Chapter 9
Multidimensional Treatment Foster Care for Preschoolers: A Program for Maltreated Children in the Child Welfare System

Kathryn S. Gilliam and Philip A. Fisher

Maltreated children are at risk for many challenges across the lifespan, including behavioral and health problems (Burns et al., 2004), developmental delays (Landsverk, Garland, & Leslie, 2002), and psychopathology (Briggs-Gowan, Horwitz, Schwab-Stone, Leventhal, & Leaf, 2000). Although not every maltreated child will end up on a negative developmental trajectory, many will. Early intervention is essential in mitigating the negative effects of maltreatment and other forms of "toxic stress" in childhood (Shonkoff, 2010). Experiences of maltreatment in infancy and early childhood can be particularly damaging and are unfortunately a frequent occurrence for young children in the child welfare system. During the first few years of life, children develop maternal attachment, begin to learn how to regulate emotions, and experience dramatic physical and cognitive development. This is a time of great growth. However, it is also accompanied by vulnerability. Foster children who have experienced maltreatment early in life are at higher risk for deficits in executive functioning and developmental delays (Pears & Fisher, 2005; Pears, Fisher, Bruce, Kim, & Yoerger, 2010). Therefore, evidence-based early interventions targeting this young group are likely to have a substantial impact on the developmental trajectories of these children, shifting them in a more positive direction.

Mitigating these risks is the goal of the Multidimensional Treatment Foster Care for Preschoolers program (MTFC-P; Fisher, Ellis, & Chamberlain, 1999). MTFC-P targets three focal areas in this population of young maltreated children: behavior problems, emotion regulation, and developmental delays (Landsverk et al., 2002; Maughan & Cicchetti, 2002; Pears & Fishers, 2005). Deficits in these areas are related to various negative outcomes both during childhood and beyond, including increased risk for placement disruptions (Newton, Litrownik, & Landsverk, 2000),

K.S. Gilliam (✉)
Department of Psychology, University of Oregon, Eugene, OR, USA

P.A. Fisher, Ph.D.
Department of Psychology, University of Oregon, Eugene, OR, USA

Oregon Social Learning Center, Eugene, OR, USA
e-mail: kgilliam@uoregon.edu; philf@uoregon.edu

S. Timmer and A. Urquiza (eds.), *Evidence-Based Approaches for the Treatment of Maltreated Children*, Child Maltreatment 3, DOI 10.1007/978-94-007-7404-9_9,

further development of internalizing and externalizing behaviors and school-failure (Zima et al., 2000). One of the major mechanisms of change in MTFC-P lies in training the foster parents and long-term placement caregivers in parenting skills that, once acquired and frequently used with the child, can have profound effects on child behavior and development. The focus on parent training as a means for effecting change in the child arises from the research findings and subsequent conceptual model developed by Patterson and colleagues at the Oregon Social Learning Center. A short history of the development of the MTFC-P intervention is provided below, followed by a description of the conceptual model underpinning MTFC-P, a detailed description of the intervention, and a review of MTFC-P's evidence base. The chapter concludes with a case study of an MTFC-P participant.

History of MTFC Interventions

Adapted for use with young foster children, MTFC-P is an extension of Multidimensional Treatment Foster Care (MTFC), an evidence-based intervention designed to treat children in the juvenile justice system. The MTFC family of interventions evolved from research on the development of antisocial behavior at the Oregon Social Learning Center beginning in the 1960s (Patterson, 1982; Patterson, Debaryshe, & Ramsey, 1989; Patterson & Fagot, 1967). The cornerstone of this research involved a social learning–based model of familial interactions and parenting practices. Extensive longitudinal research on families revealed key elements of parenting to be highly predictive of child and adolescent problem behavior, particularly antisocial behavior (Loeber & Dishion, 1983; Patterson, Dishion, & Bank, 1984). These parenting practices led to coercive patterns of interaction between parents and children that escalated over time, reinforcing aversive and negative behaviors in all family members.

Although parenting variables were a major focus of the work of Patterson and colleagues, a variety of other variables thought to be involved in the development, maintenance, and escalation of child antisocial behavior were also assessed. Many of these variables demonstrated a relationship with child problem behavior and its associated negative outcomes. For example, parents from a low-income background with high levels of daily stress (DeGarmo, Forgatch, & Martinez, 1999), those with depression (Gartstein & Fagot, 2003) or those who have a child with a difficult temperament (Leve, Kim, & Pears, 2005) often experience more child problem behavior. However, researchers have consistently shown that these variables exert a distal influence over the development of antisocial behavior: that is, they affect child behavior and outcomes primarily through their tendency to disrupt parenting (Bank, Forgatch, Patterson, & Fetrow, 1993; Conger et al., 1992; Conger, Patterson, & Ge, 1995; Larzelere & Patterson, 1990). In other words, a parent being depressed or having a temperamentally difficult child is primarily associated with child problem behavior to the extent that it leads parents to employ parenting strategies most predictive of negative outcomes. Thus, parenting continues to be identified as one of

the most proximal determinants of child behavior (Patterson, Forgatch, & DeGarmo, 2010; Patterson, Reid, & Dishion, 1992) and is a main target for intervention within the models developed at the Oregon Social Learning Center.

Based on the knowledge that parenting practices strongly predict child outcomes, Patterson and colleagues developed strategies that formed the basis of interventions to assist parents in transforming how they interact with their child. The initial intervention product of this research was Parent Management Training (PMT; Forgatch & Patterson, 2010), which involved training parents to practice consistent discipline, set clear limits, and give adequate positive reinforcement for prosocial behaviors. Overall, PMT, as the first of the social learning–based parenting interventions, has been employed with thousands of families, and numerous randomized controlled trials have established PMT as an evidence-based family intervention (Dishion, Patterson, & Kavanagh, 1992; Ogden & Hagen, 2008; Patterson, Chamberlain, & Reid, 1982; Walter & Gilmore, 1973; Wiltz & Patterson, 1974).

