van der Laan, P. H., & Prins, P. J. M. (2013). Psychopathy as predictor and moderator of multisystemic therapy outcomes among adolescents treated for antisocial behavior. *Journal of Abnormal Child Psychology*, 41, 1121–1132. **MSTS Publication #1084**
- Asscher, J. J., Dekovic, M., Manders, W., Van der Laan, P. H., Prins, P. J. M., & van Arum, S. (2014). Sustainability of the effects of multisystemic therapy for juvenile delinquents in the Netherlands: effects on delinquency and recidivism. *Journal of Experimental Criminology*, 10, 227–243. **MSTS Publication #1092**
- Asscher, J. J., Dekovic, M., Van den Akker, A. L., Manders, W. A., Prins, P. J. M., van der Laan, P. H., & Prinzie, P. (2016). Do personality traits affect responsiveness of juvenile delinquents to treatment? *Journal of Research in Personality*, 63, 44–50. **MSTS Publication #1513**
- Asscher, J. J., Dekovic, M., Van den Akker, A. L., Prins, P. J. M., & Van der Laan, P. H. (2018). Do extremely violent juveniles respond differently to treatment? *International Journal of Offender Therapy and Comparative Criminology*, 62, 958–977. **MSTS Publication #1614**
- Mertens, E. C. A., Dekovic, M., Asscher, J. J., & Manders, W. A. (2017). Heterogeneity in response during multisystemic therapy: Exploring subgroups and predictors. *Journal of Abnormal Child Psychology*, 45, 1285–1295. **MSTS Publication #1568**
- 30** • Ellis, D. A., Naar-King, S., Chen, X., Moltz, K., Cunningham, P. B., & Idalski-Carcone, A. (2012). Multisystemic therapy compared to telephone support for youth with poorly controlled diabetes: Findings from a randomized controlled trial. *Annals of Behavioral Medicine*, 44, 207–215. **FSRC Publication #412**
- Carcone, A. I., Ellis, D. A., Chen, X., Naar, S., Cunningham, P. B., & Moltz, K. (2015). Multisystemic therapy improves the patient-provider relationship in families of adolescents with poorly controlled insulin dependent diabetes. *Journal of Clinical Psychology in Medical Settings*, 22, 169–178. **FSRC Publication #469**
- 31** • Glebova, T., Foster, S. L., Cunningham, P. B., Brennan, P. A., & Whitmore, E. (2012). Examining therapist comfort in delivering family therapy in home and community settings: Development and evaluation of the therapist comfort scale. *Psychotherapy*, 49, 52–61. **FSRC Publication #406**
- Schechter, J. C., Brennan, P. A., Cunningham, P. B., Foster, S. L., & Whitmore, E. (2012). Stress, cortisol, and externalizing behavior in adolescent males: An examination in the context of multisystemic therapy. *Journal of Abnormal Child Psychology*, 40, 913–922. **FSRC Publication #405**
- Ryan, S. R., Brennan, P. A., Cunningham, P. B., Foster, S. L., Brock, R. L., & Whitmore, E. (2013). Biosocial processes predicting multisystemic therapy treatment response. *Biological Psychology*, 92, 373–379. **FSRC Publication #453**
- Ryan, S. R., Cunningham, P. B., Foster, S. L., Brennan, P. A., Brock, R. L., & Whitmore, E. (2013). Predictors of therapist adherence and emotional bond in multisystemic therapy: Testing ethnicity as a moderator. *Journal of Child and Family Studies*, 22, 122–136. **FSRC Publication #455**
- Tiernan, K., Foster, S. L., Cunningham, P. B., Brennan, P., & Whitmore, E. (2015). Predicting early positive change in multisystemic therapy with youth exhibiting antisocial behaviors. *Psychotherapy*, 52, 93–102. **FSRC Publication #466**



