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Shay Bilchik, Administrator

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Treating Serious Anti-Social Behavior in Youth: The MST Approach

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The Multisystemic Therapy (MST) approach to the treatment of serious anti-social behavior in adolescents represents a significant departure from more traditional strategies. MST is a home-based services approach that was developed in response to the lack of scientifically proven, cost-effective treatment.

The majority of funding currently available for children's mental health needs in the United States is spent on expensive out-of-home placements such as residential treatment facilities, psychiatric inpatient treatment, or incarceration. However, no scientific evidence has shown that these treatments are effective in ameliorating or reducing the serious behavioral difficulties demonstrated by juvenile offenders. Other less restrictive treatments that do not involve out-of-home placements, such as outpatient or clinic-based services, also have failed to demonstrate desired levels of effectiveness. Furthermore, research on adolescent substance abuse has failed to substantiate the effectiveness of any treatment in curtailing that problem. Thus, MST was developed as a means to provide scientifically validated, cost-effective, community-based treatment as a viable alternative to expensive, ineffective treatments that have

traditionally been provided to youth with serious behavior disorders.

This Bulletin highlights evaluations of several programs that have implemented the MST approach. In particular, success demonstrated by the Simpsonville, South Carolina, program has led to major funding by the National Institute of Mental Health (NIMH)—targeting violent and/or chronic juvenile offenders and youth with serious emotional disturbance—and the National Institute on Drug Abuse—targeting substance-abusing delinquents. The Bulletin also includes an overview of federally funded controlled evaluations of MST projects that are currently under way.

The MST Treatment Approach

Program Overview

The goal of the MST approach is to provide an integrative, cost-effective family-based treatment that results in positive outcomes for adolescents who demonstrate serious antisocial behavior. MST focuses first on improving psychosocial functioning for youth and their families so that the need for out-of-home child placements is reduced or eliminated. To accomplish this task, MST

From the Administrator

Traditional mental health approaches for serious, violent, and chronic juvenile offenders have all too often failed to yield the successful results we desire. Adolescent drug and substance abuse has also proven to be remarkably resistant to treatment.

The multisystemic therapy (MST) approach was designed to provide communities with affordable and effective remedies for these difficult problems. Best of all, MST offers new hope to young people with serious behavioral disorders.

If we are going to help troubled youth, we must strengthen the support systems that surround them so that they may continue to benefit long after immediate intervention has ended. With its focus on family preservation through home-based services, MST shows real promise of achieving such lasting results.

This Bulletin features evaluations of programs that have implemented the MST approach. Of particular interest is the Simpsonville, South Carolina, program, which services serious, violent, and chronic juvenile offenders at imminent risk of out-of-home placement. The Simpsonville program has significantly reduced recidivism rates at substantial savings in terms of both human and financial considerations.

I am pleased to share this excellent program design with the juvenile justice field.

Shay Bilchik
Administrator

addresses the known causes of delinquency on an individualized, yet comprehensive, basis. MST interventions, therefore, focus on the individual youth and his or her family, peer context, school/vocational performance, and neighborhood/community supports. For example:

- ◆ Family interventions often seek to promote the parent's capacity to monitor and discipline the adolescent—MST counselors must determine the barriers to effective parental discipline and intervene accordingly. Commonly observed barriers include parental drug abuse, psychiatric conditions, and low social support.
- ◆ The central thrust of MST peer interventions is to remove offenders from deviant peer groups and facilitate their development of friendships with prosocial peers, with the parent viewed as the key to accomplishing such goals.
- ◆ School and vocational interventions seek to enhance the youth's capacity for future employment and financial success.

Across all interventions, MST attempts to change the real-world functioning of youth by changing their natural settings—home, school, and neighborhood—in ways that promote prosocial behavior while decreasing antisocial behavior.

Program Results

MST defines success in terms of reduced recidivism rates among participating youth, improved family and peer relations, decreased behavioral problems, and decreased rates of out-of-home placements. Research has demonstrated that MST is more effective than usual community treatment for inner-city juvenile offenders, specifically in improving intrafamilial relations and decreasing youth behavioral difficulties.

In addition, recent research indicates that when compared with youth who received "usual services"—court-ordered stipulations such as curfew, school attendance, and participation in various agency programs that were typically monitored by probation officers—youth who received MST had fewer arrests, reported fewer criminal offenses, and spent an average of 10 fewer weeks in detention during a 59-week followup.

