Multisystemic Therapy as an Alternative Community-Based Treatment for Youth With Severe Emotional Disturbance: Empirical Literature Review

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According to the New Freedom Commission report (2003), the mental health system for children is very fragmented. Gaps of knowledge exist of effective, culturally competent, community-based services for children and adolescents with a serious emotional disturbance. Multisystemic therapy (MST) stands out as a culturally competent home-based service with strong empirical evidence for treating youth in the juvenile justice system and may have promise for treating youth with a serious emotional disturbance in the community mental health system. This article will present the theoretical basis of MST, program design, and service provision. A review and critique of the empirical literature on MST will be presented. Finally, implications for social work practice and research with children and adolescents in the community mental health system are discussed.

KEYWORDS Evidence-based, multisystemic therapy, serious emotional disturbance, child and adolescent mental health, community mental health

The research on effective treatment for children with mental health disorders has greatly expanded over the past several years. However, the vast amount of the research has not been conducted in the home and community setting where children reside (Burns, Hoagwood, & Mrazek, 1999) nor
with multi-problem families. The typical child or adolescent presenting to community mental health centers often presents with a higher co-morbidity and greater clinical severity of symptoms than youth in clinical trials (Weisz, Huey, & Weersing, 1998). Little empirical research exists on interventions addressing co-morbidity or that combine treatments to address the multiple antecedents of mental health (Zaff, Calkins, Bridges, & Margie, 2002).

The President’s New Freedom Commission (2003) reported children’s mental health to be a public health crisis. This is quite disturbing as an estimated 1 in 10 children and adolescents in the United States suffer from a serious mental illness resulting in significant impairments across all aspects of their lives (National Advisory Mental Health Council Workgroup on Child and Adolescent mental Health Intervention Development and Deployment, 2001). According to the New Freedom Commission report, the mental health system for children is very fragmented. Gaps of knowledge exist of effective, culturally competent, community-based services for children and adolescents with a serious emotional disturbance. Further, there is great disparity between the evidence-base of effective community-based treatments for youth with mental health disorders and the treatments that are available to them (Weisz, 2000). Not providing appropriate community mental health services to these youth can have profound consequences. Some families have relinquished custody of their children to the Juvenile Justice System in order to access needed mental health services (Texas Institute for Health Policy Research, 2003). The National Advisory Mental Health Council Workgroup on Child and Adolescent mental Health Intervention Development and Deployment (2001) reported that an estimated 36% of youth involved in the juvenile system nationally became involved due to inadequate or unavailable mental health services. Children of color living in poverty are at a higher risk of not receiving appropriate, adequate care than other youth (Gonzalez, 2005).

Three integrated service modalities for treating youth with a severe emotional disturbance examined in the literature are intensive case management, treatment foster care, and home-based services (Hoagwood, 2001; Burns et al., 1999). Case management research is very limited and has mixed results. Treatment Foster Care research looks promising; however, youth are placed in foster care homes for treatment. Much of the research on home-based services has been sponsored through the juvenile justice (Multisystemic Therapy) or child welfare systems (family preservation) rather than through the mental health system (U.S. Department of Health and Human Services, 1999). While family preservation has been shown to be helpful with some youth and families, it has not been shown to be effective with multi-problem families (Lindsey, Martin, & Doh, 2002). Youth and families in the community mental health system tend to be multi-problem families. Of all the service modalities, Multisystemic Therapy (MST) stands out as a culturally competent home-based service with strong empirical
evidence for treating certain populations in the juvenile justice system (Burns et al., 1999), emerging evidence of effectiveness in the child welfare system, and may have promise for treating youth with a serious emotional disturbance in the community mental health system.

This article will present Multisystemic Therapy, to include the theoretical basis of MST, program design, and service provision. A review and critique of the empirical literature on MST will be presented. Finally, implications for social work practice and research with children and adolescents in the community mental health system discussed.

Multisystemic Therapy is a well-validated, evidenced-based service for the treatment of juvenile offenders (Kazdin & Weiz, 1998; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998). MST is a community-based treatment that has achieved favorable long-term outcomes to included reduced out-of-home placement and increased school attendance for children and adolescents presenting with serious clinical problems and their families (Henggeler, 2003). MST was conceived to treat juvenile offenders, yet it has much in common with the system of care movement for the treatment of youth with severe emotional impairment within the communities in which they live (Henggeler et al., 1998).