# Listing of published, peer-reviewed journal articles by study number

- Robinson, B. A., Winiarski, D. A., Brennan, P. A., Foster, S. L., Cunningham, P. B., & Whitmore, E. A. (2015). Social context, parental monitoring, and multisystemic therapy outcomes. *Psychotherapy*, 52, 103–110. **FSRC Publication #468**
- Crandal, B. R., Foster, S. L., Chapman, J. E., Cunningham, P. B., Brennan, P. A., & Whitmore, E. A. (2015). Therapist perception of treatment outcome: Evaluating treatment outcomes among youth with antisocial behavior problems. *Psychological Assessment*, 27, 710–725. **MSTS Publication #1201**
- Winiarski, D. A., Schechter, J. C., Brennan, P. A., Foster, S. L., Cunningham, P. B., & Whitmore, E. A. (2017). Adolescent physiological and behavioral patterns of emotion dysregulation predict multisystemic therapy response. *Journal of Emotional and Behavioral Disorders*, 25, 131–142. **MSTS Publication #1574**
- Glebova, T., Foster, S. L., Cunningham, P. B., Brennan, P. A., & Whitmore, E. A. (2018). Therapists' and clients' perceptions of bonding as predictors of outcome in multisystemic therapy. *Family Process*, 57(4), 867–883. **MSTS Publication #1576**
- 32 • Ogden, T., Bjornebekk, G., Kjobli, J., Patras, J., Christiansen, T., Taraldsen, K., & Tollefsen, N. (2012). Measurement of implementation components ten years after a nationwide introduction of empirically supported programs – a pilot study. *Implementation Science*, 7:49. **FSRC Publication #416**
- 33 • Schaeffer, C. M., Swenson, C. C., Tuerk, E. H., & Henggeler, S. W. (2013). Comprehensive treatment for co-occurring child maltreatment and parental substance abuse: Outcomes from a 24-month pilot study of the MST-Building Stronger Families program. *Child Abuse and Neglect*, 37(8), 596–607. **FSRC Publication #462**
- 34 • Weiss, B., Han, S., Harris, V., Catron, T., Ngo, V. K., Caron, A., Gallop, R., & Guth, C. (2013). An independent randomized clinical trial of multisystemic therapy with non-court-referred adolescents with serious conduct problems. *Journal of Consulting and Clinical Psychology*, 81, 1027–1039. **MSTS Publication #1085**
- Weiss, B., Han, S. S., Tran, N. T., Gallop, R., & Ngo, V. K. (2015). Test of “facilitation” vs. “proximal process” moderator models for the effects of multisystemic therapy on adolescents with severe conduct problems. *Journal of Abnormal Child Psychology*, 43, 971–983. **MSTS Publication #1089**
- 35 • Stout, B. D., & Holleran, D. (2013). The impact of evidence-based practices on requests for out-of-home placements in the context of system reform. *Journal of Child and Family Studies*, 22, 311–321. **MSTS Publication #1080**
- 36 • Tolman, R. T., Mueller, C. W., Daleiden, E. L., Stumpf, R. E., & Pestle, S. L. (2008). Outcomes from multisystemic therapy in a statewide system of care. *Journal of Child and Family Studies*, 17, 894–908. **MSTS Publication #1040**
- 37 • Painter, K. (2009). Multisystemic therapy as community-based treatment for youth with severe emotional disturbance. *Research on Social Work Practice*, 19, 314–324. **MSTS Publication #1045**
- 38 • Letourneau, E. J., Ellis, D. A., Naar-King, S., Chapman, J. E., Cunningham, P. B., & Fowler, S. (2013). Multisystemic therapy for poorly adherent youth with HIV: Results from a pilot randomized controlled trial. *AIDS Care*, 25, 507–514. **FSRC Publication #464**
- 39 • Gervan, S., Granic, I., Solomon, T., Blokland, K., & Ferguson, B. (2012). Paternal involvement in multisystemic therapy: Effects on adolescent outcomes and maternal depression. *Journal of Adolescence*, 35, 743–751. **MSTS Publication #1070**
- Granic, I., Otten, R., Blokland, K., Solomon, T., Engels, R. C. M. E., & Ferguson, B. (2012). Maternal depression mediates the link between therapeutic alliance and improvements in adolescent externalizing behavior. *Journal of Family Psychology*, 26, 880–885. **MSTS Publication #1071**
- 40 • Fain, T., Greathouse, S. M., Turner, S. F., & Weinberg, H. D. (2014). Effectiveness of multisystemic therapy for minority youth: Outcomes over 8 years in Los Angeles County. *OJJDP Journal of Juvenile Justice*, 3, 24–37. **MSTS Publication #1099**

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- 41** • Westin, A. M. L., Barksdale, C. L., & Stephan, S. H. (2014). The effect of waiting time on youth engagement to evidence based treatments. *Community Mental Health Journal*, 50, 221– 228. **MSTS Publication #1088**
- 42** • Baglivio, M. T., Jackowski, K., Greenwald, M. A., & Wolff, K. T. (2014). Comparison of multisystemic therapy and functional family therapy effectiveness: A multiyear statewide propensity score matching analysis of juvenile offenders. *Criminal Justice and Behavior*, 41, 1033–1056. **MSTS Publication #1097**
- 43** • Naar-King, S., Ellis, D., King, P. S., Cunningham, P., Secord, E., Bruzzese, J-M, & Templin, T. (2014). Multisystemic therapy for high-risk African-American adolescents with asthma: A randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 82, 536 – 545. **MSTS Publication #1094**
- Ellis, D. A., King, P., Naar-King, S., Lam, P., Cunningham, P. B., & Secord, E. (2014). Effects of family treatment on parenting beliefs among caregivers of youth with poorly controlled asthma. *Journal of Developmental and Behavioral Pediatrics*, 35, 486 – 493. **MSTS Publication #1098**
- Ellis, D. A., King, P., & Naar-King, S. (2016). Mediators of treatment effects in a randomized clinical trial of multisystemic therapy-health care in adolescents with poorly controlled asthma: Disease knowledge and device use skills. *Journal of Pediatric Psychology*, 41, 522 – 530. **MSTS Publication #1512**
- 44** • Brunk, M. A., Chapman, J. E., & Schoenwald, S. K. (2014). Defining and evaluating fidelity at the program level in psychosocial treatments. *Zeitschrift fur Psychologie*, 222, 22 – 29. **MSTS Publication #1090**
- 45** • Hebert, S., Bor, W., Swenson, C. C., & Boyle, C. (2014). Improving collaboration: a qualitative assessment of inter-agency collaboration between a pilot multisystemic therapy child abuse and neglect (MSTCAN) program and a child protection team. *Australasian Psychiatry*, 22, 370 – 373. **FSRC Publication #465**
- 46** • Curtis, N. M., Ronan, K. R., & Borduin, C. M. (2004). Multisystemic treatment: A meta-analysis of outcome studies. *Journal of Family Psychology*, 18, 411– 419. **FSRC Publication #255**
- Van der Stouwe, T., Asscher, J. J., Stams, G. J. J. M., Dekovic, M., & Van der Laan, P. H. (2014). The effectiveness of multisystemic therapy (MST): A meta-analysis. *Clinical Psychology Review*, 34, 468 – 481. **MSTS Publication #1100**
- 47** • Smith-Boydston, J. M., Holtzman, R. J., & Roberts, M. C. (2014). Transportability of multisystemic therapy to community settings: Can a program sustain outcomes without MST Services oversight? *Child Youth Care Forum*, 43, 593 – 605. **MSTS Publication #1101**
- 48** • Lofholm, C. A., Eichas, K., & Sundell, K. (2014). The Swedish implementation of multisystemic therapy for adolescents: Does treatment experience predict treatment adherence. *Journal of Clinical Child & Adolescent Psychology*, 43, 643 – 655. **MSTS Publication #1095**
- 49** • Trupin, E. J., Kerns, S. E. U., Walker, S. C. DeRobertis, M. T., & Stewart, D. G. (2011). Family integrated transitions: A promising program for juvenile offenders with co-occurring disorders. *Journal of Child & Adolescent Substance Abuse*, 20, 421– 436. **FSRC Publication #399**
- 50** • Hendriks, M. E. D., Lange, A. M. C., Boonstoppel-Boender, M., & van der Rijken, R. E. A. (2014). Functional family therapy and multisystemic therapy: a comparison of target populations. *Orthopedagogiek: Onderzoek en Praktijk*, 53, 355 – 366. **MSTS Publication #1109**
- 51** • Boxer, P., Kubik, J., Ostermann, M., & Veysey, B. (2015). Gang involvement moderates the effectiveness of evidence-based intervention for justice-involved youth. *Children and Youth Services Review*, 52, 26 – 33. **MSTS Publication #1103**
- Boxer, P., Docherty, M., Ostermann, M., Kubik, J., & Veysey, B. (2017). Effectiveness of multisystemic therapy for gang-involved youth offenders: One year follow-up analysis of recidivism outcomes. *Children and Youth Services Review*, 73, 107–112. **MSTS Publication #1554**
- 52** • Welsh, B. C., & Greenwood, P. W. (2015). Making it happen: State progress in implementing evidence-based programs for delinquent youth. *Youth Violence and Juvenile Justice*, 13, 243 – 257. **MSTS Publication #1204**

