

Pilot Studies to Large Scale Dissemination: The Progression of MST Adaptations

The purpose of this outline is to describe the general process by which standard MST (Henggeler et al., 1998) is adapted for use with other challenging clinical problems and eventually transported to community-based MST programs. The usual path to dissemination is as follows:

Adaptation Pilot >> Efficacy Trial(s) >> Effectiveness Trial(s) >> Transportability Pilots >> Mature Transport >> Proactive Dissemination

In the case of MST for serious juvenile offenders, for example, the initial pilot study was conducted by Henggeler in Memphis. The success of this work led to efficacy research conducted by Borduin in Missouri and effectiveness trials conducted by Henggeler in South Carolina. Success here led to early dissemination efforts (i.e., transportability pilots). Lessons learned from these early dissemination attempts have informed the large scale dissemination work of MST Services as well as the important independent replications of Leschied in Canada, Ogden in Norway, and Timmons-Mitchell in Ohio. The entire process took more than 20 years to complete!

As the effectiveness of MST in treating serious juvenile offenders became known to the larger practice and research communities in the 1990s, several groups of investigators have used standard MST as a platform for the development of adaptations to treat other serious clinical problems, including psychiatric problems, child abuse and neglect, substance abuse, problem sexual behaviors, and health care conditions such as diabetes, HIV infection, and obesity. Importantly, and as described next, each of these adaptations is progressing along the pilot study to dissemination continuum noted above. Although this carefully reasoned process will hopefully take fewer than 20 years to complete, we are primarily concerned with developing effective and sustainable interventions.

Adaptation Pilot Studies

In cases where adaptations to the standard MST model might produce an effective intervention for a challenging clinical problem, relatively low cost pilot research is conducted to determine the feasibility and preliminary effects of the adaptation. Ellis and Naar-King have conducted a number of pilots on adaptations for youth failing to adhere to medical health care recommendations (MST-HC) in a number of domains such as treating poorly controlled type 1 diabetes, obesity, asthma and HIV+ youths. Similarly, the Building Stronger Families Project, currently being piloted in Connecticut, is integrating MST-CAN and Reinforcement Based Therapy (RBT), which is an evidence-based treatment of parental substance abuse. If outcomes from the pilot are favorable, such work is used to support efforts to obtain funding for a more rigorous evaluation of the MST adaptation. Importantly, for reasons of program fidelity, all research on MST adaptations includes researchers who developed the adaptations.

Efficacy Trials

The purpose of a controlled efficacy trial is to determine whether the adaptation can achieve desired clinical outcomes under relatively favorable intervention conditions. Thus, for

example, Borduin's efficacy trials have included him as the clinical supervisor and highly qualified doctoral students as the therapists within a university-based program. Likewise, Rowland's adaptations for psychiatric problems included considerable supervision from MST-trained psychiatrists at the Family Services Research Center. If results from the efficacy trials are positive, the adaptation is ready for rigorous evaluation in community treatment settings.

Effectiveness Trials

The purpose of controlled effectiveness trials is to examine the effectiveness of the adaptation in more usual practice settings and to identify barriers to such effectiveness. For example, Swenson has recently examined the effectiveness of MST-CAN provided by an MST team based in a community mental health center, and Bor and McDermott are conducting an effectiveness replication in Australia. Similarly, an effectiveness trial for psychiatric problems was recently completed in Hawaii, and an effectiveness trial for problem sexual behavior is currently being conducted in Chicago.

Transportability Pilots

The purpose of the transportability pilots is to test the feasibility of the adaptation in several MST community programs. The pilots are kept very structured, under close oversight by adaptation developers (e.g., Swenson for MST-CAN, Borduin for problem sexual behavior, Rowland for psychiatric problems), and, if appropriate, protocols for broader dissemination are developed under the leadership of MST Services.