THEORETICAL BASIS OF MST

The theoretical foundation of MST is rooted in systems and social ecological theories (Henggeler et al., 1998). Assessment and treatment within multisystemic therapy are based on social ecological theory (Henggeler et al., 1998). “The treatment theory underlying MST proposes that by addressing the known risk factors and protective factors that directly and indirectly contribute to serious problems in youth (i.e., delinquency, substance abuse, SED), such problems will be reduced” (Schoenwald & Rowland, 2002, p. 95). Social ecology goes beyond assessing the relations and interactions between the parent and youth. It looks at the effects of all the systems in the youth’s social ecology. According to the theory, a developing individual is affected by the environments in which he/she resides as well as by settings in which he or she is not (Bronfenbrenner, 1979).

The relationship between people and the environments in which they are embedded is dynamic. Each affects the other. These components of ecological systems are the micro-, meso-, exo-, and macro-systems (Bronfenbrenner, 1979). It is within the micro-system an individual resides, and it is the micro-system having the most influence on the individual. An example of a micro-system is the family unit of a child. The child’s school would be an example of a meso-system. The meso-system includes settings outside the micro-system in which an individual
participates (Bronfenbrenner, 1979). Individuals are members of multiple social groups, or meso-systems, at the same time (Earls & Carlson, 2001).

A setting such as the workplace of a child’s parent is an exo-system to a child. A child may not come in direct contact with the workplace of a parent; yet, the workplace has an effect on the child, and the child an effect on the workplace. For instance, a parent over-stressed due to pressures of their employment may lack energy to provide a child adequate attention and care. On the other hand, a parent may perform poorly at work due to stress resulting from difficult issues of their child. The political government would be an example of a macro-system. Policies and laws developed through the local, state, and/or national government affect the supports and service a child and family receives.

A governing principle of Social Ecology is the reciprocation and exchange (Saleebey, 1992) between the individual and the other levels of the ecology. A circular relationship exists in that a change in one area of the system will affect all other levels of the system. The changes in the other levels of the system will thus affect the individual (Wakefield, 1996a). Humans will either adapt to their environment or seek to change it (Wakefield, 1996b). An example of reciprocation and exchange between can be seen when a child or adolescent is placed in a residential treatment facility to receive mental health treatment aimed at improving problem behaviors. Typically, the child or adolescent fights against the new environment and resists change, yet eventually adapts and problem behaviors improve. If the child or adolescent’s family does not make changes in the home environment aimed at sustaining the youth’s behavior changes, the problem behaviors eventually return.

Five assumptions underlie the basis for social ecology (Germain & Bloom, 1999). The first assumption is regarding the unit of analysis. A person cannot be studied without including the environment in which he or she resides in the analysis. As an example, a child may have behavior problems in the school environment, but not in other environments. One would need to study the child within the different environments to understand what sustained or diminished the problem behavior. Without this understanding, a practitioner could not be sure of the appropriate intervention to address this problem behavior.

The next assumption is around the person-in-environment fit. People continuously attempt to adapt to their environment. People either try to improve the fit between themselves and their environment or try to sustain a good fit. The third assumption is that factors exist that either facilitate or impede adaptation. Individuals are usually able to adapt to conventional environments, but may struggle to adapt during stressful times or in conditions where the individual has special needs or limitations (Germain & Bloom, 1999). Examples of situations when a person might struggle to adapt would be a time of unemployment or during a serious illness.

Flow of life events is assumption number four. As life events occur, people deal with them either positively or negatively, depending on their
perception of the event. Negatively perceived events will either result in the person successfully coping and leading to successful resolution or not being able to cope and leading to an unsuccessful resolution. The response of the individual will affect both the environment and the individual. Successful resolution can lead to personal development and/or environmental change; whereas, an unsuccessful resolution may lead to the destruction of the person:environment or maintenance of the status quo.