Following successful development of PMT, researchers became interested in applying this social-learning-based model to more high-risk samples, specifically to families with adolescents at risk for juvenile delinquency and incarceration (Chamberlain & Reid, 1998). In line with this aim, in the early 1980s, Oregon state policy makers issued a call for community-based alternatives to residential care for adolescents involved with the juvenile justice system who had severe emotional and behavioral problems (Leve, Fisher, & Chamberlain, 2009). Multidimensional Treatment Foster Care (MTFC) was developed in response to this need.

MTFC is based on the assumption that in a family with severe problems such as juvenile delinquency, child aggression, or an inability of the parents to provide adequate support to the child, parenting training was an inadequate intervention (Bank, Marlowe, Reid, Patterson, & Weinrott, 1991; Chamberlain & Reid, 1998; Patterson, 2002). In contrast, within MTFC, children were placed with foster families receiving specialized training and ongoing support in behavioral parenting approaches (Chamberlain, 2003). While each child was in foster care, the family of origin received training in the same parenting techniques. This facilitated successful reintegration of the child with the family of origin (Fisher, Kim, & Pears, 2009).

MTFC (Chamberlain, 2003) has been found to positively impact outcomes across several randomized clinical trial studies (Chamberlain, Leve, & DeGarmo, 2007; Chamberlain & Reid, 1998; Eddy & Chamberlain, 2000; Eddy, Whaley, & Chamberlain, 2004). As mentioned previously, MTFC is intended for children in foster care and juvenile justice programs who would otherwise require placement in more restrictive settings such as residential care. MTFC allows children and youths to receive services in the naturalistic context of a family setting and remain in the communities in which they live.

The core components of MTFC involve the training of both foster care parents and the individuals likely responsible for permanent care to provide consistent parenting and limit-setting (Chamberlain, 2003). During the intervention, children and adolescents experience these positive parenting practices in the foster placement while also receiving additional services from both an individual therapist and a behavioral specialist. At the conclusion of the intervention, children and adolescents

transition to a permanent placement in which the same parenting techniques seen in the foster care home are employed, providing a consistent structure conducive to maintenance of intervention gains. Although MTFC was originally developed in Oregon, the program has been successfully implemented at over 50 sites in the United States, more than 15 sites in England, and more than 20 sites in Norway, Denmark, Sweden, the Netherlands, and New Zealand.

MTFC-P, developed as an extension of MTFC for preschool aged children, is particularly relevant for this volume considering its focus on children with histories of maltreatment. Beginning in the late 1990s, Fisher et al. (1999) adapted the MTFC program to meet the needs of this younger population (ages 3–5 years). A variety of factors, including early disruption of attachment relationships, prenatal drug and alcohol exposure, abuse, and neglect, make this a particularly high-risk population (Fisher, Burraston, & Pears, 2005; Fisher et al., 1999; Klee, Kronstadt, & Zlotnick, 1997). Consideration of these risk factors informed the adaptations employed in the development of MTFC-P. Key differences between the MTFC and MTFC-P programs reflect an emphasis on developmental considerations in the preschool population targeted by MTFC-P. Whereas the original MTFC contains an individual child therapy component, MTFC-P includes a therapeutic playgroup to help children prepare for success at school entry (Pears, Fisher, & Bronz, 2007). This therapeutic playgroup focuses on developmentally salient skills related to socio-emotional competence and emotion regulation that become increasingly important during school.

Conceptual Foundation of MTFC-P

The philosophy behind the MTFC-P program, like that of the original MTFC program, is that long-term outcomes for maltreated foster children might be most improved when treatment occurs in the context of family and community. Rather than removing the child from these naturalistic settings and placing him/her in residential care, MTFC-P services are delivered in the context of specially trained and highly supervised foster parents and through school consultation. As such, the child learns what is expected from him/her in a typical family situation, and, while the child is in foster care, the individuals who will be providing the long-term care for the child (i.e., the biological family, relatives, or others with whom the child will live after completing treatment) are instructed in the parenting strategies to which the child is being exposed in the foster home. By maintaining consistency in the discipline strategies and in the support for positive behavior across these contexts, the program greatly increases the potential for the child to function in family and school settings over the long term (Fisher et al., 2005, 2009).

Research findings related to the deleterious effects of early adversity on development informed the design of MTFC-P. The emphasis on emotion regulation was guided by research findings suggesting that experiences of early adversity such as neglect and placement disruption negatively affect both the development of

physiological systems for stress regulation, particularly the hypothalamic-pituitary-adrenal (HPA) axis (Fisher, Gunnar, Dozier, Bruce, & Pears, 2006) and also executive functioning, including inhibitory control (Pears & Fisher, 2005; Pears et al., 2010). Responsive parenting is a critical component of the development of successful regulation skills in the face of stress. From infancy through middle childhood, children are dependent on external regulation from caregivers to buffer their developing stress regulatory systems from insult (Fisher & Gunnar, 2010). In situations where the child does not receive developmentally supportive, responsive caregiving, the HPA axis appears to have the potential to become dysregulated as demonstrated by both patterns of hypocortisolism and hypercortisolism (Fisher & Gunnar, 2010). Additionally, poor inhibitory control, a component of executive function, is common amongst maltreated foster care children and contributes to the maintenance of problem behaviors through a reduced ability to process feedback and inhibit responses appropriately (Bruce, McDermott, Fisher, & Fox, 2009; Pears et al., 2010).

Interventions that keep the child within a family context are uniquely suited to bring about sustainable change in behavior and also neurobiological systems like the HPA axis due to the significant influence of family environment on behavior in parents and children, as demonstrated by Patterson and colleagues' early research (Patterson & Fagot, 1967; Patterson et al., 1992). For the maltreated child, the environment of his or her family of origin has been characterized by a lack of security that undermines typical development, particularly that of the stress response system and related neural systems such as the prefrontal cortex which is implicated in executive function and inhibitory control. Considering the links both between parenting practices and child behavior, and also those between early adversity and neurobiological functioning, interventions targeting consistent parenting in both the foster home and the permanent placement hold promise for mitigating the effects of early adversity on both behavior and neurobiology. In MTFC-P, the child's birth family (or adoptive family if parental rights have been terminated) is involved in treatment to increase the likelihood that an environment of consistent discipline, limit-setting, and positive reinforcement is maintained when the child leaves the foster home and enters the long-term placement, thus increasing the child's chances of attaining a more positive developmental trajectory.