Results from other followup studies indicate that the effects of MST treatment are long lasting, with reduced recidivism

rates for sexual and criminal offenders who received MST versus individual outpatient counseling. Ongoing research is also evaluating the effectiveness of MST in community settings and with other difficult populations—adolescent substance abusers and youth with serious psychiatric emergencies such as suicidal, homicidal, or psychotic presentations.

MST's program strengths include its cost-effectiveness, proven success in treating difficult clinical populations, and relative ease of implementation across geographic locations and community agencies.

The Family Preservation Model of Service Delivery

Philosophy

MST's family preservation model of service delivery is based on the philosophy that the most effective and ethical route to helping children and youth is

through helping their families. MST views families as valuable resources, even when they are characterized by serious and multiple needs. Services are directed toward the psychological, social, educational, and material needs that face families in which a child is in imminent danger of out-of-home placement.

Service Delivery Approach

While the particular treatment modalities used in family preservation programs vary, certain critical service delivery characteristics, described below, are shared by all of them. Summarized in table 1, these characteristics distinguish treatment programs delivered in a family preservation model from traditional mental health and juvenile justice services.

- ◆ **Length of Service.** Service duration ranges from 3 to 5 months in MST, with the average duration of treatment being approximately 60 hours of contact over 4 months, with the final 2 to 3 weeks involving less intensive contact to monitor the maintenance of therapeutic gains.

Table 1: Differences Between Traditional Mental Health Services and Family Preservation Using Multisystemic Therapy

Service Element	Traditional Services	Family Preservation
Treatment Sites	In the clinic (outpatient) In the hospital, RTC* (inpatient)	In the field (home, school, neighborhood, community)
Treatment Modality	Individual psychotherapy Group therapy Medication	Total care
Provider	Individual clinician (outpatient) Multidisciplinary teams (inpatient)	Generalist team
Clinical Staff: Patients	1:60–100 (outpatient) Varies in inpatient settings	1:4–6
Staff Availability	Working office hours (outpatient) Highly variable (inpatient)	Team available 24 hrs/7days/week
Frequency of Contact	Weekly or biweekly (outpatient) Highly variable (inpatient)	Daily in most cases
Family Contact	Occasional	Daily in most cases
Treatment Outcome	Responsibility of patient and family	Responsibility of staff
Case Management	Broker of services	Services provider
Expectations of Outcome	Gradual change	Immediate, maximum effort by staff and family to attain goals

*RTC = Residential Treatment Centers

◆ **Staffing Pattern.** A typical staffing pattern for the provision of intensive home-based MST is a treatment team consisting of one doctoral-level supervisor and three to four master-level therapists, with each therapist carrying a caseload of four to six families. Each youth referred to the program is assigned a therapist who designs individualized interventions in accordance with MST treatment principles that address specific needs of the youth and family. Each treatment team provides services for about 50 families per year.

◆ **Hours of Service.** Staff are available 24 hours per day, 7 days per week, and can usually meet at the families' convenience, resulting in many evening and weekend appointments. In consideration of treatment efforts to empower families to solve their own problems and the attenuation of counselor burn-out, however, use of services at unusual times (e.g., 10 p.m. to 8 a.m.) is discouraged except in cases of emergency.

◆ **Location of Services.** MST is typically delivered in home and community settings to increase cooperation and enhance generalization. Sessions are usually held in the family's home at a convenient time, although meetings in community locations, such as a school, recreation center, or project office, are often needed. Moreover, the specific family members who attend will vary with the nature of the particular problem that is being addressed (e.g., youth are usually not included in sessions that address lax parental discipline, so as not to undermine parental authority).

Training

Training in the MST model of family preservation is provided in the following ways:

1. Five days of introductory training are provided for all staff who will engage in treatment and/or clinical supervision of MST cases to familiarize participants with the scope, correlates, and causes of the serious behavior problems addressed with MST; describe the theoretical and empirical underpinnings of MST; describe family, peer, school, and individual intervention strategies used in MST; train participants to conceptualize cases and interventions in terms of MST principles; and provide participants with practice in delivering multisystemic interventions.



2. Quarterly booster sessions are designed to provide training in special topics, such as marital therapy, treatment of parental depression, or early childhood intervention, and to address issues that may arise for individuals and agencies using the approach. Booster sessions are also designed to allow discussion of particularly difficult cases.
3. Weekly telephone consultations via 1-hour conference calls allow the treatment team and supervisor to consult with an MST expert regarding case conceptualization, goals, intervention strategies, and progress. Such ongoing consultation is critical for maintaining therapist adherence to the MST treatment protocol.