Finally, the fifth assumption is termed the transacting configuration. This assumption states that in order to understand a life event, one must fully consider all aspects of the person: environment, including all of the systems and subsystems that affect adaptation. These systems and subsystems include a person's cognitive, biological, affective, and behavioral structures as well as subsystems of the environment. These five assumptions form the logical basis of social ecology upon which human development can be studied and understood.

STRENGTHS AND WEAKNESSES IN SOCIAL ECOLOGY

Strengths
The logic of social ecology is one of the strengths of the model. Social ecology takes into account a larger relationship than linear models (Bronfenbrenner, 1979). It allows one to see the things in the environment that might either impede or provide an opportunity for a person's growth. Social ecology allows for a fuller assessment of a situation and provides more information than general systems theory, as it encourages the assessment of interactions between systems (Scannapieco & Connell-Carrick, 2005). Thus, it expands a social worker's thinking as to the cause of problems and allows interventions focused on the total picture, rather than just the individual (Scannapieco & Connell-Carrick, 2005).

Another strength of social ecology is around the use of it as a paradigm, rather than a theory (Greif, 1986). Social workers can use social ecological theory for assessment and then use the treatment methods and techniques they feel best fits the situation. While social ecology as a paradigm is seen as a strength due to allowing social workers to use the interventions and techniques they feel best meets the needs of a situation, Wakefield (1996b) considers this strength to also be one of its weaknesses.

Weaknesses
Social ecology does not offer a model of interventions for a problem and is too generic to be relevant to social work practice (Wakefield, 1996b). A fallacy of the logic of social ecology is the focus of interactions between systems. While more than one element may be involved in an interaction, not all of
those elements might be a contributor to the problem. Thus, a social worker
may conduct a full assessment of the problem, but may still target the
wrong area for intervention due to a lack of understanding of the primary
cause of the problem.

Other weaknesses of social ecology are the lack of empirical support
and lack of ability to inform about the ways in which the person and envi-
ronment respond to one another or the causal relationship of a problem
(Wakefield, 1996b). It does not inform social workers on what is transpiring
or why it is transpiring (Greif, 1986); nor does it allow for prediction of
trends and processes (Hudson, 2000).

Social Ecology and MST

MST assessment, service provision, and research build off the strengths of
social ecology and mitigate the weaknesses. MST does not focus just on the
individual, but provides a clear assessment of the entire social ecology of a
child or adolescent and designs interventions aimed at all areas of the social
ecology (Henggeler et al., 1998). It is the role of the MST therapist to assess
the factors in the youth’s social ecology contributing to identified problems,
assess strengths of the social ecology, and develop interventions using the
identified strengths to alleviate the problems (Henggeler et al., 1998). All
interactions between systems in the youth’s social ecology are investigated
from multiple perspectives. Information sources not only include the youth
and parents; they include teachers, coaches, pastors, grandparents, siblings,
or other important figures in the youth’s ecology.

Assessment focuses on understanding how various systems contribute
to problem behavior, both directly and indirectly (Henggeler et al., 1998).
The therapist takes the information obtained from the various sources and
formulates a testable hypothesis as to the causes of the problem behavior.
Interventions focus on all aspects of the social ecology contributing to the
problems. For example, MST interventions might focus on problems
between caregivers, problems between the youth and the school system, or
problems between the family and the youth’s peers.

MST therapists work with their MST team, supervisor, and consultant in
formulating hypotheses and developing interventions (Henggeler et al.,
1998). The hypotheses are either supported or rejected based on the effect-
iveness of the interventions. When hypotheses are rejected, the therapist
formulates new hypotheses and develops new interventions. Continuous
assessment occurs throughout this process. The formulation of testable
hypotheses based on a thorough social ecological assessment obtained from
many perspectives, along with input from the MST team, supervisor, and
consultant, strengthens ecological validity (Henggeler et al., 1998) and
reduces the likelihood of targeting interventions at elements that do not
contribute to the problem.
MST Treatment

While the philosophical paradigm of MST comes from social ecological theory, treatment interventions utilize any number of empirically supported problem-focused treatments, such as cognitive-behavior, family therapies, or parent training (Henggeler, 1999). The goal-oriented treatments focus on well-defined problems based on the needs identified from the social-ecological assessment (Strother, Swenson, & Schoenwald, 1998). The needs of the youth and family as identified collaboratively by the family and therapist determine service design (Henggeler et al., 1998).