Finally, MTFC-P is focused on issues specific to young children who have experienced abuse and neglect, such as developmental delays and emotion regulation (Landsverk et al., 2002; Maughan & Cicchetti, 2002). The intervention is intended to provide the children and parents with the tools for these high-risk children to begin to make adequate developmental progress. An integral part of this approach is making a smooth transition to kindergarten. MTFC-P uses a therapeutic playgroup to target this potentially difficult developmental time by providing a safe and structured environment in which children can develop the socioemotional and academic skills necessary for school success. In playgroup, the children learn and practice regulating their emotions and engaging in positive social interactions with peers. Additionally, children are taught early literacy skills that they may not have received in their foster homes but that have been demonstrated to be critically important for

success in school (Senechal & LeFevre, 2002). Increasing the likelihood of a smooth transition to kindergarten by promoting emotion regulation skills and prosocial behaviors that are critical for future school success (Blair, 2002) is especially important for this population given their increased risk for behavioral problems in school and also school failure (Zima et al., 2000). If the children enter kindergarten prepared for the transition, they stand to benefit greatly from the structured learning environment and opportunities for social interactions provided in school.

Program Components

MTFC-P is a multicomponent program that includes services to children, foster parents, and long-term placement caregivers (e.g., birth families and adoptive families). After a child is placed in an MTFC foster home, services begin not only for the child but also for the foster parent as well as for the permanent placement caregiver. Services for the foster parent include parent training, daily phone calls assessing the child's problem behavior and the foster parent's level of stress, weekly support groups, and 24-h crisis support. Services for the child include a behavior support specialist who assists the child in naturalistic settings in which the child may have behavioral difficulties, such as on the playground or in the grocery store, and also the therapeutic playgroup. Permanent placement caregivers receive parent training similar to that provided to the foster parents. A key underlying principle of MTFC-P is that services should be delivered in a proactive manner. That is, rather than waiting until child problems reach a point where his or her placement might be compromised, program staff members work collaboratively with the foster parents to prevent small problems from escalating. Another key principle of MTFC-P is the stratification of roles among the intervention staff members to increase efficient administration of the intervention. Though MTFC-P is an intensive intervention requiring a number of staff members, the clearly defined and stratified role of each member maximizes the case load of each individual due to the efficiency achieved by parceling out responsibility for one relationship and/or component (i.e., foster parent trainer, Parent Daily Report (PDR) caller, etc.) to one individual, with little overlap in responsibilities across staff members. In this section, we describe both the various program components and also the corresponding staff roles.

Recruitment of Foster Parents

MTFC-P foster parents are recruited in a variety of ways, including advertisements in local newspapers, postings in public places such as community centers and schools, and word-of-mouth. One of the most effective strategies employed for recruiting MTFC-P foster parents is through the participating parents. Current MTFC-P foster parents know what kinds of skills the program requires, are familiar with the support provided, and are often strong advocates for the program.

The recruitment of foster parents begins with a screening telephone call by the foster parent recruiter and is followed by a home visit. During a home visit, the details of the program are presented to prospective foster parents. The home visit also allows the recruiter to determine if the home environment would be appropriate for caring for a high-needs child.

MTFC-P foster parents are a diverse group. Over the several decades in which this program has been operating, they have included married couples, single parents, individuals with and without parenting experience, and individuals with varying economic statuses, sexual orientations, and cultural backgrounds. The main quality that distinguishes MTFC-P foster parents is their interest in being part of a treatment team and having a considerable amount of contact with the program staff. Individuals who are not interested in such a high level of contact, who are unwilling to participate in the program activities (described below), or whose schedules preclude them from participating in these kinds of activities do not make good MTFC-P foster parents. Otherwise, there are no specific criteria for individuals to be selected to participate.

Foster Parent Training

The foster parent training consists of 20 h of instruction over the span of 1 weekend and a following weekday evening. During the training, they are introduced to the specific behavioral management models employed with children in the age group that they are planning to have in their home. Details of the program staffing structure and the services available to parents and children are also provided. Considerable emphasis during the training is placed on providing children with positive support for prosocial behavior, including the use of concrete reinforcement strategies. Some prospective foster parents are extremely resistant to the idea of rewarding children for positive behavior. In many instances, it is possible to work through this concern by helping the foster parents understand that such measures are necessary for reversing the negative patterns of interaction to which the child has grown accustomed. However, individuals unwilling to provide a high level of positive reinforcement are discouraged from continuing to participate in training. Essentially, the goal of training is to identify individuals who share the philosophy of the program, even if it is not one that they have a great deal of experience employing.

Ongoing Services to Foster Parents

After the child is placed in the MTFC-P foster home, direct services begin in earnest. Based on information available in the child's case file, an initial individualized daily treatment program is developed by program staff members in consultation with the foster parents. From the first day of placement, foster parents have daily contact with the program in the form of a 5- to 10-min daily telephone call to collect information about problem behaviors that have occurred in the past 24 h. The caller

uses a standardized checklist called the Parent Daily Report (PDR; Chamberlain & Reid, 1987). The foster parents are asked if each behavior on the PDR checklist occurred and, if so, whether it was stressful. The information collected via this telephone call is critical for ongoing case planning. It allows program staff members and foster parents to identify the most stressful commonly occurring behaviors, providing clear targets for the child behavior management program. In addition, because numbers of problem behaviors can be summed for each day (total problem behavior score), the PDR provides a method for assessing treatment progress over time. Finally, if foster parents report a great deal of stress or distress on a particular day, a program staff member can follow-up with more intensive contact to support the family.

In addition to daily telephone contact, all foster parents participate in a weekly support group meeting. At this meeting, program staff members review each child's progress using PDR data. The foster parents have a chance to present situations that were particularly challenging or positive for them. Other foster parents provide peer support and assistance in problem solving difficult child behavior. The meeting lasts for approximately 2 h, and childcare is provided along with snacks or a light meal.