In South Carolina, the Family Services Research Center (FSRC) is under contract with the South Carolina Department of Health and Human Services to provide training and consultation services to public and private providers of Medicaid-reimbursed home-based treatment services. FSRC is responsible for conducting certification reviews of these providers to ensure compliance with Medicaid standards.

Training in MST using home-based services is also provided to sites outside South Carolina. Several training sites involve randomized trials and pilot projects in State and county agencies (e.g., departments of juvenile justice, mental health,

and social services). Training and quality assurance are provided to out-of-State entities by MST Services, Inc., of Charleston, South Carolina.

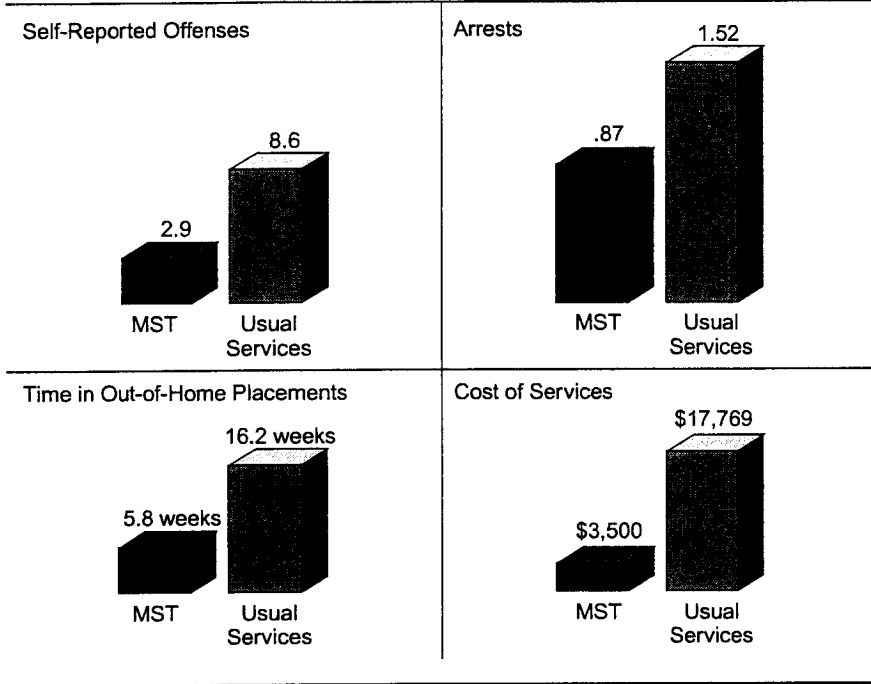
The Simpsonville, South Carolina, Project

Funded by NIMH, Henggeler et al. conducted an evaluation of the Simpsonville, South Carolina, MST program, which used the family preservation model of service delivery. Participants were 84 violent and chronic offenders at imminent risk of out-of-home placement and their families, who had multiple needs. Each offender had at least one felony arrest (54 percent had been arrested for violent crimes). The mean number of arrests was 3.5, and the average number of weeks of prior placement in correctional facilities was 9.5. The average age of the juveniles was 15.2 years, 77 percent were male, and the average social class score was 25 (i.e., semiskilled workers). Twenty-six percent of the offenders lived with neither biological parent. Fifty-six percent were African American, and the remainder were Caucasian.

In a rigorous, controlled evaluation, youth were randomly assigned to receive either MST using family preservation ($n = 43$) or usual services from the Department of Youth Services ($n = 41$). These usual services included incarceration and/or referral for mental health, educational, or vocational services. The MST therapists were three master-level counselors with an average of 2 years of experience and caseloads of four families each. The average duration of treatment was 13 weeks. Assessment batteries, composed of standardized measurement instruments, were administered pre- and posttreatment.