MST treatment interventions occur in the youth's natural environment and require active efforts from the family to reach treatment goals (Henggeler, 1999). Interventions provided in the youth's home and community and implemented by the caretakers further maximize ecological validity and increase the likelihood for treatment generalization and maintenance (Henggeler et al., 1998). It is the responsibility of the therapist and provider agency to ensure treatment goals are being met and families are actively engaged in the treatment process (Strother et al., 1998). If goals are not being met, the therapist must re-assess the situation, change the treatment strategy, or seek new ways to engage the family.

MST PROGRAM DESIGN

In order to become a MST provider, an agency must become licensed as a MST provider and agree to adhere to the fidelity of MST (Multisystemic Therapy Services, 1998a). Once an agency is deemed a good fit as a MST provider, the agency becomes licensed and begins the process of developing MST teams. A good candidate for a MST therapist team member is one who is highly motivated, flexible, and possesses a high level of common sense (Multisystemic Therapy Services, 1998a). MST Services guides providers in finding and developing good MST therapists.

Each MST clinician maintains a caseload of four to six families, allowing the clinician time to continuously assess treatment outcomes and provide an intensive level of treatment to the family in their home and community. Services are problem-focused and time-limited, lasting from four to six months. The MST therapist or a member of the therapist’s team is available to the family 24-hours a day, 7-days a week to help the family work through any crisis that might arise. Unlike most traditional treatments, the MST therapist takes responsibility for treatment outcomes (Henggeler, 2003).

Prior to providing or supervising MST; each therapist, supervisor, and administrator of the provider organization receives intense training on MST principles, theoretical underpinnings, treatment strategies, and service provision. Once service provision begins, an on-site supervisor provides regularly
scheduled, weekly, clinical supervision to the MST team and monitors the therapists’ adherence to MST fidelity. In addition to on-site supervision, each MST team and supervisor works closely with an assigned consultant from MST Services who monitors therapist and supervisor adherence to MST fidelity, helps set up on-site clinical supervision that facilitates fidelity adherence, helps the team overcome treatment barriers, and helps develop treatment strategies (Strother et al., 1998). Like MST interventions, supervision is pragmatic and goal-oriented.

**REVIEW OF RESEARCH FOR MULTISYSTEMIC THERAPY**

**Method**

A research review was conducted to locate peer-reviewed, empirical studies that examine the effectiveness of MST with youth who have serious clinical problems. The research review was conducted using the key words Multisystemic therapy, MST, and Multisystemic treatment and was crossed referenced with the keywords outcome studies, treatment outcomes, and empirical studies. Databases searched included PsychINFO, Academic Search Premier, Social Work Abstracts, and Social Services Abstracts. In addition, a thorough search of peer-reviewed journals and a search of references from an overview of MST as a Model Program from Substance Abuse and Mental Health Services Administration (SAMHSA) was conducted.

Several studies were found that validate the effectiveness of MST. In addition, several follow-up studies addressing the long-term effectiveness of MST, as well as studies that report on therapist adherence to fidelity of the MST model, were located. Finally, information on current studies in progress and studies that have been completed but not peer-reviewed were found.

The studies found were narrowed down to peer-review, randomized, controlled studies of MST and any follow-up studies of the randomized studies. Of particular interest were the studies that reported on the outcomes of improved family relations, interactions, or functioning; improved peer relations; decreased out-of-home placement; decreased psychiatric symptoms; and increased school functioning or attendance. These outcomes were of particular interest for this paper as they are important outcome areas for improving the lives of children and adolescents with an emotional disturbance (Zaff et al., 2002).