The program staff provides support for emergency or crisis situations at all times. Although accommodations have been made to comply with a country's labor laws in some locations in which MTFC-P has been implemented, the idea that someone from the program is always available to help with difficult situations is a critical component of the program's success. Moreover, because MTFC-P uses a proactive approach to crisis management, the foster parents may feel less overwhelmed and alone when dealing with difficult circumstances, which might contribute to the low placement disruption rates that have been observed among MTFC-P foster homes (Fisher et al., 2009).

Services to Children

The MTFC-P foster children receive a comprehensive program of services. All children are placed on a behavior management program that is developmentally appropriate and targets both problem behaviors to be reduced and also prosocial behaviors to be increased. The behavior management program includes immediate tangible reinforcement for positive behavior, such as stickers or the use of star charts. The program expectations are that foster parents will maintain this reinforcement program with the children for the duration of their program participation.

Individual behavior programs are adjusted over time to meet the needs of the child. Foster parents provide input to the program staff via the aforementioned individual and group meetings to identify specific problems that require attention and to provide information about particularly effective methods for reinforcing positive behavior. The high degree of contact between the program staff and the foster parents allows each child's needs to be addressed on an ongoing basis. In addition to the behavior management program, a therapeutic playgroup is provided to help the children learn the skills they will need to be successful in school from both social and academic perspectives.

Services to Birth and Adoptive Families

During the time that the child is in MTFC-P, the program collaborates with the child welfare caseworker to identify the most likely long-term placement resource for the child. In many instances, this is the birth family from which the child came prior to entering foster care. In other instances, depending on the circumstances of the child, long-term care may be provided by close relatives or a nonrelative adoptive family. Program staff members work with birth and adoptive families to help teach them the parenting and behavior management skills that are being employed in the foster home. For example, they are taught how to implement a concrete system for reinforcing children's prosocial behavior and to use effective strategies to set limits around negative behavior without being overly harsh and coercive. Program staff members support these families during the child's transition into the permanent home. It is noteworthy that, in some instances, children stay with the MTFC-P foster family indefinitely rather than moving to another family. When this situation does occur, it is typically the best option due to the secure relationship likely already established over the course of the intervention. Services to the long-term placement caregivers continue until the child is stable in the home, as assessed by PDR data and the judgment of the treatment team, at which point services are discontinued.

Program Staffing Structure

One of the unique aspects of the MTFC-P program is the use of a team approach to providing services. Each treatment team contains a group of staff members with clearly defined roles. These roles are stratified and contain very little overlap. This set-up allows team members to focus primarily on the family needs related to their expertise. The treatment teams usually work with 12–15 children concurrently and their roles are as follows:

The program supervisor is responsible for coordinating the activities of all other team members and for serving as liaison between the program and any other services that the child and family is receiving. This individual is also the primary authority figure for the child and the foster family regarding limit setting or enforcing program rules. The program supervisor runs foster parent support group meetings and is available on an on-call basis at all times to manage crises.

The foster parent consultant provides additional support to the foster family and is often a former foster parent. The foster parent consultant delivers services via a home visit and frequent (at least weekly) telephone contact and participates as a co-leader in the weekly foster parent support group meetings. When the PDR caller indicates that foster parents have experienced a high level of stress on a given day, the foster parent consultant calls the foster parent to offer support. The foster parent consultant serves as an on-call backup if the program supervisor is not available.

The child receives support via individual sessions with the behavior support specialist, often a university student or other young person who is able to establish

rapport with the children in the program. As noted above, behavior support specialists often deliver services in the context of community settings (e.g., home, school, playground, grocery stores, etc.) to help the child learn prosocial skills in their naturalistic environment. The behavior support specialist is the primary individual service provider for children in the MTFC-P program, while in the original MTFC program both a behavior support specialist and individual child therapist work with the child one-on-one.

A family therapist works with the long-term placement caregivers to prepare them to receive the child following foster care. The specific strategies employed are described above and are derived directly from parent training approaches that were developed at the Oregon Social Learning Center. The family therapist is usually a masters or doctoral level professional.

The PDR caller maintains daily contact with the foster families. This individual is often a clerical-level staff member. It is essential that they establish good rapport with the foster families and take information accurately over the telephone. Moreover, this individual needs to be able to understand when foster parents are having a difficult time so that other program staff members can follow up as appropriate.

A consulting psychiatrist is employed to manage the child's medication. Although not all children in the program receive psychiatric medications, many of these children do, so it is helpful to have a single provider coordinating care in this area. The consulting psychiatrist works with the child and with the program staff to flesh out a complete picture of the child's needs.

Playgroup staff includes a playgroup lead teacher and an assistant teacher. These individuals run the weekly therapeutic playgroup, helping the children to develop socioemotional skills during peer interactions and to learn early literacy skills. They usually have early childhood education experience or are in university programs to train teachers.

MTFC-P Evidence Base

The results presented in multiple peer-reviewed articles document how MTFC-P participants show positive change in important outcome measures, particularly young, maltreated children. For example, in a comparison between MTFC-P and regular foster care, participation in the intervention predicted greater improvements in the behavioral adjustment of the participating children (Fisher, Gunnar, Chamberlain, & Reid, 2000). In fact, whereas the MTFC-P children showed reductions in behavioral problems from pre- to post-intervention, the regular foster children showed increases in behavioral problems over the same time period, indicating that MTFC-P might buffer against the further development of problem behavior (Fisher et al., 2000). Furthermore, these positive changes in the MTFC-P children were coupled with the MTFC-P parents' increased use of the positive parenting practices targeted by the program, including consistent discipline,

monitoring, and positive reinforcement. Thus, participation in MTFC-P is associated with improvements in child problem behaviors, likely achieved by the provision of support necessary to increase positive parenting practices within the long-term caregiver's home to improve the child's chances of future positive outcomes.

