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CHAPTER 1

The Multisystemic Therapy Theory of Change

Conceptual and Empirical Bases

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IN THIS CHAPTER

- The theory of social ecology providing the conceptual framework for multisystemic therapy (MST).
- The MST theory of change.
- Research supporting the MST theory of change.

Every day, families seek help for the treatment of their seriously troubled teens; and every day, clinicians try to provide that help. Not all treatment is created equal, however. Some treatments are more effective for a particular set of problems than others; and, some are not effective for those problems at all. This book focuses on a treatment shown to be effective with youth experiencing serious antisocial behavior and their families: multisystemic therapy (MST). The book details the logic underlying the design of interventions used within MST; the content and process of those interventions; and the training, support, and feedback strategies used to support the implementation of treatment and attainment of treatment goals. For therapists and supervisors working in the hundreds of MST programs worldwide treating youth with serious antisocial behavior and their families, this volume serves as a treatment manual—guiding the design and delivery of clinical interventions. For practitioners not formally working within MST programs, we hope that the treatment principles and processes described herein can con-

tribute to the success of your work. For all others, this book aims to convey our optimism about the power of well-reasoned, scientifically tested, and well-implemented family- and community-based interventions to alter the life course of adolescents presenting serious antisocial behavior.

This first chapter presents the theoretical bases of MST. All treatments have an underlying theoretical framework that guides how the therapist conceptualizes and intervenes with clinical problems. At its simplest level, this framework suggests that if Problem B is caused by Variable A, then improving Variable A should lead to reductions in Problem B. From a cognitive-behavioral therapy (CBT) perspective, for example, if excessive negative thinking is hypothesized to lead to depression in adolescents, then implementing interventions that reduce negative thinking should decrease depression. This sequence—reducing a problem by treating its causes—defines the *theory of change* that underlies the intervention. Importantly, theories of change can be tested, and the results can support or refute the theory and its corresponding treatment approach.

Theory of Social Ecology

The MST theory of change is based primarily on several aspects of Bronfenbrenner's (1979) theory of social ecology.

Multidetermined Nature of Human Behavior

A central feature of the theory of social ecology pertains to the multidetermined nature of human behavior. Bronfenbrenner (1979, p. 3) likens the individual's ecological environment to "a set of nested structures, each inside the next, like a set of Russian dolls. At the innermost level is the immediate setting containing the developing person." Each concentric layer is then seen as representing a system (e.g., family, peer, school, neighborhood) or subsystem (e.g., siblings, extended family) that plays an integral role in the person's life. The theory of social ecology, therefore, differs from more traditional family systems theory in its focus on the influences of broader and more numerous contextual influences within a person's life, including settings and persons who do not come in direct contact with the adolescent (e.g., the mother's employer, the school board).

From a clinical perspective, this feature of the theory of social ecology suggests that adolescent functioning, including behavior problems, is influenced by the interplay among important aspects of the youth's life, such as family, friends, school, and neighborhood. That is, the social ecological model contends that adolescent behavior problems are multidetermined, and that the specific risk factors can vary from individual to individual. Logically, then, to be accurate and complete, clinical assessment must take

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into account a wide variety of possible contributors to behavior problems both within systems (e.g., lax parental supervision, association with deviant peers) and between systems (e.g., lack of caregiver knowledge about the youth's friends, conflictual caregiver interaction with school professionals). As detailed in subsequent chapters, the multifaceted MST assessment process drives the initial design and implementation of interventions to ameliorate the youth's identified problems. Moreover, therapists continue this assessment throughout the course of treatment as they identify factors contributing to observed intervention success or, when interventions fail, design subsequent strategies to address identified barriers to treatment success.

Ecological Validity

Another important aspect of social ecological theory is the emphasis placed on *ecological validity* in understanding development and behavior. The basic assumption of ecological validity is that behavior can be fully understood only when viewed within its naturally occurring context. This assumption is also vital to MST assessment and intervention design and delivery. Ecologically valid assessments require that the clinician understand the youth's functioning in a variety of real world settings (e.g., at home, in the classroom, during community activities) and that such understanding come from firsthand sources (e.g., caregivers, siblings, extended family, teachers, coaches) as much as possible. Similarly, therapeutic interventions are conducted with as much ecological validity as possible, which is one of reasons that the home-based model of service delivery, described in Chapter 2, is used exclusively in all MST programs. With MST, treatment services are provided where problems occur—in homes, schools, and community locations.

