Foundations
What Works Centre for Children & Families

Last reviewed: September 2017

Intervention website: http://www.mstcan.com

GUIDEBOOK INTERVENTION INFORMATION SHEET

Multisystemic Therapy for Child Abuse and Neglect

Please note that in the 'Intervention summary' table below, 'child age', 'level of need', and 'race and ethnicities' information is **as evaluated in studies**. Information in other fields describes the intervention as **offered/supported by the intervention provider**.

Intervention summary	
Description	Multisystemic Therapy for Child Abuse and Neglect (MST-CAN) is an intensive intervention for families who have recently been reported to Child Protection Services for physically abusing and/or neglecting a child between the ages of 6 and 17. An MST-trained social worker or psychologist provides home-based therapeutic support to individual families for a four to six-month period with the aim of keeping children safe and stopping physically and emotionally abusive or neglectful parenting behaviours.
Evidence rating	3
Cost rating	5
Child outcomes	• Supporting children's mental health and wellbeing - Improved mental health. • Preventing crime, violence and anti-social behaviour - Improved behaviour. • Preventing child maltreatment - Increased placement stability - Reduced need for out-of-home placements - Reduced child maltreatment potential.
Child age (Population characteristic)	6 to 17 years

Intervention summary	
Level of need (Population characteristic)	Targeted Indicated
Race and ethnicities (Population characteristic)	• African American • White American.
Type (model characteristic)	Individual
Setting (model characteristic)	• Home • Outpatient setting.
Workforce (model characteristic)	• Psychologist • Social worker.
UK available?	Yes
UK tested?	No

Model description

Multisystemic Therapy for Child Abuse and Neglect (MST-CAN) is an intensive intervention for families who have recently been reported to Child Protection Services for physically abusing and/or neglecting a child between the ages of 6 and 17.

MST-CAN is delivered by an MST-CAN therapist (typically a social worker with a master's level qualification) who provides the family with a tailored package of support that includes individual and family support and therapy. The therapist is available to the family on a 24/7 basis and carries a caseload of three to four families at a time. Therapists typically work with families for an average of six to nine months, and commonly see families around three times a week, although these visits will vary according to the level of need. A hybrid model of support delivered by keyworkers is also available in cases that are less severe, including those involving unsubstantiated neglect.

Referrals typically come from child protection services following concerns involving abuse or neglect occurring within the past 180 days. Child protection first contacts the family to ensure that the family is in agreement with the referral, and then refers the family to the MST team.

Within 48 hours of acceptance of the referral, the MST-CAN supervisor or the therapist assigned to the case will contact the family to explain the treatment and invite them to participate. When parents agree, a detailed intake assessment begins, which is carried out over a series of visits to the family's home.

The primary aim of the first session is to engage family members and establish a collaborative partnership between the MST therapist, child protection services and the family. In some cases, it will become clear that the family is in crisis, so the first priority is to stabilise the family situation. If the child is out of the home at the time of referral, the MST-CAN worker will meet with foster parents or kinship carers to make sure that the child's placement is stabilised until the child can return home.

A second aim of the initial sessions is to gain an understanding of the severity of the family's circumstances and the multiple risks that may be contributing to the maltreating behaviour. This understanding is gained through meetings with child protection services, as well as meetings with the family.

At the beginning of the intervention, the MST-CAN worker and family work collaboratively to identify family-specific goals for positive change. These goals should be clearly linked to parenting behaviours that would be considered abusive and neglectful, with a primary aim of increasing the child's safety. In the short term, it is expected that:

- The parent will no longer abuse or neglect the child
- There will no longer be a need for an out-of-home placement
- The child will live in a safer home environment
- Any family crises will be stabilised
- Parents will use more effective parenting skills
- Family relationships will improve
- The family will have improved their network of informal supports
- The child and parent's mental wellbeing will improve.

By the conclusion of the intervention, it is expected that:

- Abuse and neglect will be eliminated
- Out-of-home placements will be prevented
- There will be improvements in parental mental health functioning
- There will be observable improvements in parenting behaviours.