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- 53** • Lange, A. M. C., Scholte, R. H. J., van Geffen, W., Timman, R., Busschbach, J. J. V., & van der Rijken, R. E. A. (2016). The lack of cross-national equivalence of a therapist adherence measure (TAM-R) in multisystemic therapy (MST). *European Journal of Psychological Assessment, 32*, 312 – 325. **MSTS Publication #1507**
- 54** • Paradisopoulos, D., Pote, H., Fox, S., & Kaur, P. (2015). Developing a model of sustained change following multisystemic therapy: young people's perspectives. *Journal of Family Therapy, 37*, 471–491. **MSTS Publication #1102**
- Kaur, P., Pote, H., Fox, S., Paradisopoulos, D. A. (2017). Sustaining change following multisystemic therapy: caregiver's perspectives. *Journal of Family Therapy, 39*, 264 – 283. **MSTS Publication #1104**
- 55** • Pantoja, R. (2015). Multisystemic therapy in Chile: A public sector innovation case study. *Psychosocial Intervention, 24*, 97–103. **MSTS Publication #1108**
- 56** • Barth, R. P., Greeson, J. K. P., Guo, S., Green, R. L., Hurley, S., & Sisson, J. (2007). Outcomes for youth receiving intensive in-home therapy or residential care: A comparison using propensity scores. *American Journal of Orthopsychiatry, 77*, 497– 505. **MSTS Publication #1021**
- 57** • Connell, C. M., Steeger, C. M., Schroeder, J. A., Franks, R. P., & Tebes, J. K. (2016). Child and case influences on recidivism in a statewide dissemination of multisystemic therapy for juvenile offenders. *Criminal Justice and Behavior, 43*, 1330 –1346. **MSTS Publication #1514**
- 58** • Fox, S., Bibi, F., Millar, H., & Holland, A. (2017). The role of cultural factors in engagement and change in multisystemic therapy (MST). *Journal of Family Therapy, 39*, 243 – 263. **MSTS Publication #1505**
- 59** • Lange, A. M. C., van der Rijken, R. E. A., Delsing, M. J. M. H., Busschbach, J. J. V., van Horn, J. E., & Scholte, R. H. J. (2017). Alliance and adherence in a systemic therapy. *Child and Adolescent Mental Health, 22*, 148 –154. **MSTS Publication #1515**
- 60** • Van der Rijken, R. E. A., Bijlsma, E., Wilpert, J., van Horn, J. E., van Geffen, W. and van Busschbach, J. J. (2016). Using Interpreters in Mental Health Care: An Exploration of Multisystemic Therapy Outcomes. *Journal of Emotional and Behavioral Disorders, 24*(2), 92 –100. **MSTS Publication #1503**
- 61** • Bruns, E. J., Kerns, S. E. U., Pullman, M. D., Hensley, S. W., Lutterman, T., & Hoagwood, K. E. (2016). Research, data, and evidence-based treatment use in state behavioral health systems, 2001– 2012. *Psychiatric Services, 67*, 496 – 503. **MSTS Publication #1510**
- 62** • Vermeulen, K. M., Jansen, D. E. M. C., Knorth, E. J., Buskens, E., & Reijneveld, S. A. (2017). Cost-effectiveness of multisystemic therapy versus usual treatment for young people with antisocial problems. *Criminal Behaviour and Mental Health, 27*, 89 –102. **MSTS Publication #1572**
- 63** • Porter, M., & Nuntavisit, L. (2016). An evaluation of multisystemic therapy with Australian families. *Australian & New Zealand Journal of Family Therapy, 37*, 443 – 462. **MSTS Publication #1519**
- 64** • Lange, A. M. C., van der Rijken, R. E. A., Busschbach, J. J. V., Delsing, M. J. M. H., & Scholte, R. H. J. (2017). It's not just the therapist: Therapist and country-wide experience predict therapist adherence and adolescent outcome. *Child Youth Care Forum, 46*, 455 – 471. **MSTS Publication #1566**
- 65** • Vidal, S., Steeger, C. M., Caron, C., Lasher, L., & Connell, C. M. (2017). Placement and delinquency outcomes among system-involved youth referred to multisystemic therapy: A propensity score matching analysis. *Administration and Policy in Mental Health, 44*, 853 – 866. **MSTS Publication #1573**
- 66** • Ter Beek, E., van der Rijken, R. E. A., Kuiper, C. H. Z., Hendriks, J., & Stams, G. J. J. M. (2018). The allocation of sexually transgressive juveniles to intensive specialized treatment: An assessment of the application of RNR principles. *International Journal of Offender Therapy and Comparative Criminology, 62*, 1179-1200. **MSTS Publication #1615**
- 67** • Dopp, A. R., Coen, A. S., Smith, A. B., Reno, J., Bernstein, D. H., Kerns, S. E. U., & Altschul, D. (2018). Economic impact of the statewide implementation of an evidence-based treatment: Multisystemic therapy in New Mexico. *Behavior Therapy, 49*, 551-566. **MSTS Publication #1616**
- 68** • Swenson, C. C., Yeboah, S. N., Yeboah, N. A., Spratt, E. G., Archie-Hudson, M., & Taylor, I. S. (2018). Sustainable change in rural Africa through village-guided interventions and global partnerships. *Africology: The Journal of Pan African Studies, 12*, 373-394. **MSTS Publication #1606**