Reciprocal Nature of Human Interaction

A third clinically relevant emphasis of the theory of social ecology is the reciprocal nature of human interaction. The coercion mechanism (Patterson, Reid, & Dishion, 1992) provides an excellent example of reciprocal influences in parent–child relations. The father asks the teenager to do the dishes. The teenager argues and complains. The father decides it is less hassle just to do the dishes himself. The teenager stops arguing and complaining. The teenager has learned that arguing and complaining gets her out of work, and the father has learned that giving in to his daughter avoids an immediate headache. This notion of reciprocity is central to both MST assessment and intervention. At the assessment level, for example, reciprocity helps the therapist to understand why a caregiver might have given up attempting to discipline his or her adolescent—not out of a lack of love, but from a learned

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hopelessness. Likewise, and as discussed extensively in Chapter 3, therapists' design of treatment strategies takes into account the likely responses and counterresponses of all participants in the planned interventions.

The MST Theory of Change

Consistent with Bronfenbrenner's (1979) theory of social ecology, a primary assumption of the MST theory of change is that adolescent antisocial behavior (i.e., criminal activity, substance abuse, conduct problems) is driven by the interplay of risk factors associated with the multiple systems in which youth are embedded (i.e., family, peer, school, and neighborhood). Thus, to be optimally effective, interventions should have the capacity to address a comprehensive array of risk factors, though on an individualized basis (i.e., not all youth and families will have the same risk factors), while concomitantly building protective factors.

A second critical assumption in the MST theory of change is that caregivers are usually the main conduits of change. MST interventions, therefore, focus on empowering caregivers to gain the resources and skills needed to be more effective with their children. Then, as caregiver effectiveness increases, the therapist guides caregiver efforts to, for example, disengage their teenagers from deviant peers and enhance school performance. Thus, the family is viewed as critical to achieving and sustaining decreased adolescent antisocial behavior and improved functioning.

A simple depiction of the MST theory of change is provided in Figure 1.1. The therapist collaborates with the family, using family strengths (e.g., love of the adolescent, indigenous social support) to overcome barriers (e.g., caregiver substance abuse, debilitating stress, hopelessness) to caregiver effectiveness. As caregiver effectiveness increases (e.g., ability to monitor, supervise, and support the children), the therapist helps the caregivers design and implement interventions aimed at decreasing antisocial behavior by youth and improving their functioning across family, peer, school, and

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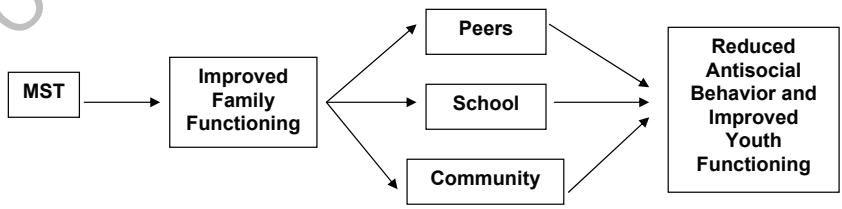

FIGURE 1.1. The MST theory of change.

community contexts. The ultimate aim is to surround the youth with a context that now supports prosocial behavior (e.g., prosocial peers, involved and effective caregivers, supportive school), rather than a context that is conducive to antisocial behavior. Similarly, as discussed in Chapter 7, treatment aims to surround the caregivers with indigenous (i.e., extended family, friends, neighbors) support to help sustain the changes achieved during treatment.

Support for the MST Theory of Change

As noted previously, the validity of the conceptual framework and theory of change underlying a treatment approach can be tested. The results of such tests might, or might not, support the treatment's theory of change. Fortunately for present purposes, the MST theory of change seems to be standing the tests of time, as evidenced by findings across several areas of investigation.

State-of-the-Art Family Therapies

In a recent overview of the field of family therapy, Lebow (2005) concluded that the most prominent of the new generation of family therapy approaches, including MST, share core attributes. Foremost, and consistent with the pioneers in family therapy, the new generation of methods maintains a systemic focus (e.g., importance of ongoing reciprocal influence, view that the whole is more than the sum of its parts). In addition, this new generation shares features that were not necessarily emphasized by the pioneers of family therapy. These features are relevant to the discussion of MST because they are consistent with the MST theory of change and clinical emphases described throughout this volume.