MST-CAN therapists are trained and supervised to identify the risks associated with abuse and neglect, and are thus able to tailor the intervention to directly address these risks. MST therapists are also trained to treat a wide variety of mental health problems experienced by children and adults. MST teams are embedded well within the local system so that additional treatments,

including pharmaceutical treatments prescribed by the NHS, can be used to address specific mental health conditions.

Target population

Age of child	6 to 17 years
Target population	Families who have recently been reported to Child Protection Services for physically abusing and/or neglecting a child between the ages of 6 and 17

Please note that in the 'Intervention summary' table below, 'child age', 'level of need', and 'race and ethnicities' information is **as evaluated in studies**. Information in other fields describes the intervention as **offered/supported by the intervention provider**.

Theory of change

Why		Who	How	What		
Science-based assumption	**Science-based assumption**	**Science-based assumption**	**Intervention**	**Short-term outcomes**	**Medium-term outcomes**	**Long-term outcomes**
Child maltreatment is a major public health concern that is associated with a broad array of adverse short- and long-term outcomes for children.	Child maltreatment is multi-determined by risks associated with the child, family, school, and community.	Families where there are serious concerns about a child's physical and emotional welfare.	MST-CAN therapists help families identify strengths within the family system to help them manage the multiple risks that are contributing to the maltreating behaviours.	• Maltreating parent behaviours stop • Child safety and stability in the home increases • Child wellbeing improves.	• Reduced child maltreatment risk and recidivism • Reduced need for out-of-home placement • Reduced risk of child behavioural problems and other adverse child outcomes.	• Increased wellbeing throughout childhood • Improved life chances in adulthood.

Implementation requirements

Who is eligible?	Families who have recently been reported to Child Protection Services for physically abusing and/or neglecting a child between the ages of 6 and 17.
How is it delivered?	• MST-CAN is delivered by a therapist individually to families in their homes. • Therapists are available 24/7 to the family and carry a caseload of three to four families at a time. • Therapy sessions typically last between 50 minutes and two hours. • The frequency of the sessions vary, depending on the needs of the family and the stage of the treatment, typically ranging from three days a week to daily. • Therapists work with individual families for an average of six to nine months.
What happens during the intervention?	The MST-CAN therapist works closely with his or her MST-CAN expert, supervisor, and family to find a good 'fit' between the family's issues and tailored strategies. This includes identifying barriers to the success of the intervention (e.g. parental substance misuse or mental health problems) and developing methods for removing these barriers. A key aim of the intervention is to help families assume greater responsibility for their behaviours and actively work to resolve serious family issues.
Who can deliver it?	MST-CAN therapists typically have a master's qualification or higher in social work or clinical psychology.
What are the training requirements?	Practitioners have 104 total hours of intervention training. Booster training of practitioners is recommended.
How are practitioners supervised?	• It is recommended that practitioners are supervised by one host-agency supervisors with 120 hours of MST-CAN training. • It is recommended that practitioners are supervised by one of the intervention developer supervisors.
What are the systems for maintaining fidelity?	Intervention fidelity is maintained through the following processes: • Training manual • Other printed material • Other online material • Video or DVD training • Face-to-face training • Fidelity monitoring.

Implementation requirements (cont.)

Is there a licensing requirement?	Yes
***Contact details**	Contact person: Cathy James Email address: cathy.james@kcl.ac.uk Website/s: https://www.mstukandireland.org/ www.mstservices.com *Please note that this information may not be up to date. In this case, please visit the listed intervention website for up to date contact details.

Evidence summary

The most rigorous evidence for MST-CAN comes from a single RCT conducted in the United States, consistent with Foundations' Level 3 evidence strength criteria. This study observed statistically significant improvements in children's placement stability, the need for out-of-home placements, mental health, behaviour, and child maltreatment risk.