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- 69** • Harrison-Stewart, B., Fox, S., & Millar, H. (2018). Multisystemic Therapy in families of adopted young people referred for antisocial behaviour problems. *Adoption & Fostering*, 42, 162-175.  
**MSTS Publication #1611**
- 70** • Fonagy, P., Butler, S., Cottrell, D., Scott, S., Pilling, S., Eisler, I., Fuggle, P., Kraam, A., Byford, S., Wason, J., Ellison, R., Simes, E., Ganguli, P., Allison, E., & Goodyer, I. M. (2018). Multisystemic therapy versus management as usual in the treatment of adolescent antisocial behaviour (START): a pragmatic, randomized controlled, superiority trial. *Lancet Psychiatry*, 5, 119-133.  
**MSTS Publication #1610**
- 71** • Eeren, H. V., Goossens, L. M. A., Scholte, R. H. J., Busschbach, J. J. V., & van der Rijken, R. E. A. (2018). Multisystemic therapy and functional family therapy compared on their effectiveness using the propensity score method. *Journal of Abnormal Child Psychology*, 46, 1037-1050.  
**MSTS Publication #1609**
- 72** • Heriot, S., & Kissouri, M. (2018). Moving toward an evidence-based family and community-based approach to improve the lives of children and young people who have experienced abuse and neglect. *Australian and New Zealand Journal of Family Therapy*, 39, 294-302. **MSTS Publication #1612**
- 73** • Lange, A. M. C., van der Rijken, R. E. A., Delsing, M. J. M. H., Busschbach, J. J. V., & Scholte, R. H. J. (2018). Development of therapist adherence in relation to treatment outcomes of adolescents with behavioral problems. *Journal of Clinical Child & Adolescent Psychology*, doi.org/10.1080/15374416.2018.1477049 **MSTS Publication #1613**
- 74** • Cunningham, P. B., Foster, S. L., Kawahara, D. M., Robbins, M. S., Bryan, S., Burleson, G., Day, C., Yu, S., & Smith, K. (2018). Midtreatment problems implementing evidence-based interventions in community settings. *Family Process*, doi:10.1111/famp.12380 **MSTS Publication #1607**

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**Footnotes:**

1. All treatment effects pertain to MST unless otherwise noted.
2. Counties randomized to organizational intervention conditions, youth in counties randomized to MST or usual care.

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## Listing of MST Clinical Texts, Single Group Studies, Pilot Studies, and Case Studies

### MST Clinical Texts (*available only from publishers*)

- Henggeler, S. W., & Borduin, C. M. (1990). Family therapy and beyond: A multisystemic approach to treating the behavior problems of children and adolescents. Pacific Grove, CA: Brooks/Cole.

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- Henggeler, S. W., Schoenwald, S. K., Borduin, C. M., Rowland, M. D., & Cunningham, P. B. (1998). Multisystemic treatment of antisocial behavior in children and adolescents. New York: Guilford Press. Also published in Norwegian (2000). Multisystemisk behandling av barn og unge med atferdsproblemer. Oslo, Norway: Kommuneforlaget; and in Japanese (2009).

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- Henggeler, S. W., Schoenwald, S. K., Rowland, M. D., & Cunningham, P. B., (2002). Serious emotional disturbance in children and adolescents: Multisystemic therapy. New York: Guilford Press.

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- Swenson, C. C., Henggeler, S. W., Taylor, I. S., & Addison, O. W. (2005). Multisystemic therapy and neighborhood partnerships: Reducing adolescent violence and substance abuse. New York: Guilford Press.

---

- Henggeler, S. W., Schoenwald, S. K., Borduin, C. M., Rowland, M. D., & Cunningham, P. B. (2009). Multisystemic therapy for antisocial behavior in children and adolescents (2nd ed.). New York: Guilford Press. Also published in Dutch (2010) Multisysteem therapie voor kinderen en jongeren met antisociaal gedrag, Amsterdam, Netherlands: SWP; German (2012). Multisystemische therapie bei dissozialem Verhalten von Kindern und Jugendlichen. Springer; and Norwegian (2013). Multisystemisk terapi: For barn og unge med alvorlige atferdsvansker. Glydendal Akademisk.

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- Henggeler, S. W., Cunningham, P. B., Rowland, M. D., Schoenwald, S. K., Swenson, C. C., Sheidow, A. J., McCart, M. R., Donohue, B., Navas-Murphy, L. A., & Randall, J. (2012). Contingency management for adolescent substance abuse: A practitioner's guide. New York: Guilford Press.



## Single Group Studies, Pilot Studies, and Case Studies

### MST CLINICAL PRACTICES

- Wells, C., Adhyaru, J., Cannon, J., Lamond, M., & Baruch, G. (2010). Multisystemic therapy (MST) for youth offending, psychiatric disorder and substance abuse: Case examples from a UK MST team. *Child and Adolescent Mental Health*, 15, 142 – 149. **MSTS Publication #1050**
  - Tuerk, E. H., McCart, M. R., & Henggeler, S. W. (2012). Collaboration in family therapy. *Journal of Clinical Psychology: In Session*, 68, 168 – 178. **FSRC Publication #471**
  - Ali, R. K., & Bachicha, D. L. (2012). Systemic supervision practices compared: A closer look at 'reflection' and 'self' in multisystemic therapy and family therapy supervision. *Clinical Child Psychology and Psychiatry*, 17, 192 – 207. **MSTS Publication #1072**
  - Ashmore, Z., & Fox, S. (2011). How does the delivery of multisystemic therapy to adolescents and their families challenge practice in traditional services in the Criminal Justice System? *British Journal of Forensic Practice*, 13, 25 – 31.
  - Cunningham, P. B., & Henggeler, S. W. (1999). Engaging multiproblem families in treatment: Lessons learned throughout the development of multisystemic therapy. *Family Process*, 38, 265 – 286. **FSRC Publication #87**
  - Henggeler, S. W. (2017). Commentaries: Psychotherapeutic perspective. In C. A. Galanter & P. S. Jensen (Eds.), *DSM-5 casebook and treatment guide for child mental health* (pp. 148-150). American Psychiatric Publishing. **MSTS Publication #1561**
- 