- *Consideration of biological basis of behavior.* The integration of pharmacotherapy with MST in treating youth with co-occurring attention-deficit/hyperactivity disorder (ADHD) provides a good example of the integration of biological and psychosocial interventions (see Chapter 6).
- *Emphasis on building the therapeutic alliance.* MST devotes considerable attention to cultivating and maintaining family engagement in treatment, which is critical to therapeutic progress. Similarly, engagement of others in the family's natural ecology who can influence what happens in treatment is also important. Engagement strategies and barriers to engagement are examined and addressed for every family receiving MST (see Chapters 2 and 3).

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- *Shaping intervention strategies to knowledge about specific difficulties.* MST interventions target the risk factors for serious antisocial behavior in adolescents that have consistently been identified in research. Similarly, as discussed briefly in Chapter 9, MST adaptations for other behavioral difficulties (e.g., child maltreatment, chronic health problems such as diabetes and HIV infection) have also been developed, and changes in the MST treatment protocol made for these adaptations are based on empirical knowledge of the factors that contribute to those particular problems.
- *Maintaining a multisystemic focus.* Crediting the influence of MST, Lebow (2005) noted that state-of-the-art family therapies often focus on multiple levels of the youth's ecology and sometimes the family is not even the primary target of interventions.
- *Enhancing the sustainability of change.* MST places great emphasis on changing the youth's social ecology in ways that will sustain prosocial behavior in everyday life (e.g., engaging the youth with prosocial peer networks such as sports teams, church youth groups, and other adult-supervised activities) and in developing an indigenous support system that can help the family maintain treatment gains (see Chapter 7).
- *Emphasizing family strengths.* MST views family (and extrafamilial) strengths as key levers for therapeutic change. All aspects of MST interventions and quality assurance/improvement are explicitly strength focused.
- *Considering client goals.* As detailed in Chapter 2, MST uses a well-specified process to identify and articulate the exact goals of treatment, and family members (as well as, for example, teachers and court personnel) are essential to defining such goals.
- *Tracking outcomes.* MST has played a leadership role in promoting increased provider accountability through the tracking of client outcomes. The continuous tracking of targeted outcomes is one of the central principles of MST (see Chapter 2). Moreover, outcome assessment is an integral component of the MST quality assurance/improvement system, and we are continually trying to improve the efficiency and validity of outcome tracking in MST programs worldwide (see Chapter 10).
- *Attending to culture.* The cultural context of children and their families is fundamental to the social ecological model. Thus the design and implementation of MST interventions take into account the cultures of the family and its social ecology. In addition, every effort is made to recruit and retain therapists who understand, or reflect, the cultures of the families and communities being served. Indeed, as reviewed by Huey and Polo (2008) and Schoenwald, Heiblum, Sal-

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dana, and Henggeler (2008), MST has been implemented successfully with youth and families from many different cultural backgrounds (e.g., African American, Hispanic, Pacific Islander, Scandinavian, Maori, Native American).

Research on the Determinants of Antisocial Behavior in Adolescents

A major impetus for the original development of MST in the late 1970s was the fact that existing treatments for delinquency, which had little empirical support, focused on a limited subset of the variables known to be associated with adolescent criminal behavior. Although researchers had clearly shown that delinquency and other aspects of child psychopathology were associated with child, family, peer, school, and neighborhood variables across the youth's social ecology, the prevailing treatments typically focused on a very limited subset of these risk factors. Logically, it seemed reasonable to hypothesize that such a narrow clinical focus doomed these treatments to failure, even when delivered by talented therapists. In light of these findings (i.e., current treatments of delinquency were ineffective, and adolescent behavior problems were multidetermined), Henggeler and his colleagues argued in *Delinquency and Adolescent Psychopathology: A Family–Ecological Systems Approach* (Henggeler, 1982, with Borduin contributing chapters in this volume) that to be effective, treatments must consider the multiple determinants of serious clinical problems, with the family viewed as primary.