Findings indicate that MST, using family preservation, was more effective than usual services at reducing long-term rates of criminal behavior and also considerably less expensive. At the 59-week postreferral followup, youth receiving MST had significantly fewer rearrests (averages = .87 versus 1.52) and weeks incarcerated (averages = 5.8 versus 16.2) than did youth receiving usual services. Results at a 59-week followup are shown in figure 1, with numbers representing the average for each treatment condition. Moreover, standardized evaluations showed that families receiving MST services, compared with offenders receiving

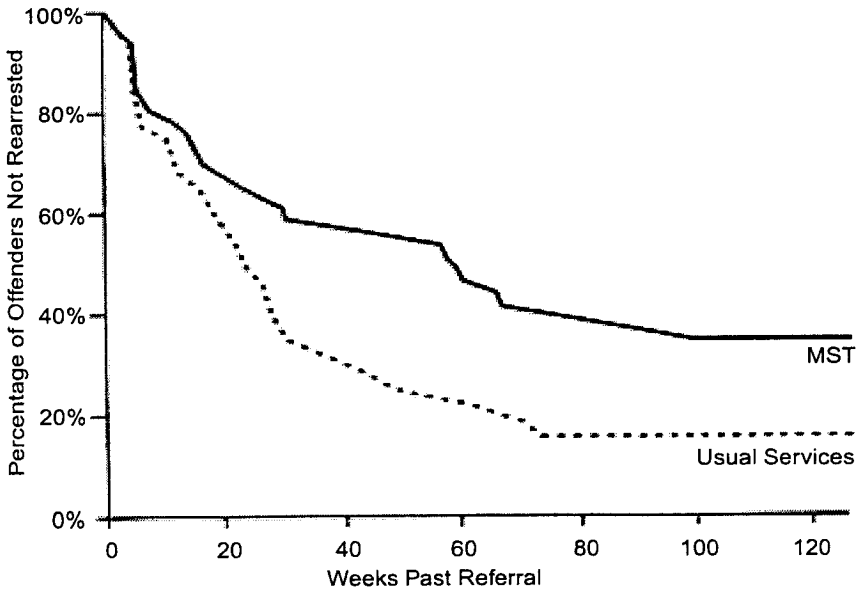
Figure 1: 59-Week Followup



usual services, reported increased family warmth and cohesion and decreased youth aggression with peers. In addition, youth receiving MST reported less criminal activity than their counterparts receiving usual services.

Figure 2 shows that positive results for MST were maintained to a 2.4-year followup. MST essentially doubled the percentage of youth not rearrested at the long-term followup.

Figure 2: Simpsonville, South Carolina, Project: Survival Analysis



The relative efficacy of MST was neither moderated by demographic characteristics—race, age, social class, gender, arrest, and incarceration history—nor mediated by psychosocial variables—family relations, peer relations, social competence, behavior problems, and parental symptomatology. Thus, MST was equally effective with youth and families of divergent backgrounds.

The findings of this evaluation support the short- and long-term efficacy of MST with serious juvenile offenders and their families. In addition, despite its intensity, MST was a relatively inexpensive intervention. With a client-to-therapist ratio of 4 to 1 and a course of treatment lasting 3 months, the cost per client for treatment in the MST group was about \$3,500, which compares favorably with the average cost of institutional placement in South Carolina of \$17,769 per offender.

Results of the Simpsonville project, combined with other evaluations discussed below, strongly support MST's effectiveness with types of behavior problems that traditionally are regarded as highly resistant to change. MST has proven effective with chronic juvenile offenders and adolescent sexual offenders in studies conducted in Missouri, and abusive and neglectful families and inner-city delinquents in studies conducted in Memphis.

In each of the following additional controlled outcome studies conducted by Henggeler et al., the samples included both genders and high percentages of economically disadvantaged and minority families.

Evaluations of Other MST Programs

Columbia, Missouri

MST With Adolescent Sexual Offenders, 1990. The first controlled outcome evaluation conducted with adolescent sexual offenders to appear in the literature compared MST with individual outpatient counseling. Recidivism data approximately 3 years after treatment showed that significantly fewer participants had been rearrested for sexual crimes (12.5 percent versus 75 percent) and that the frequency of sexual rearrests was significantly lower in the MST condition (average = .12) than in the individual counseling condition (average = 1.62). Moreover, the frequency of rearrest for

nonsexual crimes was greater for adolescents who received individual counseling (average = 2.25) than for the adolescents who received MST (average = .62). Findings from this study should be considered tentative because the sample size was only 16 sexual offenders. A more extensive replication study is currently being prepared in South Carolina.