**Results**

Of the research articles initially reviewed, eight studies were chosen for inclusion in this article based on the methods described previously, in addition to five follow-up studies (see Table 1). Four studies were randomized trials with juvenile offenders identified as chronic and/or violent (Borduin et al.,
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Population</th>
<th>Sample size</th>
<th>Comparison</th>
<th>Study type</th>
<th>Findings</th>
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</thead>
<tbody>
<tr>
<td>Henggeler, Roddic, Borduin, Hanson, Watson, &amp; Urey, 1986</td>
<td>Inner city juvenile offenders 10–17</td>
<td>33 Exp 23 Control</td>
<td>Usual community services</td>
<td>Pre–post with control Randomized clinical trial</td>
<td>Improved family relations Decreased behavior problems</td>
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<td>Brunk, Henggeler, &amp; Whelan, 1987</td>
<td>Maltreating families</td>
<td>16 Exp 17 Control</td>
<td>Behavior parent training</td>
<td>Pre–post with control Randomized clinical trial</td>
<td>Improved parent–child interactions</td>
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<tr>
<td>Borduin, Henggeler, Blaske, &amp; Stein, 1990</td>
<td>Juvenile sex offenders 81.9% male 80.6 African American 19.4 White</td>
<td>Individual counseling</td>
<td>Pre–post with control Randomized clinical trial</td>
<td>Reduced recidivism of sexual offending</td>
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<tr>
<td>Henggeler, Melton, &amp; Smith, 1992</td>
<td>Violent and chronic juvenile offenders ME 15.2</td>
<td>43 Exp 41 Control</td>
<td>Usual community services</td>
<td>Pre–post with control Randomized clinical trial</td>
<td>Improved family relations Improved peer relations Decreased out-of-home placements</td>
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<tr>
<td>Henggeler, Melton, Schoenwald, &amp; Haney, 1993</td>
<td>Follow-up study to 1992</td>
<td>Same as previous</td>
<td>Same as previous</td>
<td>2.4 year follow-up for arrests</td>
<td>More effective in preventing future criminal behavior</td>
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<td>Borduin, Mann, Cone, Henggeler, Fucci, Blaski, &amp; Williams, 1995</td>
<td>Violent and chronic juvenile offenders ME 14.8</td>
<td>76 Exp 56 Control</td>
<td>Individual counseling</td>
<td>Pre–post with control Randomized clinical trial</td>
<td>Improved family relations, Decreased psychiatric symptoms 4-year follow-up MST more effective at preventing future criminal behavior</td>
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<tr>
<td>Study</td>
<td>Population</td>
<td>Sample Size</td>
<td>Intervention</td>
<td>Outcome</td>
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<td>Henggeler, Melton, Brondino, Scherer, &amp; Hanley, 1997</td>
<td>Violent and chronic juvenile offenders ME 15.22</td>
<td>87 Exp</td>
<td>Usual community services</td>
<td>Pre-post with control Randomized clinical trial Decreased psychiatric symptoms, decreased days in out-of-home placement 1.7 year follow-up—rate of re-arrest did not drop significantly (attributed to low fidelity to MST)</td>
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<td></td>
<td>81.9% Male</td>
<td>73 Control</td>
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<td></td>
<td>80.6% African American</td>
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<td></td>
<td>19.4% White</td>
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<td>Henggeler, Rowland, Randall, Ward, Pickerel, Cunningham, Miller, Hand, Zealberg, Edwards, &amp; Santos, 1999</td>
<td>Youth presenting psychiatric services ME 12.9</td>
<td>56 Exp</td>
<td>Inpatient psychiatric unit with behavioral milieu, followed by usual community services</td>
<td>Mixed factorial design with random assignment Decreased externalizing problems, improved family relations, improved school attendance</td>
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<tr>
<td></td>
<td>65% Male</td>
<td>54 Control</td>
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<td>64% African American</td>
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<td>34% White</td>
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<tr>
<td></td>
<td>1% Asian</td>
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<td></td>
<td>1% Hispanic</td>
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<tr>
<td>Henggeler, Rowland, Halliday-Boykins, Sheidow, Ward, Randall, Pickerel, Cunningham, &amp; Edwards, 2003</td>
<td>Youth from 1999 study (1 year follow-up)</td>
<td>Same as 1999</td>
<td>Same as 1999 Mixed effects growth curve modeling</td>
<td>Both groups converged in all areas by 1 year</td>
<td></td>
</tr>
<tr>
<td>Henggeler, Rowland, Halliday-Boykins, Cunningham, Pickrel, &amp; Edwards, 2004</td>
<td>Youth from 1999 study presenting with suicidal ideation, plan, or attempt ME 12.9</td>
<td>Same as 1999</td>
<td>Same as 1999 Study</td>
<td>Decreased rates of suicide attempts at 1 year follow-up, reduced psychiatric symptom</td>
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**TABLE 1 (Continued)**

