Multidimensional Treatment Foster Care: An Alternative to Residential Treatment for High Risk Children and Adolescents*

Tratamiento Multidimensional de Acogimiento Familiar: Una Alternativa al Tratamiento Residencial para Niños, Niñas y Adolescentes en Alto-Riesgo

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Abstract. This paper describes the Multidimensional Treatment Foster Care program (MTFC), an evidence based approach for providing psychotherapeutic treatment for very troubled children and adolescents that is an alternative to residential care. Versions of the MTFC program have been developed and validated for young children with a history of maltreatment as well as for older children and adolescents who are involved with the youth justice system. In the paper we describe the development of the MTFC program and its foundations in the social learning model that originated at the Oregon Social Learning Center in the 1960's and 70's. We present information about program elements. We then review the research that has been conducted on MTFC.
Keywords: foster care, multidimensional treatment foster care, problem behavior, serious juvenile-offenders.

Resumen. Este programa describe el programa "Tratamiento Multidimensional de Acogimiento Familiar" (MTFC), una práctica basada en la evidencia que proporciona tratamiento a niños, niñas y adolescentes muy problemáticos y que constituye una alternativa al acogimiento residencial. Se han desarrollado y validado diferentes versiones del programa MTFC para niños y niñas con historia de maltrato infantil así como para niños y niñas más mayores y adolescentes involucrados en el sistema de justicia juvenil. En el artículo se describe el desarrollo del programa MTFC y sus bases teóricas, que se inspiran en el modelo de aprendizaje social que se originó en el Oregon Social Learning Center en las décadas de los años 1960 y 1970. Se presenta información de los principales elementos del programa y se revisa la investigación más importante que se ha llevado a cabo con el MTFC.
Palabras clave: acogimiento familiar, jóvenes infractores, multidimensional treatment foster care, problemas de conducta, tratamiento.

When children exhibit problem behaviors such as aggression, defiance, difficulties in social relationships with peers, conflict with parents, or acting out at school, they are often referred for treatment to psychotherapists. There has long been recognition that, since children exist in an environment of family relationships, it may be effective not only to treat children themselves for these sorts of problems, but also to work with their families (Forehand, King, Peed, & Yoder, 1975; Snyder, 1977; Patterson, 1982; Patterson, 2002). As such, many programs, including a number of those highlighted in this special issue, have been developed to treat children from a family-based perspective. Many of these programs have their roots in the social learning model that was promulgated by Gerald Patterson and colleagues at the Oregon Social Learning Center beginning in the 1960s (Patterson & Fagot, 1967; Patterson, 1982; Patterson, Debaryshe, & Ramsey, 1989). This approach, which developed out of extensive longitudinal research on families, focuses on key elements of parenting found to be highly predictive of child and adolescent problem behavior (Loeber & Dishion, 1983; Patterson, Dishion, & Bank, 1984). In particular, the use of harsh and inconsistent discipline, lack of positive reinforcement for prosocial behaviors, and failure to adequately monitor and supervise a child, both in the home and in the larger community, are key targets of these intervention approaches (Patterson & Forgatch, 1987; Forgatch & Patterson, 1989). Numerous studies to evaluate these interventions have found positive impact on a variety of outcomes including an overall reduction in aversive behaviors and improvement in key parenting practices, (e.g., Patterson, 1974; Wiltz & Patterson, 1974; Webster-Stratton, 1985; Patterson, Chamberlain, & Reid,

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1982; Patterson & Fleischman, 1979; Bank, Patterson, & Reid, 1987; Patterson, 2005).