MST With Chronic Juvenile Offenders, 1995. This study examined the long-term effects of MST versus individual therapy (IT) on the prevention of criminal behavior and violent offending among 176 juvenile offenders at high risk for committing additional serious crimes. Results from multiagent, multi-method assessment batteries conducted pretreatment and posttreatment showed that MST was more effective than IT in improving key family correlates of antisocial behavior and in ameliorating adjustment problems in individual family members.

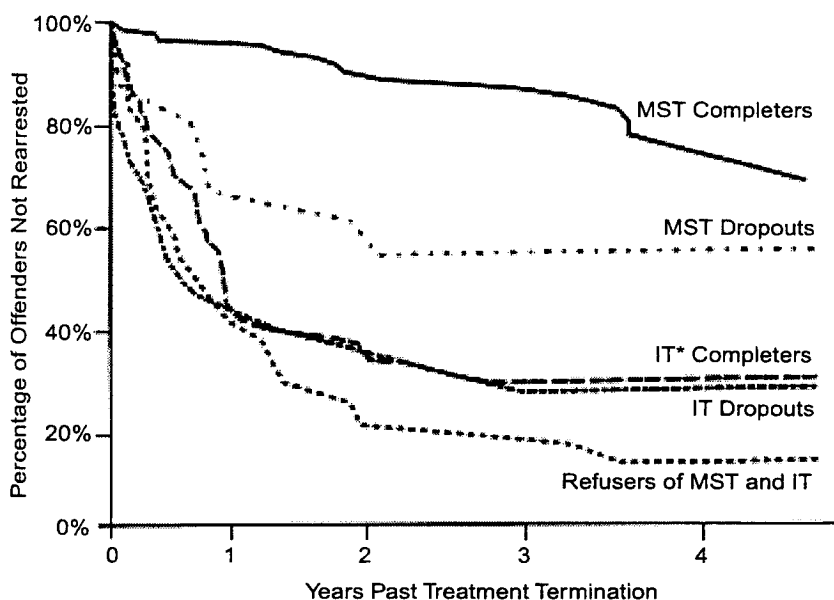
Moreover, a 4-year followup of rearrest data showed that MST was more effective than IT in preventing future criminal behavior, including violent offending. For example, 4-year recidivism was 22 percent for youth who received MST compared with 72 percent for youth who received IT and 87 percent for youth who refused to participate in either treatment (figure 3).

Memphis, Tennessee

MST With Inner-City Juvenile Offenders, 1986. This study evaluated the efficacy of MST compared with usual community treatment for inner-city juvenile offenders and their families. At posttest, the adolescents who received MST evidenced significant decreases in conduct problems, anxious-withdrawn behaviors, immaturity, and association with delinquent peers, based on maternal reports.

Observational measures showed that mother-adolescent and marital relations in these families were significantly warmer, mother-adolescent interactions were less aggressive, mothers' interactions were more supportive, and adolescents were significantly more involved in family interactions. In contrast, families who received usual community treatment evidenced no positive changes and showed deterioration in observed affective family relations.

Figure 3: Columbia, Missouri, Delinquency Project: Survival Analysis



*Individual Therapy

MST Versus Behavioral Parent Training in the Treatment of Child Abuse and Neglect, 1987. This study randomly assigned abusive families and neglectful families either to MST or behavioral parent training. At posttest, parents who received either treatment showed reduction in emotional distress, overall stress, and severity of identified problems. Analyses of sequential observational measures, however, showed that MST was more effective than parent training at restructuring parent-child relations in those behavior patterns that differentiate maltreating families from nonproblem families.

Following MST, maltreating parents controlled their children's behavior more effectively, maltreated children exhibited less passive noncompliance, and neglecting parents became more responsive to their children's behavior.

Simpsonville, South Carolina, and Columbia, Missouri

The Effects of MST on Substance Use and Abuse in Juvenile Offenders, 1991. Data from two independent evaluations of the efficacy of MST in treating serious juvenile offenders focused specifically on reductions in substance use and abuse.

Arrest data in the Missouri project collected for an average of 4 years of post-treatment showed that youth who participated in MST had a significantly lower rate of substance-related arrests than youth who participated in individual counseling (4 percent versus 16 percent). Similarly, in the Simpsonville project, youth in the MST condition reported significantly less soft-drug (alcohol and marijuana) use at posttreatment than did youth who received usual services.