Treatment developers in the areas of conduct disorder, delinquency, and adolescent substance abuse owe a great debt to the many talented researchers who have explicated the causes and correlates of antisocial behavior during childhood and adolescence. Among a host of important investigations, the major longitudinal studies conducted by Elliott (e.g., Elliott, 1994a), Loeber (e.g., Loeber, Farrington, Stouthamer-Loeber, & Van Kammen, 1998), and Thornberry (Thornberry & Krohn, 2003) stand out. Although some differences in risk factors for different populations (e.g., males vs. females, whites vs. African Americans, early vs. late adolescence) have emerged, findings from these and other studies of antisocial behavior in adolescents have been remarkably consistent throughout the past decades. *Antisocial behavior in adolescents is multidetermined by factors within the youth and across his or her social ecology (i.e., family, peers, school, and neighborhood).* Based on several excellent literature reviews (Biglan, Brennan, Foster, & Holder, 2004; Hoge, Guerra, & Boxer, 2008; Loeber et al., 1998), Table 1.1 provides a brief overview of those factors that are amenable to treatment (i.e., risk factors that are not amenable to interventions, such as genetic loadings and prenatal exposure to toxins, are not included).

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TABLE 1.1. Key Causes and Correlates of Antisocial Behavior in Adolescents

Youth level

- ADHD, impulsivity
- Positive attitudes toward delinquency and substance use
- Lack of guilt for transgressions
- Negative affect

Family level

- Poor supervision
- Parental substance abuse and mental health problems
- Inconsistent or lax discipline
- Poor affective relations between youth, caregivers, and siblings

Peer level

- Association with drug-using and/or delinquent peers
- Poor relationship with peers, peer rejection

School level

- Academic difficulties, low grades, having been retained
- Behavioral problems at school, truancy, suspensions
- Negative attitude toward school
- Attending a school that does not flex to youth needs (e.g., zero-tolerance policy)

Neighborhood level

- Availability of weapons and drugs
- High environmental and psychosocial stress (e.g., violence)

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Empirical Tests of the MST Theory of Change

Even for treatments of youth emotional or behavioral problems with demonstrated effectiveness, theories of change have rarely been tested (Kazdin, 2007). Yet, as noted previously, such evaluation is central to examining the validity of the conceptual basis of a psychosocial treatment. Several areas of research converge to support the MST theory of change articulated in Figure 1.1.

Results from MST Clinical Trials

First, as detailed in Chapter 9, rigorous evaluations (i.e., randomized clinical trials—the gold standard of research) with juvenile offenders have shown that MST can significantly reduce youth antisocial behavior (i.e., criminal offending, substance use) in comparison with other types of interventions. Important for examining the MST theory of change, many of these same studies also showed that MST was effective in changing key family (e.g., improved parenting) and peer (e.g., decreased association with deviant peers) variables that are linked with adolescent antisocial behavior.

Although these findings do not demonstrate that improved family relations and decreased association with deviant peers directly caused the reductions in youth antisocial behavior, such findings are consistent with this possibility.

Direct Tests of MST Mechanisms of Change

A second line of research tests the MST theory of change directly through advanced statistical methods. Using data from separate MST clinical trials with serious juvenile offenders (Henggeler, Melton, Brondino, Scherer, & Hanley, 1997) and substance-abusing offenders (Henggeler, Pickrel, & Brondino, 1999), Huey, Henggeler, Brondino, and Pickrel (2000) showed that, across both studies, therapist adherence to MST was associated with improved family relations and decreased association with delinquent peers, which, in turn, were associated with reductions in delinquent behavior. Figure 1.2 depicts the combined findings from these studies.

More recently, as part of a randomized trial of MST with juvenile sexual offenders, Henggeler et al. (in press) found that favorable MST effects on reducing youth antisocial behavior were mediated by increased follow-through on discipline practices as well as decreased caregiver disapproval of and concern about the youth's deviant peers over a 12-month follow-up (see Figure 1.3). These findings suggest that MST empowered caregivers to better identify friends that were having a negative influence on their adolescents, advise them to stop associating with such friends, and follow through on planned discipline. These behaviors, in turn, led to decreased antisocial

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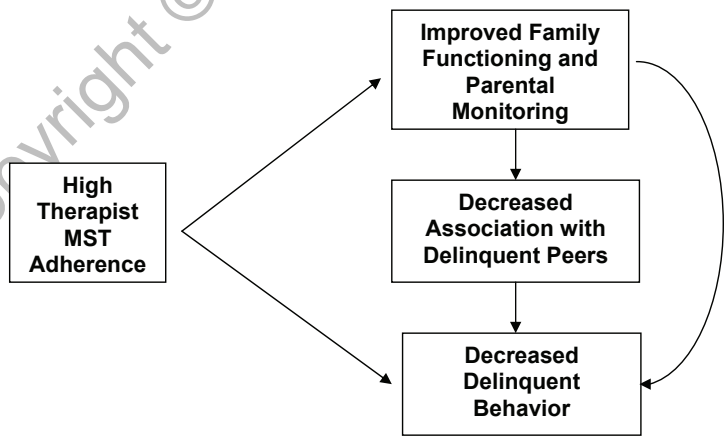

FIGURE 1.2. MST mechanisms of change with serious and drug-abusing juvenile offenders.