Although not directly targeted by intervention, participation in MTFC-P has also predicted increases in secure attachment behaviors (Fisher & Kim, 2007). Many maltreated young children, like those referred to MTFC-P, display disorganized or insecure attachment styles (e.g., Carlson, Cicchetti, Barnett, & Braunwald, 1989). Both the experience of maltreatment and also removal from the family of origin contribute to difficulties in forming secure attachments with current and future caregivers. The multiple placement disruptions common in high-risk foster care populations further jeopardize the child's ability to exhibit behaviors to foster the development of a secure attachment. Though clearly a relevant factor for maltreated young children in foster care, attachment can be challenging to assess in this population since the Strange Situation Paradigm (Ainsworth, Blehar, Waters, & Wall, 1978) most often used requires participation from an individual the child clearly views as a primary caretaker, which a foster child with a history of multiple placements may not have. To address this limitation in their investigation of the effect of MTFC-P on attachment behaviors, (Fisher and Kim, 2007) used the Parent Attachment Diary (PAD; Stovall-McClough & Dozier, 2000). The PAD asks the foster parent to report on the child's behavior over the past 2 weeks in response to situations that are frightening or distressing to the child, and these attachment-related behaviors are then coded in to secure, resistant, and avoidant categories of behavior. These assessments occurred every 3 months for 12 months post-intervention (Fisher & Kim, 2007). Results revealed that participation in MTFC-P is associated with an increase in the number of secure attachment behaviors (specifically, in the likelihood that the child will seek out the proximity of their caregivers when hurt, frightened, or separated from them). Conversely, foster care children not in the intervention showed a decrease in secure attachment behavior over time (Fisher & Kim, 2007). It is noteworthy that MTFC-P affects this important outcome variable, though the intervention is not attachment-focused. Thus, the key target variables of MTFC-P – the child's socioemotional development and the primary caregivers' consistent parenting – appear to be important components for the development of secure attachment behaviors over time.

The MTFC-P children also exhibit increased placement stability (Fisher et al., 2009). This outcome variable is particularly important from a prevention standpoint considering the literature documenting increases in risks for permanent placement failure related to a higher number of previous placements (Fisher et al., 2005; Wells & Guo, 1999). Fisher et al. (2009) found that the MTFC-P children, despite having experienced a significantly greater number of placements than foster children not receiving the intervention, had a significantly greater number of successful permanent placements over the 2-year period following participation in MTFC-P. Given the strong predictive power of placement stability for negative outcomes, the fact that MTFC-P can improve the likelihood of successful placement in young children is strong evidence for its potential for changing developmental trajectories in these children.

It is important to note that there is also evidence of MTFC-P's effectiveness at impacting neurobiological systems that have been negatively affected by early life stress (e.g., Bruce, Fisher, Pears, & Levine, 2009; Fisher et al., 2000; Fisher, van Ryzin, & Gunnar, 2011). One such system is that underlying stress regulation, often indexed by the stress hormone cortisol. In typically developing children, cortisol release peaks in the morning and decreases over the course of the day. In early childhood, regulation of this system is achieved primarily from the environment. Responsive caregiving characterized by consistent and appropriate responses to a child's distress provides external regulation of stress early in life and promotes the eventual development of the child's self-regulatory abilities. However, young foster children often do not have sufficient or consistent external regulation. As a result of this young foster children often show an abnormal diurnal cortisol rhythm, suggesting neurobiological effects associated with their histories of maltreatment specifically related to stress regulation (Bruce et al., 2009).

Fisher and colleagues (2007) have shown MTFC-P to have a preventative effect on this process. Specifically, while foster children not participating in the intervention showed a significant increase in HPA axis dysregulation over time, children in MTFC-P did not show this dysregulation but rather exhibited patterns of cortisol release more closely resembling those of community control children (Fisher et al., 2000, 2006; Fisher, Stoolmiller, Gunnar, & Burraston, 2007). Fisher and colleagues also found that MTFC-P children showed less cortisol dysregulation during transitions from one home to another, suggesting that the intervention may make this particularly vulnerable time less stressful for the child (Fisher et al., 2011).

Furthermore, MTFC-P appears to buffer the effects of caregiver stress on the HPA-axis regulation of the child (Fisher & Stoolmiller, 2008). When a caregiver experiences high levels of stress, the caregiver's ability to employ consistent parenting strategies is often diminished (Halme, Tarkka, Nummi, & Astedt-Kurki, 2006). This situation is particularly salient in the foster care context in which foster parents often must manage high levels of problem behaviors exhibited by high-risk foster children. In a randomized controlled trial of MTFC-P compared to regular foster care, the MTFC-P parents showed reduced levels of self-reported stress in response to child problem behavior, and this effect was maintained at a 1-year follow-up (Fisher & Stoolmiller, 2008). Additionally, the self-reported stress levels of the regular foster care parents increased over this time period, suggesting that MTFC-P may serve a protective function in the context of caregiver stress. Importantly, the increased levels of caregiver stress observed in foster parents not receiving the intervention were associated with lower morning cortisol levels in the child (Fisher & Stoolmiller, 2008), indicating the potential for caregiver stress to impact a child's stress regulatory system. MTFC-P might affect children's HPA axis regulation by supporting the caregivers and, thus, decreasing caregiver stress levels. On the whole, the evidence suggests that participation in MTFC-P predicts positive change in a child's stress regulatory system, partially through improvements in parents' stress levels.

In sum, evaluations of MTFC-P have incorporated a variety of outcome measures (behavioral and neurobiological) to demonstrate the intervention's capacity to

facilitate positive changes and mitigate the negative effects associated with remaining in foster care. These results support the importance and the promise of early intervention with young maltreated children. MTFC-P, by supporting effective parenting and consistency for the child, can be considered an evidence-based family intervention that alleviates the risks associated with foster children who have histories of maltreatment.

MTFC-P Case Study

The following case study illustrates how MTFC-P can be used as an effective treatment for preschool-aged foster children. "*Gabriel*" was a 4-year-old male with a history of significant physical abuse and neglect when he was referred to the program. Gabriel had been raised by a single mother who had two other younger children, each of whom had a different father. Gabriel's mother had a history of drug and alcohol abuse as well as involvement in relationships that included domestic violence. She had never graduated from high school, experienced unemployment and housing instability, and was dependent on public assistance for financial support. When Gabriel entered foster care, Gabriel's mother was well known to the child welfare system caseworkers because of her maltreatment of the children and involvement in domestic violence.