Federally Funded Projects Under Way

Charleston, South Carolina

MST With Substance Abusing/Dependent Delinquents, 1992-1997. This project, funded by the National Institute on Drug Abuse, is evaluating the effectiveness of MST with substance abusing/dependent delinquents and their families in comparison with usual community services. In its fifth year of funding, the project has randomly assigned 118 substance abusing/dependent youth to treatment conditions, and preliminary findings are quite positive. Fully 98 percent of families assigned to the MST condition have completed a full course of treatment, whereas only

22 percent of families assigned to usual services received any substance abuse or mental health services during their first 5 months in the program.

Data analyses show that, in comparison with delinquents and families receiving usual services, youth in the MST condition evidenced decreased substance use at posttreatment and had 26 percent fewer rearrests and a 40-percent reduction in days incarcerated at an approximately 1-year followup.

Moreover, cost analyses have shown that the costs of MST were nearly offset by savings incurred as a result of reductions in days of out-of-home placement during the year following referral.

MST Using Family Preservation as an Alternative to the Hospitalization of Youth Presenting Psychiatric Emergencies, 1994–1999. This NIMH-funded study evaluates MST as a family-based alternative to the costly and clinically unproven practice of hospitalizing youth presenting psychiatric emergencies such as psychosis and threats of suicide and homicide. Community-based emergency psychiatric services are being blended with MST to safely prevent hospitalization and reduce the symptoms and environmental factors precipitating the crisis. Analyses will focus on the clinical- and cost-effectiveness of this blending.

Blending MST With the Community Reinforcement Approach in Treating Substance Abusing Parents of Young Children, 1996–1998. In collaboration with State substance abuse and mental health authorities and funded by the Center for Mental Health Services, the Family Services Research Center is conducting a quasi-experimental evaluation of an innovative treatment and service delivery model targeting substance-abusing parent figures of young children. The treatment service is based on ecological models of behavior and blends crucial components of MST, the community reinforcement approach, and innovations that have occurred at the local level in treating adult substance abusers.

The Charleston Collaborative Project: A Family-Based Approach to the Safe and Efficacious Reunification of Abused and Neglected Children With Their Families, 1996–1997. Several local and State agencies are collaborating to develop effective family-based services for children who have been taken into custody because of abuse or neglect.

Funded by the South Carolina Department of Health and Human Services, the Family Services Research Center is conducting a randomized evaluation of the clinical- and cost-effectiveness of these services.

Orangeburg and Spartanburg, South Carolina

MST Using Family Preservation With Serious Juvenile Offenders Living in Rural Areas, 1991–1997. Funded by NIMH, this study examined the effects of MST on treating violent and chronic juvenile offenders and their families in the absence of ongoing treatment fidelity checks. Across two public sector mental health sites, 155 youth and their families were randomly assigned to MST versus usual juvenile justice services. Although MST improved adolescent symptomatology at posttreatment and decreased incarceration by 47 percent at a 1.7-year followup, findings for decreased criminal activity were not as favorable as observed on other recent trials of MST.

However, analyses of parent, adolescent, and therapist reports of MST treatment adherence indicated that outcomes were substantially better in cases where treatment adherence ratings were high. These results, which are expected to be published later this year, highlight the importance of maintaining treatment

fidelity when disseminating complex family-based services to community settings.

Sumter, South Carolina

Meeting the Mental Health and Substance Abuse Needs of Pregnant Adolescents and Adolescent Parents, 1996–2000.

In collaboration with Sumter School District 17 and funded by the Head Start Bureau of the U.S. Department of Health and Human Services Administration on Children, Youth and Families, FSRC is conducting a qualitative and quantitative evaluation of a program of integrated substance abuse, mental health, primary care, and educational/vocational services for pregnant adolescents and adolescent parents.

Conclusion

MST has demonstrated decreased criminal activity and incarceration in studies with violent and chronic juvenile offenders, and results are promising in studies of other populations that present complex clinical problems. The success of MST is based on several factors, including its emphasis on addressing the known causes of delinquency; the provision of treatment services where the problems are—in home, school, and community settings; and a strong focus on issues of treatment adherence and program fidelity.

Recognizing the viability of the MST approach, OJJDP will be funding the University of South Carolina Consortium on Children, Families, and the Law to produce materials that will guide the establishment of supervisory and organizational structures necessary to develop, maintain, and evaluate effective MST programs. The consortium will create startup, supervisory, and organizational manuals and measurement methods that promote MST treatment fidelity, and will establish MST programs in several new sites. This project will help to provide a means for effective, large-scale dissemination and evaluation of the MST model.