### MST-PSYCHIATRIC

- Rowland, M. D., Henggeler, S. W., Gordon, A. M., Pickrel, S. G., Cunningham, P. B., & Edwards, J. E. (2000). Adapting multisystemic therapy to serve youth presenting psychiatric emergencies: Two case studies. *Child Psychology & Psychiatry Review*, 5, 30 – 43. **FSRC Publication #96**.
- 

### MST-PROBLEM SEXUAL BEHAVIOR

- Letourneau, E. J., & Schaeffer, C. M. (2014). Multisystemic therapy for youth problem sexual behavior: A case example. In W. O'Donohue (Ed.), *Case studies in sexual deviance: Toward evidence-based practice. International perspectives on forensic mental health* (pp. 17 – 34). New York: Routledge/Taylor and Francis Group. **MSTS Publication #1119**
- 

### MST-CHILD ABUSE AND NEGLECT

- Kamphuis, F. N., Brand-De Wilde, O. M., & Van Der Rijken, R. E. A. (2015). Multisystemic therapy for child abuse and neglect (MST-CAN): Description of the treatment, psychiatric morbidity, and the psychiatrist's role. *Tijdschrift voor Psychiatrie*, 57, 561 – 568. **MSTS Publication #1213**
  - Hefti, S., Perez, T., Furstenau, U., Rhiner, B., Swenson, C. C., & Schmid, M. (2018). Multisystemic therapy for child abuse and neglect: Do parents show improvement in parental mental health problems and parental distress? *Journal of Marital and Family Therapy*, doi:10.1111/jmft.12367. **MSTS Publication #1617**
- 

### MST-AUTISM

- Wagner, D. V., Borduin, C. M., Kanne, S. M., Mazurek, M. O., Farmer, J. E., & Brown, R. M. A. (2014). Multisystemic therapy for disruptive behavior problems in youths with autism spectrum disorders: A progress report. *Journal of Marital & Family Therapy*, 40, 319 – 331. **FSRC Publication #1105**

## MST-EMERGING ADULTS

- Davis, M., Sheidow, A. J., & McCart, M. R. (2015). Reducing recidivism and symptoms in emerging adults with serious mental health conditions and justice system involvement. *Journal of Behavioral Health Services & Research*, 42, 172 – 190. **FSRC Publication #467**
- Sheidow, A. J., McCart, M. R., & Davis, M. (2016). Multisystemic therapy for emerging adults with serious mental illness and justice involvement. *Cognitive and Behavioral Practice*, 23, 356 – 367. **MSTS Publication #1509**

---

## MST-HEALTH CARE

- Ellis, D. A., Naar-King, S., Cunningham, P. B., & Secord, E. (2006). Use of multisystemic therapy to improve antiretroviral adherence and health outcomes in HIV-infected pediatric patients: evaluation of a pilot program. *AIDS Patient Care and STDs*, 20, 112 – 121. **FSRC Publication #272.**
- Cunningham, P. B., Naar-King, S., Ellis, D. A., Pejuan, S., & Secord, E. (2006). Achieving adherence to antiretroviral medications for pediatric HIV disease using an empirically supported treatment: A case report. *Developmental and Behavioral Pediatrics*, 27, 44 – 50. **FSRC Publication #271.**
- Naar-King, S., Ellis, D., Kolmodin, K., Cunningham, P. B., & Secord, E. (2009). Feasibility of adapting multisystemic therapy to improve illness management behaviors and reduce asthma morbidity in high risk African-American youth: A case series. *Journal of Child and Family Studies*, 18, 564 – 573. **FSRC Publication #353.**
- Letourneau, E. J., Ellis, D. A., Naar-King, S., Cunningham, P. B., & Fowler, S. L. (2010). Case study: Multisystemic therapy for adolescents who engage in HIV transmission risk behaviors. *Journal of Pediatric Psychology*, 35, 120 – 127. **FSRC Publication #360.**





## Recent Book Chapters and Reviews Featuring MST

### 2013

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- Bor, W., Stallman, H., Collerson, E., Boyle, C., Swenson, C. C., McDermott, B., & Lee, E. (2013). Therapy implications of child abuse in multi-risk families. *Australasian Psychiatry*, 21, 389 – 392. **MSTS Publication #1086**
- Faniff, A. M., & Becker, J. V. (2013). Adolescents adjudicated for sexual offenses. In D. S. Bromberg & W. T. O'Donohue (Eds.), *Handbook of child and adolescent sexuality: Developmental and forensic psychology* (pp. 519 – 546). San Diego, CA: Elsevier Academic Press. **MSTS Publication #1087**
- Pane, H. T., White, R. S., Nadorff, M. R., Grills-Taquechel, A., & Stanley, M. A. (2013). Multisystemic therapy for child non-externalizing psychological and health problems: A preliminary review. *Clinical Child and Family Psychology Review*, 16, 81 – 99. **MSTS Publication #1600**
- LaFavor, T., & Randall, J. (2013). Multisystemic family therapy. In A. Rambo, C. West, A. Schooley, & T. V. Boyd (Eds.), *Family therapy review: Contrasting contemporary models* (pp. 100 – 103). New York, NY: Routledge/Taylor & Francis. **MSTS Publication #1601**
- Lee, T. G., & Kerns, S. E. U. (2013). Family integrated transitions: A promising program for reducing recidivism in a cost-effective manner. In C. R. Thomas & K. Pope (Eds.), *The origins of antisocial behavior: A developmental perspective* (pp. 219 – 233). New York, NY: Oxford University Press. **MSTS Publication #1602**
- Rambo, A., West, C., Schooley, A., & Boyd, T. V. (2013). A brief history of structural/strategic models. In A. Rambo, C. West, A. Schooley, & T. V. Boyd (Eds.), *Family therapy review: Contrasting contemporary models* (pp. 83 – 85). New York, NY: Routledge/Taylor & Francis. **MSTS Publication #1603**
- Sheidow, A. J., & Houston, J. L. (2013). Multisystemic therapy for adolescent substance use. In P. M. Miller, S. A. Ball, M. E. Bates, A. W. Blume, K. M. Kampman, D. J. Kavanagh, M. E. Larimer, N. M. Petry, & P. De Witte (Eds.), *Comprehensive addictive behaviors and disorders: Interventions for addiction* (Vol. 3) (pp. 77 – 86). San Diego, CA: Elsevier Academic Press. **FSRC Publication #454**