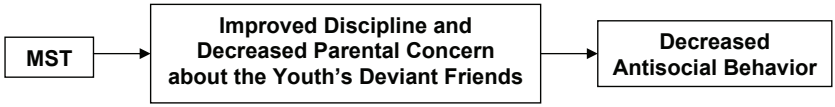

FIGURE 1.3. MST mechanism of change with juvenile sexual offenders.

behavior on the part of the juvenile sexual offenders. Thus, the three outcome studies produced similar results that were consistent with the MST theory of change. *MST (or adherence to MST) altered key family and peer risk factors for criminal behavior, and these changes in risk factors resulted in decreased adolescent antisocial behavior.*

Mechanisms of Change for Other Evidence-Based Treatments of Youth Antisocial Behavior

The third line of research supporting the MST theory of change pertains to the few studies that have examined mechanisms of change for other evidence-based treatments of youth antisocial behavior. In a study of Multidimensional Treatment Foster Care (MTFC; Chamberlain, 2003) in which juvenile offenders received either MTFC or group home care, Eddy and Chamberlain (2000) showed that the positive effects of MTFC on adolescent criminal activity were mediated by caregiver behavior management practices and adolescent association with deviant peers. Similarly, in an indicated prevention trial of the *Coping Power* program with at-risk preadolescent boys, Lochman and Wells (2002) found that inconsistent parental discipline was a key mediator of subsequent youth antisocial behavior outcomes.

In summary, these three lines of research—state-of-the-art work in the field of family therapy, research on the causes and correlates of antisocial behavior in adolescents, and empirical tests of the MST theory of change—provide relatively strong support for the MST theory of change and the theory of social ecology on which MST is based.

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Clinical Implications of the MST Theory of Change

Together, social ecological theory, research on the causes and correlates of antisocial behavior, the MST theory of change, and research supporting this theory of change have several clear implications for the treatment of serious antisocial behavior in adolescents.

- *Adolescent antisocial behavior is multidetermined.* Thus, effective interventions must have the capacity to address a comprehensive array of

risk factors across the multiple systems in which adolescents are embedded. For reasons of efficiency (i.e., not all youth have the same risk factors), these risk factors are addressed on an individualized basis. Moreover, consistent with a strength-based focus, considerable attention is also devoted to building protective factors such as parenting competencies (see Chapter 3), youth problem-solving skills (see Chapter 6), and social support (see Chapter 7).

- *Families should be empowered to address youth problems.* Caregivers are viewed as the keys to obtaining sustainable outcomes for the youth, and improved parenting is often the key mechanism in achieving favorable youth outcomes. MST identifies and then addresses the barriers to improved parenting, such as caregiver substance abuse (see Chapter 8). Then, caregiver skills and competencies are enhanced to address identified problems (see Chapter 3).
- *The negative influence of deviant peers must be addressed.* As noted previously, association with delinquent and drug-using peers is a powerful predictor of youth behavior problems. With the therapist's guidance, caregivers must do everything possible to decrease youth association with deviant peers and promote youth bonding with prosocial peers (see Chapter 4).
- *School or vocational performance must be enhanced.* School provides excellent opportunities for prosocial development, and education and job skills are critical to future economic and social functioning of the youth. Employment in a position that can lead to a legitimate career is a major predictor of desistance of criminal behavior (Sampson & Laub, 2005) (see Chapter 5).
- *An indigenous support system should be developed to help the youth and family sustain treatment gains.* Many families referred to MST programs have few indigenous resources (e.g., friends, neighbors, and extended family they can count on for help) that can be accessed in times of heightened stress. MST strives to help families develop social support networks to sustain prosocial behavior (see Chapter 7).

In conclusion, we hope that our discussions of the theory of social ecology that underlies MST, the MST theory of change, and the several substantive areas of research that support these perspectives have provided a strong rationale for the conceptual foundations of MST.

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