For further information about program development, dissemination, and training, contact:

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References

- Borduin, C.M., S.W. Henggeler, D.M. Blaske, and R. Stein. 1990. Multisystemic treatment of adolescent sexual offenders. *International Journal of Offender Therapy and Comparative Criminology* 34: 105-113.
- Borduin, C.M., B.J. Mann, L.T. Cone, S.W. Henggeler, B.R. Fucci, D.M. Blaske, and R.A. Williams. 1995. Multisystemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. *Journal of Consulting and Clinical Psychology* 63: 569-578.
- Brunk, M., S.W. Henggeler, and J.P. Whelan. 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.
- Haley, J. 1976. *Problem Solving Therapy*. San Francisco, CA: Jossey-Bass.
- Henggeler, S.W. 1989. *Delinquency in Adolescence*. Newbury Park, CA: Sage.
- Henggeler, S.W., and C.M. Borduin. 1990. *Family Therapy and Beyond: A Multisystemic Approach to Treating the Behavior Problems of Children and Adolescents*. Pacific Grove, CA: Brooks/Cole. (Out-of-print; available from Family Services Research Center.)
- . 1995. Multisystemic treatment of serious juvenile offenders and their families. In I.M. Schwartz and P. AuClaire, eds. *Home-Based Services for Troubled Children*. Lincoln, NB: University of Nebraska Press.
- Henggeler, S.W., C.M. Borduin, G.B. Melton, B.J. Mann, L. Smith, J.A. Hall, L. Cone, and B.R. Fucci. 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.
- Henggeler, S.W., S.K. Schoenwald, C.M. Borduin, M.D. Rowland, and P.B. Cunningham. (in press). *Multisystemic Treatment of Antisocial Behavior in Youth*. New York, NY: Guilford.
- Henggeler, S.W., G.B. Melton, and L.A. Smith. 1992. Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology* 60: 953-961.
- Henggeler, S.W., G.B. Melton, L.A. Smith, S.K. Schoenwald, and J.H. Hanley. 1993. Family preservation using multisystemic treatment: Long-term followup to a clinical trial with serious juvenile offenders. *Journal of Child and Family Studies* 2: 283-293.
- Henggeler, S.W., S.G. Pickrel, M.J. Brondino, and J.L. Crouch. 1996. Eliminating (almost) treatment dropout of substance abusing or dependent delinquents though home-based multisystemic therapy. *American Journal of Psychiatry* 153: 427-428.
- Henggeler, S.W., J.D. Rodick, C.M. Borduin, C.L. Hanson, S.M. Watson, and J.R. Urey. 1986. Multisystemic treatment of juvenile offenders: Effects on adolescent behavior and family interactions. *Developmental Psychology* 22: 132-141.
- Henggeler, S.W., S.K. Schoenwald, S.G. Pickrel, M.J. Brondino, C.M. Borduin, and J.A. Hall. 1994. *Treatment Manual for Family Preservation Using Multisystemic Therapy*. Columbia, SC: South Carolina Health and Human Services Finance Commission.
- Higgins, S.T., and A.J. Budney. 1993. Treatment of cocaine dependence through the principles of behavior analysis and behavioral pharmacology. In L.S. Onken, J.D. Blaine, and J.J. Boren, *Behavioral Treatment for Drug Abuse and Dependence; National Institute on Drug Abuse Research Monograph 137*. Rockville, MD: NIH Publication No. 93-3684.
- Kendall, P.C., and L. Braswell. 1993. *Cognitive-Behavioral Therapy for Impulsive Children*, 2d Edition. New York, NY: Guilford.
- Mann, B.J., C.M. Borduin, S.W. Henggeler, and D.M. Blaske. 1990. An investigation of systemic conceptualizations of parent-child coalitions and symptom change. *Journal of Consulting and Clinical Psychology* 58: 336-344.
- Minuchin, S. 1974. *Families and Family Therapy*. Cambridge, MA: Harvard University Press.
- Munger, R.L. 1993. *Changing Children's Behavior Quickly*. Lanham, MD: Madison Books.
- Schoenwald, S.K., D.M. Ward, S.W. Henggeler, S.G. Pickrel, and H. Patel. 1996. MST treatment of substance abusing or dependent adolescent offenders: Cost of reducing incarceration, inpatient, and residential placement. *Journal of Child and Family Studies* 4: 431-444.

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