### 2014

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- Ashmore, Z. (2014). Family intervention: Multisystemic therapy. In Z. Ashmore & R. Shuker (Eds.), *Forensic practice in the community* (pp. 194 – 212). Oxon, UK: Routledge. **MSTS Publication #1110**
- May, J., Osmond, K., & Billick, S. (2014). Juvenile delinquency treatment and prevention: A literature review. *Psychiatric Quarterly*, 85, 295 – 301. **MSTS Publication #1111**
- McCart, M. R., Ogden, T., & Henggeler, S. W. (2014). Youth who have broken the law. In G. B. Melton, A. Ben-Arieh, J. Cashmore, G. S. Goodman, & N. K. Worley (Eds.), *The SAGE handbook of child research* (pp. 266 – 284). London, England: Sage Publications. **MSTS Publication #1112**
- McCart, M. R., Schaeffer, C., & Henggeler, S. W. (2014). Conduct disorder and delinquency. In S. G. Hofman (Ed.), *The Wiley-Blackwell handbook of cognitive behavioral therapy* (pp. 797 – 819). Hoboken, NJ: John Wiley & Sons. **MSTS Publication #1113**
- McDougall, T. (2014). Multisystemic therapy. In T. Mougall & A. Cotgrove (Eds.), *Specialist mental healthcare for children and adolescents: Hospital, intensive community and home based services* (pp. 88 – 95). New York, NY: Routledge/Taylor & Francis Group. **MSTS Publication #1114**
- Mullins, L. L., Gillaspay, S. R., Molzon, E. S., & Chaney, J. M. (2014). Parent and family interventions in pediatric psychology: Clinical applications. *Pediatric Review*, 2, 281 – 293. **MSTS Publication #1115**
- Pardini, D. A., Pasalich, D. S., Kimonis, E. R., & McMahon, R. J. (2014). Conduct disorder. In G. O. Gabbard (Ed.), *Gabbard's treatments of psychiatric disorders* (5th ed.) (pp. 739 – 746). Arlington, VA: American Psychiatric Publishing. **MSTS Publication #1116**
- Schoenwald, S. K. (2014). Multisystemic therapy. In J. Ehrenreich-May & B. C. Chu (Eds.), *Transdiagnostic treatments for children and adolescents: Principles and practice* (pp. 313 – 338). New York: Guilford Press. **MSTS Publication #1117**

### 2014 (cont'd.)

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- Swenson, C. C., & Schaeffer, C. M. (2014). MST-CAN: An ecological treatment for families experiencing physical abuse and neglect. In S. Timmer and A. Urquiza (Eds.), *Evidence-based approaches for the treatment of maltreated children: Considering core components and treatment effectiveness* (pp. 237 – 257). Dordrecht, Germany: Springer Science+Business Media. **MSTS Publication #1118**
- Van der Stouwe, T., Asscher, J. J., Stams, G. J. J. M., Dekovic, M., & Van der Laan, P. H. (2014). The effectiveness of multisystemic therapy (MST): A meta-analysis. *Clinical Psychology Review*, 34, 468 – 481. **MSTS Publication #1100**

### 2015

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- Bailey, C., Sehgal, R., Coscia, A., & Shelton, D. (2015). Exploring treatment options for an allegedly 'untreatable' disorder, psychopathy: An integrative literature review. In M. Fitzgerald (Ed.), *Psychopathy: Risk factors, behavioral symptoms and treatment options* (pp. 203 – 219). Hauppauge, NY: Nova Science Publishers. **MSTS Publication #1212**
- Dekovic, M, & Stoltz, S. (2015). Moderators and mediators of treatments for youth who show externalizing problem behavior. In M. Maric, P. J. M. Prins, & T. H. Ollendick (Eds.), *Moderators and mediators of youth treatment outcomes* (pp. 97 –122). New York, NY: Oxford University Press.
- Dopp, A. R., Borduin, C. M., & Brown, C. E. (2015). Evidence-based treatments for juvenile sexual offenders: review and recommendations. *Journal of Aggression, Conflict and Peace Research*, 7, 223 – 236. **MSTS Publication #1106**
- Euser, S., Alink, L. R. A., Stoltenborgh, M., Bakermans-Kranenburg, M. J., & van Ijzendoorn, M. H. (2015). A gloomy picture: a meta-analysis of randomized controlled trials reveals disappointing effectiveness of programs aiming at preventing child maltreatment. *BMC Public Health*, 15:1068. **MSTS Publication #1200**
- Fox, S., & Ashmore, Z. (2015). Multisystemic therapy as an intervention for young people on the edge of care. *British Journal of Social Work*, 35, 1968 – 1984.
- Henggeler, S. W. (2015). Preventing youth violence through therapeutic interventions for high-risk youth. In P. D. Donnelly & C. L. Ward (Eds.), *Oxford textbook of violence prevention: Epidemiology, evidence, and policy* (pp. 161 – 167). Oxford, UK: Oxford University Press. **MSTS Publication #1206**
- Henggeler, S. W. (2015). Effective family-based treatments for adolescents with serious antisocial behavior. In J. Morizot & L. Kazemian (Eds.), *The development of criminal and antisocial behavior: Theory, research, and practical applications* (pp. 461–476). New York, NY: Springer. **MSTS Publication #1207**
- Kazdin, A. E. (2015). Psychosocial treatments for conduct disorder in children and adolescents. In P. E. Nathan & J. M. Gorman (Eds.), *A guide to treatments that work* (pp. 141 – 173). New York, NY: Oxford University Press.
- Leve, L. D. Chamberlain, P., & Kim, H. K. (2015). Risks, outcomes, and evidence-based interventions for girls in the US juvenile justice system. *Clinical Child and Family Psychology Review*, 18, 252 – 279. **MSTS Publication #1209**
- Sawyer, A. M., Borduin, C. M., & Dopp, A. R. (2015). Long-term effects of prevention and treatment on youth antisocial behavior: A meta-analysis. *Clinical Psychology Review*, 42, 130 – 144. **MSTS Publication #1210**
- Waldburg, C. (2015). Adopting a systemic framework. In L. French & R. K. Klein (Eds.), *Therapeutic practice in schools, Volume two: The contemporary adolescent: A clinical workbook for counsellors, psychotherapists and arts therapists* (pp. 190 – 199). New York, NY: Routledge/Taylor & Francis Group.
- Zajac, K., Randall, J., & Swenson, C. C. (2015). Multisystemic therapy for externalizing youth. *Child and Adolescent Psychiatric Clinics of North America*, 24, 601 – 616. **MSTS Publication #1205**