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Population</th>
<th>Sample size</th>
<th>Comparison</th>
<th>Study type</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henggeler, Pickrel, &amp; Brondino, 1999</td>
<td>Substance abusing juvenile offenders with co-occurring psychiatric diagnosis ME 15.7 50% African American 47% White 3% Other</td>
<td>58 Exp 60 Control</td>
<td>Usual community services</td>
<td>Pre-post with control Randomized clinical trial</td>
<td>High level of treatment completion, increased mainstream school attendance, cost savings, decreased criminal activities, decreased substance abuse</td>
</tr>
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<td>Brown, Henggeler, Schoenwald, Brondino &amp; Pickrel, 1999</td>
<td>6-month follow-up to 1999 study 79% Male</td>
<td>Same as above</td>
<td>Same as above</td>
<td>Multimethod (self-report, parent report, archival) strategies to study school attendance</td>
<td>Increased school involvement, sustained school attendance over time through 6-month follow-up</td>
</tr>
<tr>
<td>Henggeler, Clingempeel, Brondino &amp; Pickrel, 2002</td>
<td>4 year follow-up to 1998 study 76% Male 60% African American 40% White</td>
<td>Same as above</td>
<td>Same as above</td>
<td>Multi-method (self-report, biological, and archival measures) assessment battery to measure criminal behavior, illicit drug use, and psychiatric symptoms</td>
<td>No long-term effects for psychiatric symptoms, decreased aggressive crimes, no significant difference in number of property crimes, mixed effects in long-term drug use</td>
</tr>
<tr>
<td>Rowland, Halliday-Boykins, Henggeler, Cunningham, Lee, Kruesi, &amp; Shapiro</td>
<td>9- to 17-year-old youth with a severe emotional disturbance at imminent risk of out-of-home placement. ME 14.5 58% male, 42% female 84% multiracial (mostly combinations of Asian, Caucasian, Pacific Islander) 10% Caucasian 7% Asian American &amp; Pacific Islander</td>
<td>15 Exp 16 Control</td>
<td>Usual Services</td>
<td>Pre-post with control Randomized clinical trial</td>
<td>Reduction in externalizing, internalizing, and minor criminal activity. Fewer days in out-of-home placement. Increased social support for caretakers.</td>
</tr>
</tbody>
</table>
Multisystemic Therapy With Youth With SED

1995; Henggeler et al., 1986; Henggeler, Melton, Smith, 1992; Henggeler, Melton, Brondino, Scherer, & Hanley, 1997), one of which focused on inner-city juvenile offenders (Henggeler et al., 1986). These studies compared MST to individual counseling (Bourdin et al., 1995) or usual community services (Henggeler et al., 1986; Henggeler et al., 1992; Henggler et al., 1997). A fifth study (Brunk, Henggeler, & Whelan, 1987) compared MST against parent behavioral training by randomly assigning maltreating families to the MST group or to the control group. One study compared MST with usual community services for delinquent youth identified as substance abusing or dependent (Henggeler, Pickrel, & Brondino, 1999).

To date, only two studies exist on the use of MST with non-juveniles with a severe emotional disturbance (Henggeler et al., 2003; Rowland et al., 2005). One of the studies compares the use of a modified version of MST as an alternative to psychiatric hospitalization for youth who are suicidal or in acute psychiatric distress (Henggeler et al., 2003). Results of this study were favorable with MST outcomes (Henggeler et al., 2003). The second study, which compared MST with usual services for youth with a severe emotional disturbance, also found favorable MST outcomes (Rowland et al., 2005). Further study on the effectiveness of MST with this population and comparing it against current home-based treatments used in community mental health centers has great promise.

Across all of the studies noted in the table, study sizes ranged from 31 to 155. The majority of the participants were male, with a strong mix of ethnic diversity. The majority of the youth lived with at least one biological parent and was from lower socioeconomic status.