Child outcomes			
Outcome	**Improvement index**	**Interpretation**	**Study**
Reduced symptoms of child PTSD	+21	1.43 point improvement on the Administrative data from the Child Protective Services (between the end of the intervention and 10 months later).	1
Reduced symptoms of child PTSD	+25	0.25 point improvement on the Trauma Symptom Checklist for Children (between the end of the intervention and 10 months later).	1

Reduced child dissociative symptoms	+27	0.94 point improvement on the Trauma Symptom Checklist for Children (between the end of the intervention and 10 months later).	1
Reduced Internalising symptoms	+26	2.13 point improvement on The Child Behaviour Checklist (Parent report) (between the end of the intervention and 10 months later).	1
Reduced neglect	+31	0.18 point improvement on the Conflict Tactic Scale (Child report) (between the end of the intervention and 10 months later).	1
Reduced neglect	+11	0.04 point improvement on the Conflict Tactic Scale (Parent report) (between the end of the intervention and 10 months later).	1
Reduced psychological aggression	+8	0.03 point improvement on the Conflict Tactic Scale (Child report) (between the end of the intervention and 10 months later).	1
Reduced minor assault	+6	0.02 point improvement on the Conflict Tactic Scale (Child report) (between the end of the intervention and 10 months later).	1
Reduced severe assault	+21	0.34 point improvement on the Conflict Tactic Scale (Child report) (between the end of the intervention and 10 months later).	1
Reduced severe assault	+22	0.15 point improvement on the Conflict Tactic Scale (Parent report) (between the end of the intervention and 10 months later).	1
Reduced non-violent discipline	+8	0.02 point improvement on the Conflict Tactic Scale	1

		(Child report) (between the end of the intervention and 10 months later).	
Reduced non-violent discipline	+22	0.04 point improvement on the Conflict Tactic Scale (Parent report) (between the end of the intervention and 10 months later).	1
Increased placement stability	+8	0.18 point improvement on the administrative data from the Child Protective Services (between the end of the intervention and 10 months later).	1
Reduced total problem behaviours	+30	3.50 point improvement on The Child Behaviour Checklist (Parent report) (between the end of the intervention and 10 months later).	1

Search and review

	Number of studies
Identified in search	5
Studies reviewed	1
Meeting the L2 threshold	0
Meeting the L3 threshold	1
Contributing to the L4 threshold	0
Ineligible	4

Individual study summary: Study 1

Study 1	
Study design	RCT
Country	United States
Sample characteristics	90 parent–child dyads in families with a child between the ages of 6 and 17
Race, ethnicities, and nationalities	• 68.6% African American • 22.1% White American • 9.3% Other.
Population risk factors	• 58.1% were single parents • More than 80% of the abuse incidents included at least minor injuries • 23.3% had a prior Child Protective Services report.
Timing	2, 4, 10, 16 months post-baseline
Child outcomes	*16-months post-baseline (Change over time)* • Improved children's behavioural functioning (Parent report) • Reduced internalising behaviours (Parent report) • Reduced PTSD (Parent and Child report) • Reduced youth-reported dissociative symptoms (Youth report) • Reduced neglect (Child report) • Reduced neglect (Parent report) • Reduced psychological aggression (Youth report) • Reduced minor assault (Child report) • Reduced severe assault (Child report) • Reduced severe assault (Child report) • Reduced out of home placement and placement changes (administrative record).
Other outcomes	• Reduced parent psychiatric distress (Parent report) • Decreased use of nonviolent discipline (Child report) • Decreased use of nonviolent discipline (Parent report) • Improved social support for parents (Parent report) • Improved social support for parents – Appraisal (Parent report) • Improved social support for parents – Belonging social support (Parent report).
Study Rating	3

Study 1	
Citation/s	Swenson, C. C., Schaeffer, C. M., 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 (4), 497.

Brief summary

Population characteristics

This study involved a sample of 90 families living in the vicinity of Charleston, South Carolina, where child protection concerns were raised about a child between the ages of 6 and 17. More than 80% of the abuse incidents included at least minor injuries. 23.3% had a prior Child Protective Services report.