Mature Transport

As with MST for serious juvenile offenders, broader dissemination of the adaptation will occur when (a) we are reasonably confident that the intervention protocols will achieve the desired outcomes if implemented with fidelity, and (b) the training and quality assurance procedures are sufficient to support the effective implementation of the intervention protocols. The transport experts, MST Services and its Network Partners, take the lead in national and international transport and implementation efforts.

Proactive Dissemination

The objective of dissemination strategies is to cultivate awareness of and interest in using a product or service. For MST and other evidence-based mental health and substance abuse treatments, the development/evaluation of effective strategies to proactively disseminate the model (that is, to encourage adoption of the model) is in its infancy.

See status of MST and Adaptations on back >>>



Pilot Studies to Large Scale Dissemination: Stages of Development

	Adaptation Pilot	Efficacy Trial	Effectiveness Trial	Transportability Pilot	Mature Transport 2nd Gen.	Mature Transport 3rd Gen.	Proactive Dissemination
Purpose of stage	Demonstrate viability	Scientific validation: "university/ideal" conditions	Scientific validation: "clinic/usual care" conditions	Transition from "science" to "practice"	Replicability: multi-site replication	Broad scale use	Identify and address barriers to adoption
Research context	Model/Adaptation Development Research			Experimental Phase— collaborative effort between "purveyor" and research organizations	Real World Use and Application (including implementation research agendas)		Pilot and Experimental Phase—TBD
Expert "in charge" of implementation	Model/Adaptation Developer			2nd generation expert supported by Developer*	2nd generation expert*	3rd generation expert**	TBD
Est. time in stage	2-3 years	0-5 years	3-5 years	2-3 years	2-3 years	On-going	On-going
Main question examined in each stage	Feasibility: Can the adaptation be specified and shown to be safe and viable?	Can outcomes be achieved under "university/ideal" implementation conditions?	Can outcomes be achieved under "clinic/usual care" implementation conditions?	Can we develop/train a 2nd generation expert in the model/adaptation?*	Can we replicate more broadly 2nd generation transport with adherence to model/adaptation and high quality outcomes?*	Can 3rd gen. experts also transport the model/adaptation with model adherence and high quality outcomes?*	How do we get more organizations and service systems to adopt the model/adaptation?
What is required to move into this stage?	Support of the adaptation concept by members of the research community.	Developer support and funding for rigorous evaluation.	Developer support and funding for rigorous evaluation in a "real world" implementation site.	Scientific validation, in at least 2 settings, of the effectiveness of the adaptation.	Evidence that a second generation expert in the adaptation can lead replication.*	Evidence that many experts in the adaptation can be trained effectively to lead replication efforts.	Strategies to get organizations, payors, clinicians, consumers to adopt the model and test which strategies promote adoption.
What comes next after this stage?	Randomized trial/evaluation	Evaluation in more "real world" settings	Moving beyond developer's direct control	Multi-site replication	Broad scale use	Model becomes part of "usual services"	Greater number of systems implement model

1st generation = model/adaptation developers; *2nd generation = experts trained directly by the model/adaptation developers; **3rd generation = experts trained by 2nd generation experts and not directly associated with the model/adaptation developers

Status of MST and Adaptations as of 1/07

	Adaptation Pilot	Efficacy Trial(s)	Effectiveness Trial(s)	Transportability Pilots	Mature Transport 2nd Generation	Mature Transport 3rd Generation	Proactive Dissemination
Serious Juvenile Offenders (MST)							
Problem Sexual Behavior (MST-PSB)							
Psychiatric Problems (MST-Psychiatric)							
Child Abuse and Neglect (MST-CAN)							
Contingency Management (MST-CM)							
Juvenile Diabetes/Health care (MST-HC)							
Drug Court (MST-Drug Court)							
Family Integrated Transition (MST-FIT)							
Building Strong Families (MST-BSF)							
HIV/Health care (MST-HC)							
Extended Care (MST-EC)							
BlueSky							