Prior to being referred to the MTFC-P program, Gabriel had been in several foster homes. However, his aggressive and defiant behavior made him difficult to manage, and the foster parents in these homes had requested Gabriel's removal due to this behavior. Although only a preschooler, Gabriel was quite large for his age and very strong. As such, when he became aggressive, he could destroy a considerable amount of property and pose a risk of physical harm to his caregivers. Gabriel's caseworker believed that if she were unable to stabilize him in a treatment foster care home, the only alternative would be residential treatment. This profile is not uncommon for children referred to the MTFC-P program. The standardized mental health assessment conducted at the time revealed that Gabriel met criteria for conduct disorder (unusual for such a young child) as well as for attention deficit and hyperactivity disorder. It was not clear whether some of this aggression was a manifestation of post-traumatic stress disorder, which is difficult to diagnose at this age, so PTSD was listed as a rule-out diagnosis. The diagnostic information obtained from this assessment was employed to develop Gabriel's initial treatment plan.

Gabriel was placed in a foster home with new foster parents. These foster parents had raised their biological children, but these children were now grown and no longer living in the home. Although MTFC-P placements are sometimes made in foster families in which there are younger children, such a placement for Gabriel was deemed risky because of the potential harm that could be caused by his aggressive behavior.

Gabriel's initial transition to the MTFC-P foster home did not go smoothly. Although foster children often show relatively limited negative behavior when first

placed in a new home (this is sometimes referred to by clinical staff who work with the children as a "honeymoon period"), Gabriel began to exhibit problem behaviors almost immediately. He was noncompliant with his foster parents' requests and was often quite defiant in his tone. When pressed to complete a task such as clearing his plate or cleaning his room, he escalated quickly from defiance to violence. This violence included destruction of property (plates and other ceramic objects, wooden furniture, walls and doors) and physical aggression towards the foster parents.

During this initial adjustment period to the foster home, Gabriel's foster parents required considerable support from program staff members. Gabriel's foster parents were instructed in the appropriate use of consistent and nonaggressive discipline strategies, including timeout and privilege removal. They were also given a positive reinforcement program to implement. Because of Gabriel's high rate of negative behavior, the program staff felt it was necessary for the parents to reinforce Gabriel's positive behavior frequently and immediately.

Although the foster parents were observed to implement these behavioral strategies quite effectively during home visits and reported employing them frequently, Gabriel's behavior problems continued to escalate. The on-call staff availability and the staff role stratification proved instrumental in getting past these initial difficulties. The program supervisor served in an authority role and made frequent visits to the house to enforce limits. This made it possible for the foster parents to assume a more supportive and less power-assertive role. The foster parent consultant provided emotional support to the foster parents during this time, which was clearly needed. The foster parents also received considerable support via the daily PDR calls. In addition, the foster parents attended weekly support group meetings; through these meetings, they were able to hear from other, more experienced foster parents about the challenges involved in children transitioning to a new home. Although this did not take away from the difficulties of caring for Gabriel, it normalized these difficulties.

After approximately 6 weeks of this pattern of aggressive and noncompliant behavior, Gabriel began to respond more positively to his foster parents. He gradually became more compliant and was slower to escalate into aggression when frustrated or upset. However, whenever the foster parents became less structured in response to these improvements, Gabriel had significant setbacks, becoming destructive towards property and aggressive towards the foster parents. As such, it was necessary for the foster parents to continue to implement the MTFC-P behavior program with a high degree of fidelity. Gabriel was a regular participant in the program playgroup, and this increased his use of prosocial behavior with peers.

After several months of treatment in this foster home, Gabriel's behavior was stable enough and his aggression had decreased to the degree that his caseworker made the decision to place his two younger siblings (both brothers) with him. This change produced yet another episode of extremely challenging behavior on Gabriel's part. By this time, however, the foster parents continued to consistently use the behavior program with Gabriel and his siblings, believing that this would ultimately produce the most positive changes. Gabriel's behavior again stabilized.

After Gabriel had been in care for approximately 8 months, proceedings to terminate his biological mother's parental rights were initiated as a result of her lack of compliance with the conditions set forth by her caseworker and her ongoing drug use. The court determined that terminating parental rights for Gabriel and his siblings was the appropriate decision, and Gabriel was made eligible for adoption.

The foster parents who had been caring for Gabriel and his siblings considered becoming adoptive parents but decided that they were too old to take on this role. However, their friends from church who were much younger and knew the children were interested in adopting them. This proved to be an excellent situation that allowed Gabriel and his siblings to remain in contact with the foster parents and to stay in their community of origin. Although Gabriel and his brothers continued to require a high level of support and structure, MTFC-P was terminated once the children were stable in the adoptive home.

Concluding Remarks

This chapter provides an overview of the MTFC-P program, describes its origins at the Oregon Social Learning Center, provides details about the program's components, elaborates on the evidence base for MTFC-P, and provides a case study demonstrating how MTFC-P helped one child with a significant history of maltreatment move in a more positive direction. Programs like MTFC-P have the potential to transform the lives of many troubled children. Nevertheless, financial and programmatic barriers continue to exist regarding early intervention programs for young foster children. More work is needed for programs like MTFC-P to become standard practice in community settings. This work will require collaborative efforts on the part of policymakers, child welfare leaders and caseworkers, researchers, and community members. Only through such collaborative efforts is progress likely.

References

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Lawrence Erlbaum.

Bank, L., Forgatch, M. S., Patterson, G. R., & Fetrow, R. A. (1993). Parenting practices of single mothers: Mediators of negative contextual factors. *Journal of Marriage and Family, 55*, 371–384.

Bank, L., Marlowe, J. H., Reid, J. B., Patterson, G. R., & Weinrott, M. R. (1991). A comparative evaluation of parent training for families of chronic delinquents. *Journal of Abnormal Child Psychology, 19*, 15–33.