In the United States and elsewhere over the past 2 to 3 decades, there has been growing recognition that interventions to address child problem behaviors should be evidence-based (Alvarez & Ollendick, 2003; Ollendick & King, 2004). In order to become evidence-based, programs must be evaluated using sound empirical methodology (Eyberg, Nelson, & Boggs, 2008). Among the most scientifically rigorous approaches to establishing an evidence base is the use of randomized clinical trials (Chambless & Hollon, 1998). Within this context, individuals are randomly assigned to either receive the intervention or some alternative treatment (often services as usual within the community or an intervention that provides similar amounts of dosage without the content of the intervention under evaluation). Outcomes of interest are examined both prior to and after the intervention, and in many cases for periods of time following the completion of the intervention. To the extent that children receiving the intervention exhibit more positive outcomes than those not receiving intervention, an evidence base begins to be established for that approach (Eyberg et al., 2008).

Many interventions follow a process of "efficacy trials to effectiveness trials" in the establishment of an evidence base (Hoagwood, Hibbs, Brent, & Jensen, 1995). Put simply efficacy trials are those conducted within specialized settings such as universities or private mental health clinics, with the maximum amount of support and resources as well as highly trained staff. These trials represent a "best case scenario" in the sense that they are designed to determine whether intervention delivered under optimal conditions can impact outcomes. Following the successful completion of an efficacy trial researchers then implement and evaluate the intervention within community settings. These effectiveness studies, which tend to occur under "real world" conditions, test whether promising interventions remain effective once transferred into the context in which they are most likely to be delivered (Wells, 1999). Alternatively, some researchers have argued that it may be useful to circumvent the initial efficacy trial to begin with effectiveness evaluations because there is little utility in showing that interventions only work under the best case scenario conditions, and there is considerable cost and time involved in undertaking either efficacy or effectiveness trials (Hoagwood, Jensen, Petti, & Burns, 1996; Kazdin, 1997; Nelson & Steele, 2006).

In the area of treatment and prevention of child problem behavior involving family-based interventions, many evidence-based interventions exist (for review, see Eyberg et al., 2008). However, in cases of severe problem behaviors in children and adolescents, it becomes increasingly challenging to consider intervening with the child in the context of their family. Children with extremely aggressive or self-injurious behaviors, those whose behavior includes criminality in such ways that make it difficult for the child to be safe in community settings, and children whose family circumstances preclude the ability of caregiving adults to provide the necessary parenting support (e.g., abusive parents, parents in the criminal justice system, and parents with drug and alcohol problems) have historically been referred to residential treatment and other out-of-home placements (Chamberlain & Reid, 1998).

The use of residential and other forms of congregate care is logical for especially high-risk children, for several reasons (Fisher & Chamberlain, 2000). First, to the extent that the children pose a safety concern, placement in settings that limit their access to community individuals may seem warranted. Second, since families in which these children are living may have limited ability to provide the level of care needed, residential treatment may seem like the only option. However, extensive research has shown that housing extremely high-risk children with their peers is a questionable intervention strategy (Elliot, Huizinga, & Ageton, 1985; Dishion, McCord, & Poulin, 1999). Research on so-called "iatrogenic effects" shows that a process known as peer contagion may operate in congregate care settings, in which children with antisocial behavior problems essentially reinforce each other's negative behavior (Dishion, Spracklen, Andrews, & Patterson, 1996; Dishion, Eddy, Haas, Li, & Spracklen, 1997). In such contexts it may be very difficult for staff who work with these children to provide sufficiently reinforcing interactions for effective intervention (Buehler, Patterson, & Furniss, 1966). Notably, research by Chamberlain & Reid (1998) found that children in group care situations reported much lower levels of supervision and consistent consequences for behavior than did the adult staff charged with caring for these children. Inasmuch as consequences and supervision are critical components of effective intervention for highly troubled children, low levels of these therapeutic processes in group care is highly problematic.

Not only is group care questionable in its effectiveness, it is also quite costly. In order to run a group care facility it is necessary to have staff working with the children around-the-clock. Usually multiple staff who work directly with the children are required as well as a constellation of other professionals that may include psychologists, psychiatrists, program managers, and others. From an economic perspective the limited benefits of this approach combined with the high costs make it a questionable undertaking (Aos, Miller, & Drake, 2006). Nevertheless, in the United States, Europe, and elsewhere residential treatment for highly troubled youths is still an extremely prevalent approach to treatment. Clearly alternative strategies that can deliver more positive outcomes for lower costs are warranted.