### 2016

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- Borduin, C. M., Dopp, A. R., Borduin, B. J., & Munsch, R. J. (2016). Multisystemic therapy for youths with problem sexual behaviours: Empirical, theoretical, and clinical foundations. In D. P. Boer, L. E. Marshall & W. L. Marshall (Eds.), *The Wiley handbook on the theories, assessment, and treatment of sexual offending* (1st ed., Vol. III Treatment, pp. 1331-1346). New York: John Wiley & Sons. **MSTS Publication #1517**
- Carr, A. (2016). Family therapy for adolescents: A research-informed perspective. *Australian & New Zealand Journal of Family Therapy*, 37, 467-479. **MSTS Publication #1516**
- Farrington, D. P. (2016). Family influences on offending and family-based intervention. In H. Kury, S. Redo, & E. Shea (Eds.), *Women and children as victims and offenders: Background, prevention, reintegration: Suggestions for succeeding generations* (pp. 211 – 237). Cham, Switzerland: Springer International Publishing.
- Henggeler, S. W. (2016). Community-based interventions for juvenile offenders. In K. Heilbrun, D. Dematteo, & N. Goldstein (Eds.), *APA handbook of psychology and juvenile justice* (pp. 575 – 595). Washington, DC: APA Press. **FSRC Publication #470**
- Henggeler, S. W., & Schaeffer, C. M. (2016). Multisystemic therapy: Clinical overview, outcomes, and implementation research. *Family Process*, 55, 514 – 528. **MSTS Publication #1502**
- Horigan, V. E., Anderson, A. R., & Szapocznik, J. (2016). Family-based treatments for adolescent substance use. *Child and Adolescent Psychiatric Clinics*, 25, 603-628. **MSTS Publication #1518**
- Kwok, K. H. R., Yuan, S. N. V., & Ougrin, D. (2016). Review: Alternatives to inpatient care for children and adolescents with mental health disorders. *Child & Adolescent Mental Health*, 21, 3 – 10. **MSTS Publication #1511**
- McCart, M. R. & Sheidow, A. J. (2016). Evidence-Based Psychosocial Treatments for Adolescents With Disruptive Behavior. *Journal of Clinical Child & Adolescent Psychology*, 45, 529-563. **MSTS Publication #1500**
- Richardson, B. (2016). *Working with challenging youth: Seven guiding principles*, 2nd edition. New York, NY: Routledge/Taylor & Francis Group.
- Rogers, K. M., & Al-Mateen, C. S. (2016). Inpatient psychiatric hospitalization. In A. Breland-Noble, C. S. Al-Mateen, & N. N. Singh (Eds.), *Handbook of mental health in African-American youth* (pp. 107 – 120). Cham, Switzerland: Springer International Publishing.
- Schoenwald, S. K. (2016). The multisystemic therapy quality assurance/quality improvement system. In W. O'Donohue & A. Maragakis (Eds.), *Quality improvement in behavioral health* (pp. 169 – 192). Cham, Switzerland: Springer International Publishing. **MSTS Publication #1501**
- Schoenwald, S. K. (2016). Clinical supervision in a quality assurance/quality improvement system: Multisystemic therapy as an example. *The Cognitive Behaviour Therapist*, 9, e21, 1 – 15. **MSTS Publication #1508**
- Schoenwald, S. K., Henggeler, S. W., & Rowland, M. D. (2016). Multisystemic therapy. In T. L. Sexton & J. Lebow (Eds.), *Handbook of family therapy*, 4th edition (pp. 271 – 285). New York, NY: Routledge/Taylor & Francis Group.
- Simon, D. J. (2016). Afterword: Comprehensive multitiered services in schools. In D. J. Simon (Ed.), *School-centered interventions: Evidence-based strategies for social, emotional, and academic success* (pp. 257 – 266). Washington, DC: American Psychological Association.

# Recent Book Chapters and Reviews Featuring MST

## 2017

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- Dopp, A. R., Borduin, C. M., Rothman, D. B., & Letourneau, E. J. (2017). Evidence-based treatments for youths who engage in illegal sexual behaviors. *Journal of Clinical Child & Adolescent Psychology*, 46, 631-645. **MSTS Publication #1555**
- Dopp, A. R., Borduin, C. M., White, M. H., & Kuppens, S. (2017). Family-based treatments for serious juvenile offenders: A multilevel meta-analysis. *Journal of Consulting and Clinical Psychology*, 85, 335-354. **MSTS Publication #1556**
- Henggeler, S. W., & Schaeffer, C. (2017). Treating serious antisocial behavior using multisystemic therapy. In J. R. Weisz & A. E. Kazdin (Eds.), *Evidence-based psychotherapies for children and adolescents*, 3rd edition (pp. 197-214). New York: Guilford Press. **MSTS Publication #1562**
- Riedinger, V., Piquart, M., & Teubert, D. (2017). Effects of systemic therapy on mental health of children and adolescents: A meta-analysis. *Journal of Clinical Child & Adolescent Psychology*, 46, 880-894. **MSTS Publication #1569**
- Sim, T., & Chao, W. (2017). Special issue: double joy – Asian Chinese families and Multisystemic Therapy (MST). *Journal of Family Therapy*, 39, 129-130. **MSTS Publication #1570**
- Tan, J. X., Fajardo, M. L. R. (2017). Efficacy of multisystemic therapy in youths aged 10-17 with severe antisocial behaviour and emotional disorders: systematic review. *London Journal of Primary Care*, 9, 95-103. **MSTS Publication #1577**