Blair, C. (2002). School readiness: Integrating cognition and emotion in a neurobiological conceptualization of children's functioning at school entry. *American Psychologist, 57*(2), 111–127.

Briggs-Gowan, M. J., Horwitz, S. M., Schwab-Stone, M. E., Leventhal, J. M., & Leaf, P. J. (2000). Mental health in pediatric settings: Distribution of disorders and factors related to service use. *Journal of American Academy of Child and Adolescent Psychiatry, 39*, 841–849.

Bruce, J., Fisher, P. A., Pears, K. C., & Levine, S. (2009). Morning cortisol levels in preschool-aged foster children: Differential effects of maltreatment type. *Developmental Psychobiology, 51*, 14–23.

Bruce, J., McDermott, J. M., Fisher, P. A., & Fox, N. A. (2009). Using behavioral and electrophysiological measures to assess the effects of a preventive intervention: A preliminary study with preschool-aged foster children. *Prevention Science, 10*, 129–140.

Burns, B. J., Phillips, S. D., Wagner, H. R., Barth, R. P., Kolko, D. J., Campbell, Y., et al. (2004). Mental health need and access to mental health services by youth involved with child welfare: A national survey. *Journal of the American Academy of Children and Adolescent Psychiatry, 43*, 960–970.

Carlson, V., Cicchetti, D., Barnett, D., & Braunwald, K. (1989). Disorganized/disoriented attachment relationships in maltreated infants. *Developmental Psychology, 25*, 525–531.

Chamberlain, P. (2003). The Oregon Multidimensional Treatment Foster Care model: Features, outcomes, and progress in dissemination. *Cognitive and Behavioral Practice, 10*, 303–312.

Chamberlain, P., Leve, L. D., & DeGarmo, D. S. (2007). Multidimensional Treatment Foster Care for girls in the juvenile justice system: 2-year follow-up of a randomized clinical trial. *Journal of Consulting and Clinical Psychology, 75*, 187–193.

Chamberlain, P., & Reid, J. B. (1987). Parent observation and report of child symptoms. *Behavioral Assessment, 9*, 97–109.

Chamberlain, P., & Reid, J. B. (1998). Comparison of two community alternatives to incarceration for chronic juvenile offenders. *Journal of Consulting and Clinical Psychology, 6*, 624–633.

Conger, R. D., Conger, K. J., Elder, G. H., Jr., Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development, 63*, 526–541.

Conger, R. D., Patterson, G. R., & Ge, X. (1995). It takes two to replicate: A mediational model for the impact of parents' stress on adolescent adjustment. *Child Development, 66*, 80–97.

DeGarmo, D. S., Forgatch, M. S., & Martinez, C. R., Jr. (1999). Parenting of divorced mothers as a link between social status and boys' academic outcomes: Unpacking the effects of SES. *Child Development, 70*, 1231–1245.

Dishion, T. J., Patterson, G. R., & Kavanagh, K. (1992). An experimental test of the coercion model: Linking theory, measurement, and intervention. In J. McCord & R. Tremblay (Eds.), *The interaction of theory and practice: Experimental studies of intervention* (pp. 253–282). New York: Guilford.

Eddy, J. M., & Chamberlain, P. (2000). Family management and deviant peer association as mediators of the impact of treatment condition on youth antisocial behavior. *Journal of Consulting and Clinical Psychology, 68*, 857–863.

Eddy, J. M., Whaley, R. B., & Chamberlain, P. (2004). The prevention of violent behavior by chronic and serious male juvenile offenders: A 2-year follow-up of a randomized clinical trial. *Journal of Emotional and Behavioral Disorders, 12*, 2–8.

Fisher, P. A., Burraston, B., & Pears, K. C. (2005). The Early Intervention Foster Care Program: Permanent placement outcomes from a randomized trial. *Child Maltreatment, 10*, 61–71.

Fisher, P. A., Ellis, B. H., & Chamberlain, P. (1999). Early intervention foster care: A model for preventing risk in young children who have been maltreated. *Children's Services: Social Policy, Research, and Practice, 2*(3), 159–182.

Fisher, P. A., & Gunnar, M. R. (2010). Early life stress as a risk factor for disease in adulthood. In R. A. Lanius, E. Vermetten, & C. Pain (Eds.), *The impact of early life trauma on health and disease* (pp. 133–141). Cambridge, UK: Cambridge University Press.

Fisher, P. A., Gunnar, M. R., Chamberlain, P., & Reid, J. B. (2000). Preventive intervention for maltreated preschool children: Impact on children's behavior, neuroendocrine activity, and foster parent functioning. *Journal of the American Academy of Child and Adolescent Psychiatry, 39*, 1356–1364.

Fisher, P. A., Gunnar, M., Dozier, M., Bruce, J., & Pears, K. C. (2006). Effects of a therapeutic intervention for foster children on behavior problems, caregiver attachment, and stress regulatory neural systems. *Annals of the New York Academy of Sciences, 1094*, 215–225.

Fisher, P. A., & Kim, H. K. (2007). Intervention effects on foster preschoolers' attachment-related behaviors from a randomized trial. *Prevention Science, 8*, 161–170.

Fisher, P. A., Kim, H. K., & Pears, K. C. (2009). Effects of Multidimensional Treatment Foster Care for Preschoolers (MTFC-P) on reducing permanent placement failures among children with placement instability. *Child and Youth Services Review, 31*, 541–546.

Fisher, P. A., & Stoolmiller, M. (2008). Intervention effects on foster parent stress: Associations with child cortisol levels. *Development and Psychopathology, 20*, 1003–1021.

Fisher, P. A., Stoolmiller, M., Gunnar, M. R., & Burraston, B. (2007). Effects of a therapeutic intervention for foster preschoolers on diurnal cortisol activity. *Psychoneuroendocrinology, 32*, 892–905.

Fisher, P. A., Van Ryzin, M. J., & Gunnar, M. R. (2011). Mitigating HPA axis dysregulation associated with placement changes in foster care. *Psychoneuroendocrinology, 36*, 531–539.