56% of the children represented were girls and 44% boys. 68.6% families were black, 22.1% were White and 9.3% belonged to other categories. 58.1% were single parents. 43% of the children resided with their biological mother and 25% with their biological father. The remaining 32% were with a caregiver who was not their biological parent.

Study design

45 parent–child dyads in families were randomly assigned to MST-CAN and 45 to Enhanced Outpatient Treatment (EOT) through a computer-generated table of random numbers. Baseline characteristics were the same for both groups.

EOT included the standard child welfare support provided for physically abused children and their parents that was enhanced through increased parental engagement and a structured parent training intervention. Additional support from other services (included GPs, psychiatrists, and substance misuse support) was provided to families as needed.

Measurement

Assessments took place at baseline (pre-intervention) and at 2, 4, 10, and 16 months thereafter.

- **Child report** measures included the youth report of the Conflict Tactics Scale (CTS).
- **Parent report** measure included the parent version of the Child Behavior Checklist (CBCL), the Global Severity Index (GSI) of the Brief Symptom Inventory (BSI), the parent report of the Conflict Tactics Scale (CTS), and the Support Evaluation List (ISEL).
- **Administrative records** included official child protection reports of abuse and out-of-home placements. Service records of parents' access to substance abuse treatment and mental health support was also collected.

Study retention

Two-month assessment

96% (86) of the sample completed measures at the two-month assessment. This included 98% (44) of those receiving MST-CAN and 93% (42) of those allocated to EOT.

Four-month assessment

96% (86) of the sample completed measures at the four-month assessment. This included 98% (44) of those receiving MST-CAN and 93% (42) of those allocated to EOT.

10-month assessment

92% (83) of the sample completed measures at the 10-month assessment, including 96% (43) of those allocated to MST-CAN and 89% (40) of those allocated to EOT.

16-month assessment

92% (83) of the sample completed measures at the 16-month assessment, including 96% (43) of those allocated to MST-CAN and 89% (40) of those allocated to EOT.

Administrative records involving placement stability and child abuse recidivism were available at all time points.

Results

Data-analytic plan

Latent growth curve modelling (LGM) was used to assess intervention effects over 16 months post-baseline on self-report measures, with intent-to-treat, imputing for missing data to analyse the full sample.

Findings

The study observed consistent, statistically significant benefits favouring MST-CAN families, including improvements in parents' perceptions of their child's behavioural and emotional wellbeing, reductions in symptoms of trauma, as reported by children, and improvements in parents' perceptions of their own parenting behaviours. Additionally, children reported reductions in parenting behaviours that would be considered neglectful and physically and emotional aggressive.

The study also observed a statistically significant reduced number of out-of-home placements in families receiving MST-CAN, as well as increased placement stability. However, there were no differences between the MST-CAN and enhanced treatment groups in terms of reports of re-abuse.

Study 1: Outcomes table

Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Child outcomes					
Children's behavioural functioning	Child Behaviour Checklist (CBCL) (Parent report)	d = 0.85	Yes	86	16 months post-baseline
Internalising behaviours	Child Behaviour Checklist (CBCL) (Parent report)	d = 0.71	Yes	86	16 months post-baseline
Externalising behaviours	Child Behaviour Checklist (CBCL) (Parent report)	Not reported	No	86	16 months post-baseline
PTSD	Child Behaviour Checklist (CBCL) (Parent report)	d = 0.55	Yes	86	16 months post-baseline
PTSD	Trauma Symptom Checklist for Children (Child report)	d = 0.68	Yes	86	16 months post-baseline
Youth-reported dissociative symptoms	Trauma Symptom Checklist for Children (Child report)	d = 0.73	Yes	86	16 months post-baseline
Anger	Trauma Symptom Checklist for Children (Child report)	Not reported	No	86	16 months post-baseline

Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Anxiety	Trauma Symptom Checklist for Children (Child report)	Not reported	No	86	16 months post-baseline
Youth social skills	Social Skills Rating System (Parent report)	N/A	No	86	16 months post-baseline
Parent outcomes					
Parent psychiatric distress	Global Severity Index (GSI) of the Brief Symptom Inventory (BSI) (Parent report)	d = 0.63	Yes	86	16 months post-baseline
Parent number of symptoms	BSI Positive Symptom Total Scale (PST) (Parent report)	Not reported	No	86	16 months post-baseline
Neglect	Conflict Tactics Scale (Child report)	d = 0.89	Yes	86	16 months post-baseline
Neglect	Conflict Tactics Scale (Parent report)	d = 0.28	Yes	86	16 months post-baseline
Psychological aggression	Conflict Tactics Scale (Child report)	d = 0.21	Yes	86	16 months post-baseline

Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Psychological aggression	Conflict Tactics Scale (Parent report)	Not reported	No	86	16 months post-baseline
Minor assault	Conflict Tactics Scale (Child report)	d = 0.14	Yes	86	16 months post-baseline
Minor assault	Conflict Tactics Scale (Parent report)	Not reported	No	86	16 months post-baseline
Severe assault	Conflict Tactics Scale (Child report)	d = 0.54	Yes	86	16 months post-baseline
Severe assault	Conflict Tactics Scale (Parent report	d = 0.57	Yes	86	16 months post-baseline
Decrease use of nonviolent discipline	Conflict Tactics Scale (Child report)	d = 0.20	Yes	86	16 months post-baseline
Decrease use of nonviolent discipline	Conflict Tactics Scale (Parent report)	d = 0.57	Yes	86	16 months post-baseline
Social support for parents	Interpersonal Support Evaluation List ISEL (Parent report)	d = 0.46	Yes	86	16 months post-baseline

Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Social support for parents – Appraisal	Interpersonal Support Evaluation List ISEL (Parent report)	d = 0.67	Yes	86	16 months post-baseline
Social support for parents – Belong social support	Interpersonal Support Evaluation List ISEL (Parent report)	d = 0.57	Yes	86	16 months post-baseline
Administrative records					
Abuse of any child by the target parent)	Child protection records	N/A	No	86	16 months post-baseline
Out-of-home placements	Child protection records	d = 0.21	Yes	86	16 months post-baseline
Placement changes	Child protection records	Not reported	Yes	86	16 months post-baseline
Additional service use	Service utilisation record (Parent report)	N/A	No	86	16 months post-baseline

Other studies

The following studies were identified for this intervention but did not count towards the intervention's overall evidence rating. An intervention receives the same rating as its most robust study or studies.

Brunk, M. A., Henggeler, S. W. & Whelan, J. P. (1987) Comparison of multisystemic therapy and parent training in the brief treatment of child abuse and neglect. *Journal of Consulting and Clinical Psychology*. 55 (2), 171–178.

Schaeffer, C. M., Swenson, C. C., Tuerk, E. H. & Henggeler, S. W. (2013) Comprehensive treatment for co-occuring child maltreatment and parental substance abuse: Outcomes from a 24-month pilot study of the MST-Building Stronger Families programme. Child Abuse & Neglect. 37 (8), 596–60

Stallman, H. M., Walmsley, K. E., Bor, W., Collerson, M. E., Swenson, C. C. & McDermott., B. (2010) New directions in treatment of child physical abuse and neglect in Australia: MST CAN: A case study. *Advances in Mental Health*. 9 (2), 148–161.

Swenson, C. C., Schaeffer, C. M., Tuerk, E. H., Henggeler, S. W., Tuten, M., Panzarella, P., Lau, C., Remmele, L., Foley, T., Cannata, E. & Albert Guillorn, A. (2009) *Adapting Multisystemic Therapy for co-occurring child maltreatment and parental substance abuse: The Building Stronger Families Project*. Foundations.

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Note on provider involvement: This provider has agreed to Foundations' terms of reference (or the Early Intervention Foundation's terms of reference), and the assessment has been conducted and published with the full cooperation of the intervention provider.