Characteristics of MST

Therapists providing MST in all of the studies were either master’s-level therapists or were attending graduate school and included a mix of both male and female and ethnic diversity. Caseload sizes ranged from three to six families. MST services were provided in the homes and communities of the participants. Services lasted an average of four to six months.

Each of the MST therapists received an average of 40 hours of training in multisystemic treatment prior to provision, plus received weekly consultation, supervision, and quarterly booster sessions with a MST consultant. It should be noted one of the founders of MST provided the consultation/supervision.

Characteristics of Comparison Groups

Five of the studies compared MST against usual community services (Henggeler et al., 1986; Henggeler et al., 1992; Henggeler et al., 1997; Henggeler et al., 1999; Rowland, et al., 2005). Usual community services
varied greatly among the studies. In four of the studies, usual services were clinic-based and in combination with traditional probation (Henggeler et al., 1986; Henggeler et al., 1992; Henggeler et al., 1997; Henggeler et al., 1999). The fifth study compared MST with Hawaii’s existing continuum of care services, which included a range of services, including in-home, outpatient, and out-of-home placements (Rowland et al., 2005). The behavior parent training provided as a comparison in one study (Brunk et al., 1987) included weekly group sessions in a clinic-based setting provided at a ratio of one therapist to seven participants. The group sessions focused on teaching the parents: positive reinforcement, parental consistency, and disciplinary techniques.

In the study comparing MST to psychiatric hospitalization (Henggeler et al., 1999), the youth in the comparison group received acute stabilization from a multidisciplinary treatment team. The team included a child and adolescent psychiatrist, a master’s-level social worker, a teacher trained in special education and nursing staff. Upon discharge from the hospital, the youth were linked with mental health providers in the community for follow-up care.

Findings of MST Research

All eight of the clinical trials included random assignment to either the experimental group or the control group and pre/posttesting. The researchers controlled for demographic characteristics between the experimental and control groups to enhance equality of groups. Due to the classic experimental design of the studies and the researcher’s control of demographic characteristics, the studies appear to possess strong internal validity.

All of the studies reported on the effectiveness of MST in improving family relationships and/or decreasing offending behavior. Improved peer relationships were reported in one of the studies (Henggeler et al., 1992); and two of the studies reported improved school attendance and/or performance (Henggeler, Rowland, et al., 1999; Henggeler, Pickrel, et al., 1999). Decreased behavior problems and/or improved psychiatric symptoms were present in five of the studies (Henggeler et al., 1986; Borduin et al., 1995; Henggeler et al., 1997; Henggeler, Rowland, et al., 1999; Huey et al., 2004). One area of disappointment was the results of the 4-year follow-up (Henggeler, Clingempeel, Brondino, & Pickrel, 2002) to the study of youth with co-occurring substance abuse and psychiatric diagnosis (Henggeler, Pickrel, et al., 1999). No long-term effects of improved psychiatric symptoms existed. However, it is important to note the study did not address if any of the participants were receiving any type of ongoing psychiatric treatment, such as medication management. Further, many of the participants (as many as 50%) were reported to still be using cocaine or marijuana at the time of the follow-up. The researchers did not correlate ongoing psychiatric
symptoms with substance use, so it is not known if the participants still using drugs were the same participants reported as having ongoing psychiatric symptoms. The researchers also identified a finding of lack of MST therapists’ adherence to treatment fidelity as a weakness in the outcomes of the original study. It is not known what effects, if any, this might have on the outcomes of the ongoing psychiatric symptoms.

Further limitations were noted in the MST studies. In the study comparing MST to psychiatric hospitalization (Henggler, Rowland, et al., 1999), 44% of the youth in the treatment group required emergency psychiatric hospitalization during the treatment phase of the study to maintain the safety of the participants. In order to control for the effects of the hospitalization, the youth in the MST group were kept separate from the rest of the hospital milieu, and the MST treatment team remained responsible for the treatment of the youth while in the hospital. However, regardless of attempts to control for the overlapping of services, the outcomes of this study are seriously limited (Henggeler, Rowland, et al., 1999).