Forgatch, M. S., & Patterson, G. R. (2010). The Oregon Model of Parent Management Training (PMTO): An intervention for antisocial behavior in children and adolescents. In J. R. Weisz & A. E. Kazdin (Eds.), *Evidence based psychotherapies for children and adolescents* (2nd ed., pp. 159–178). New York: Guilford.

Gartstein, M. A., & Fagot, B. I. (2003). Parental depression, parenting and family adjustment, and child effortful control: Explaining externalizing behaviors for preschool children. *Applied Developmental Psychology, 24*, 143–177.

Halme, N., Tarkka, M.-T., Nummi, T., & Astedt-Kurki, P. (2006). The effect of parenting stress on fathers' availability and engagement. *Child Care in Practice, 12*(1), 13–26.

Klee, L., Kronstadt, D., & Zlotnick, C. (1997). Foster care's youngest: A preliminary report. *American Journal of Orthopsychiatry, 67*, 290–299.

Landsverk, J., Garland, A. F., & Leslie, L. K. (2002). Mental health services for children reported to child protective services. In J. E. B. Meyers, L. Berliner, J. N. Briere, C. T. Hendrix, T. A. Reid, & C. A. Jenny (Eds.), *APSAC handbook on child maltreatment* (2nd ed., pp. 487–507). Thousand Oaks, CA: Sage.

Larzelere, R. E., & Patterson, G. R. (1990). Parental management: Mediators of the effect of socioeconomic status on early delinquency. *Criminology, 28*, 301–323.

Leve, L. D., Fisher, P. A., & Chamberlain, P. (2009). Multidimensional Treatment Foster Care as a preventive intervention to promote resiliency among youth in the child welfare system. *Journal of Personality, 77*, 1869–1902.

Leve, L. D., Kim, H. K., & Pears, K. C. (2005). Childhood temperament and family environment as predictors of internalizing and externalizing trajectories from ages 5 to 17. *Journal of Abnormal Child Psychology, 33*, 505–520.

Loeber, R., & Dishion, T. J. (1983). Early predictors of male delinquency: A review. *Psychological Bulletin, 94*, 68–99.

Maughan, A., & Cicchetti, D. (2002). Impact of child maltreatment and interadult violence on children's emotion regulation abilities and socioemotional adjustment. *Child Development, 73*(5), 1525–1542.

Newton, R. R., Litrownik, A. J., & Landsverk, J. A. (2000). Children and youth in foster care: Disentangling the relationship between problem behaviors and number of placements. *Child Abuse & Neglect, 24*(10), 1363–1374.

Ogden, T., & Hagen, K. A. (2008). Treatment effectiveness of parent management training in Norway: A randomized controlled trial of children with conduct problems. *Journal of Consulting and Clinical Psychology, 76*, 607–621.

Patterson, G. R. (1982). *A social learning approach: 3. Coercive family process*. Eugene, OR: Castalia.

Patterson, G. R. (2002). The early developmental of coercive family process. In J. B. Reid, G. R. Patterson, & J. Snyder (Eds.), *Antisocial behavior in children and adolescents: Developmental theories and models for intervention* (pp. 25–44). Washington, DC: American Psychological Association.

Patterson, G. R., Chamberlain, P., & Reid, J. B. (1982). A comparative evaluation of parent training procedures. *Behavior Therapy, 13*, 638–650.

Patterson, G. R., Debaryshe, B., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist, 44*, 329–335.

Patterson, G. R., Dishion, T. J., & Bank, L. (1984). Family interaction: A process model of deviancy training. *Aggressive Behavior, 10*, 253–267.

Patterson, G. R., & Fagot, B. I. (1967). Selective responsiveness to social reinforcers and deviant behavior in children. *The Psychological Record, 17*, 369–378.

Patterson, G. R., Forgatch, M. S., & DeGarmo, D. S. (2010). Cascading effects following intervention. *Development and Psychopathology, 22*, 949–970.

Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). *A social learning approach. IV. Antisocial boys*. Eugene, OR: Castalia.

Pears, K. C., & Fisher, P. A. (2005). Developmental, cognitive, and neuropsychological functioning in preschool-aged foster children: Associations with prior maltreatment and placement history. *Journal of Developmental and Behavioral Pediatrics, 26*, 112–122.

Pears, K. C., Fisher, P. A., & Bronz, K. D. (2007). An intervention to promote social emotional school readiness in foster children: Preliminary outcomes from a pilot study. *School Psychology Review, 36*, 665–673.

Pears, K. C., Fisher, P. A., Bruce, J., Kim, H. K., & Yoerger, K. (2010). Early elementary school adjustment of maltreated children in foster care: The roles of inhibitory control and caregiver involvement. *Child Development, 81*, 1550–1564.

Senechal, M., & LeFevre, J.-A. (2002). Parental involvement in the development of children's reading skill: A five-year longitudinal study. *Child Development, 73*(2), 445–460.

Shonkoff, J. P. (2010). Protecting brains, not simply stimulating minds. *Science, 333*, 982–983.

Stovall-McClough, K. C., & Dozier, M. (2000). The development of attachment in new relationships: Single subject analyses for 10 foster infants. *Development and Psychopathology, 12*, 133–156.

Walter, H., & Gilmore, S. K. (1973). Placebo versus social learning effects in parent training procedures designed to alter the behaviors of aggressive boys. *Behavior Therapy, 4*, 361–371.

Wells, K., & Guo, S. (1999). Reunification and reentry of foster children. *Children and Youth Services Review, 21*, 273–294.

Wiltz, N. A., Jr., & Patterson, G. R. (1974). An evaluation of parent training procedures designed to alter inappropriate aggressive behavior of boys. *Behavior Therapy, 5*, 215–221.

Zima, B. T., Bussing, R., Freeman, S., Yang, X., Belin, T. R., & Forness, S. R. (2000). Behavior problems, academic skill delays and school failure among school-aged children in foster care: Their relationship to placement characteristics. *Journal of Child and Family Studies, 9*(1), 87–103.