## 2018

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- Blackley, R., & Bartels, L. (2018). Sentencing and treatment of juvenile sex offenders in Australia. Trends & issues in crime and criminal justice, No. 555. Australian Government: Australian Institute of Criminology. **MSTS Publication #1618**
- Bolin, R. M. (2018). Juvenile offenders: Diverting youth and utilizing evidence-based practices. In K. D. Dodson (Ed.), *Routledge handbook on offenders with special needs*. New York: Routledge. **MSTS Publication #1619**
- Dauria, E. F., McWilliams, M. A., & Tolou-Shams, M. (2018). Substance use prevention and treatment interventions for court-involved, non-incarcerated youth. In P. M. Monti, S. M. Colby, & T. O'Leary Tevyaw (Eds.), *Brief interventions for adolescent alcohol and substance abuse* (pp. 213-241). New York: Guilford Press. **MSTS Publication #1620**
- Dopp, A. R., Smith, A. B., Berman, I. S., & Hill, M. A. (2018). Family-and community-based treatments. In M. M. Martel (Ed.), *Developmental pathways to disruptive, impulse-control and conduct disorders* (pp. 263-295). Amsterdam, Netherlands: Elsevier. **MSTS Publication #1621**
- Firmin, C. (2018). Contextual risk, individualized responses: An assessment of safeguarding responses to nine cases of peer-on-peer abuse. *Child Abuse Review*, 27, 42-57. **MSTS Publication #1622**
- Gagnon, J. C. (2018). Making the right turn: A research update on prevention and diversion for justice involved youth. Washington DC: National Collaborative on Workforce & Disability for Youth. **MSTS Publication #1623**
- Holly, L. E., Stoll, R. D., Rapp, A. M., Pina, A. A., & Chavira, D. A. (2018). Psychosocial treatments that “work” for ethnic minority youth. In T. H. Ollendick, S. W. White, & B. A. White (Eds.), *The Oxford handbook of clinical child and adolescent psychology*. Oxford, UK: Oxford University Press. **MSTS Publication #1624**
- Jones, E., Huey, S. J. Jr., & Rubenson, M. (2018). Cultural competence in therapy with African Americans (pp. 557-573). In C. L. Frisby & W. T. O'Donohue (Eds.), *Cultural competence in applied psychology: An evaluation of current status and future directions*. Switzerland: Springer International Publishing. **MSTS Publication #1625**
- Markham, A. (2018). A review following systematic principles of multisystemic therapy for antisocial behavior in adolescents aged 10-17 years. *Adolescent Research Review*, 3, 67-93. **MSTS Publication #1626**
- Moffett, S., Brotnow, L., Patel, A., Adnopoz, J., & Woolston, J. (2018). Intensive home-based programs for youth with serious emotional disturbances: A comprehensive review of experimental findings. *Children and Youth Services Review*, 85, 319-325. **MSTS Publication #1627**
- Ogbuagu, B. C. (2018). Black, young & conduct disordered: Extrapolating Scott Henggeler's multisystemic psychotherapy paradigm for the attenuation of at-risk behaviors of black youth in North America. *European Scientific Journal*, 14, 89-120. **MSTS Publication #1628**



### 2018 (cont'd.)

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- Ter Beek, E., Spruit, A., Kuiper, C. H. Z., van der Rijken, R. E. A., Hendriks, J., & Stams, G. J. J. M. (2018). Treatment effect on recidivism for juveniles who have sexually offended: A multilevel meta-analysis. *Journal of Abnormal Child Psychology*, 46, 543-556. **MSTS Publication #1629**
- Swenson, C. C., & Schaeffer, C. M. (2018). A multisystemic approach to the prevention and treatment of child abuse and neglect. *International Journal on Child Maltreatment Research, Policy and Practice*, 1, 97-120. **MSTS Publication #1630**
- Van der Put, C. E., Assink, M., Gubbels, J., & van Solinge, N. F. B. (2018). Identifying effective components of child maltreatment interventions: A meta-analysis. *Clinical Child and Family Psychology Review*, 21, 171-202. **MSTS Publication #1631**
- Winters, K. C., Botzet, A. M., Stinchfield, R., Gonzales-Castaneda, R., Finch, A. J., Piehler, T. F., Ausherbauer, K., Chalmers, K., & Hemze, A. (2018). Adolescent substance abuse treatment: A review of evidence-based research (pp. 141-171). In C. G. Leukefeld & T. P. Gullotta (Eds.), *Adolescent substance abuse, issues in children's and families' lives*. Berlin, Germany: Springer Science + Business Media. **MSTS Publication #1632**

### 2019

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- Henggeler, S. W. (2019a). Multisystemic family therapy. In J. L. Lebow, A. Chambers, & D. C. Breunlin (Eds.), *Encyclopedia of couple and family therapy*. Switzerland: Springer International Publishing. **MSTS Publication #1650**
- Henggeler, S. W. (2019b). Conduct disorders in couple and family therapy. In J. L. Lebow, A. Chambers, & D. C. Breunlin (Eds.), *Encyclopedia of couple and family therapy*. Switzerland: Springer International Publishing. **MSTS Publication #1651**
- Henggeler, S. W., & Schaeffer, C. M. (2019). Multisystemic therapy: Clinical procedures, outcomes, and implementation research. In B. H. Friese (Editor-in-chief), *APA Handbook of contemporary family psychology: Vol. 3. Family therapy and training*. Washington, DC: American Psychological Association. **MSTS Publication #1652**





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