In the study comparing suicidality between the MST group and the control group (Huey et al., 2004), the researchers noted, although randomly assigned, the experimental group had higher rates of suicidal ideation, depressive affect, and feelings of hopelessness at pretest. Therefore, the significant decrease in suicide attempts at 1-year follow-up may have been regression to the mean (Rubin & Babbie, 2004) rather than improvements due to the treatment. The researchers report a lack of external validity due to the fact youth who attempt suicide are a heterogeneous group and due to the study sample being composed mostly of African-American youth. According to the researchers, African-American youth attempt suicide at lesser rates than other youth, which further reduces the external validity of the study.

It should be noted, all of the randomized studies published to date have been conducted by one or both of the founders of MST or someone closely tied to the founders. In spite of this, and the fact that there are limitations to the studies, the overwhelming results of reduction of criminal behavior, improvement of family relationships, and although not sustained, improved psychiatric symptoms; the further study of MST for treating youth with serious mental health disorders remains warranted.

**SOCIAL WORK PRACTICE AND RESEARCH IMPLICATIONS**

There is a strong emphasis for evidence-based treatments in social work practice (Corcoran & Nichols-Casebolt, 2004). Currently, gaps exist in the empirical literature for youth with a serious emotional disturbance or comorbidity and community mental health. Building from empirical evidence within the juvenile justice population and emerging evidence within child
welfare, Multisystemic Therapy in social work practice seems to be a logical treatment modality to address the multi-needs of children, adolescents, and their families in community mental health.

MST addresses all the complex problems within a youth’s ecological system that contribute to the youth’s problems. It is not a one-size-fits all in-home treatment model, yet it possesses a definite structure. Treatment goals are matched to the needs and strengths of the youth and family. Criticism in family preservation and case management literature on lack of a consistent model shown to be effective is a strength of MST. The strong emphasis on measuring therapist and supervisor fidelity further adds to its credibility in the literature and practice.

The core principles of MST are consistent with the principles and values of the social work profession. MST interventions aimed at improving youth and family functioning are developed from the strengths of the youth, family, and social ecological system within which a youth resides. Evidence of MST effectiveness exists across cultural, socioeconomic, and racial groups, important factors to social work practice and research.

Also consistent with social work values, MST therapists make a full commitment to their clients. A strong emphasis of MST is around therapist responsibility for engaging clients in the helping process and ensuring clients reach treatment outcomes. The MST therapist does not blame children, adolescents, or their family for not reaching goals. It is the responsibility of the therapist to engage families and ensure outcomes are met. Current evidence points to family engagement as a key element to effective treatments (Friedman, 2000). The small caseloads and availability to the family 24 hours a day, 7 days a week allow therapists more time to focus on the family, build the relationship, and engage the family in the treatment process.

Criticism of MST and a possible explanation of why there is a gap between the evidence of effectiveness and the lack of availability is the cost. There is a substantial cost to implementing MST and maintaining fidelity; however, it is clearly less costly than residential treatment, not to mention the reduced cost to the juvenile justice, child welfare, or community mental health systems if outcomes are actually met and sustained. The average cost per family for MST treatment is $5000 to $6000. Medicaid case management and rehabilitation dollars can be billed to offset a substantial amount of the cost. If the juvenile justice, child welfare, and mental health systems implemented MST across the systems, the cost could be further offset through sharing of consultation and supervision. MST is a time-limited treatment, further adding to the cost savings. A typical youth and family receiving case management will most likely receive those services 6 months to several years. MST lasts an average of 3 to 6 months. MST interventions are aimed at employing the child and family with the skills and support to no longer need the system.

An increase in research conducted in the natural environment of children and adolescents with serious emotional impairments is important to increas-
ing the knowledge base of social work and bridging the gaps of knowledge of effective community based interventions for these youth and their multi-

problem families. It appears from the research on MST that its strong social ecological approach, therapist responsibility to ensure family engagement and treatment outcomes, and the focus of improving the youth's functioning, as well as improving all systems that affect the youth show great promise in social work practice and the community mental health setting. MST research with children and adolescents in the community mental health setting is warranted. Finally, demonstration projects to examine the cost-effectiveness of shared MST services across the major child serving agencies are warranted.

REFERENCES