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Multidimensional Treatment Foster Care (MTFC; Chamberlain, 2003) is an approach for working with children and families who are in need of a high level of support due to high levels of abuse and neglect, severe mental health and behavioral problems, and problems with juvenile delinquency. MTFC is considered to be an evidence-based program based on randomized clinical trial studies that have been employed to evaluate the program (Eyberg et al., 2008). Developmentally specific versions of the MTFC program exist for preschoolers (ages 3-5; MTFC-P; Fisher, Burraston, & Pears, 2005), school aged children (6-12; Chamberlain & Smith, 2003), and adolescents (12-18; MTFC-A; Chamberlain & Smith, 2003). The program is intended to be used for children in foster care and youth justice programs as an alterative to more restrictive placements, and as an approach that allows children and youth to receive services in the naturalistic context of a family setting while remaining in the communities in which they live. Although MTFC was originally developed in Oregon, USA, the program has been successfully implemented at over 50 sites in the United States as well as at over 15 sites in England, and 20 sites in Norway, Denmark, Sweden, the Netherlands, and elsewhere in Europe.

MTFC program philosophy and goals. The philosophy behind the MTFC program is that long-term outcomes for troubled youth may be most successfully promoted when treatment occurs in the context of family and community. Rather than remove the child from these naturalistic settings and place him or her in residential care, MTFC 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 or her in a typical family situation, and while the child is in foster care those who will be providing the long-term care for him or her (i.e., the biological family, relatives, or others with whom the child will live after completing treatment) are instructed in the same sorts of parenting strategies that the child is being exposed to in the foster home. By maintaining consistency in the discipline strategies as well as in the support for positive behavior across these contexts, the program's goals are to make it possible for the child to function in family and school settings over the long term. Specific targets of MTFC treatment are shown in Table 1.

MTFC Program Components. MTFC is a multicomponent program that includes services to children, foster parents, and to long-term placement resources including birth families and or adoptive families. A key underlying principle of MTFC is that services should be delivered in a proactive manner. That is, rather than waiting until children's problems reach a point where their placement may be compromised, program staff work collaboratively with foster parents to prevent problems from escalating. In this section, we describe the various program components

Recruitment of foster parents. MTFC foster parents are recruited in a variety of ways. This includes via advertisements in local newspapers, through postings in public places such as community centers and schools, and via word-of-mouth. One of the most effective strategies employed for recruiting MTFC foster parents has been through individuals who are currently serving in this role for the program. Current MTFC foster parents know what the program requires, are familiar with the types of support provided to foster parents, and often are strong advocates for the program in ways that individuals unfamiliar with the program are not able to be.

Recruitment of foster parents begins with a screening telephone call by the foster parent recruiter. This is then followed by a home visit. During a visit the details of the MTFC program are presented to prospective foster parents. A home visit also allows the foster parent recruiter to determine if the home environment would be appropriate for caring for a high needs child of the type that are referred to MTFC.

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

Table 1. Targets of MTFC treatment.

- Reinforce normative and prosocial behaviors.
- Provide the youth with close supervision.
- Closely monitor peer associations.
- Specify clear and consistent limits and follow through on rule violations with nonviolent consequences.
- Encourage youths to develop positive work habits and academic skills.
- Support family members to increase the effectiveness of their parenting skills.
- Decrease conflict between family members.
- Teach use of new skills for forming relationships with positive peers and for bonding with adult mentors and role models.

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Foster parent training. The training of MTFC foster parents consists of 20 hours of instruction over the span of one weekend and a following weekday evening. During the training, foster parents are introduced to the specific behavioral management models that are employed with the children in the age group that they are planning to have in their home. Details of the program staffing structure and 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. This includes the use of concrete reinforcement strategies. Some prospective foster parents are extremely resistant to the idea of rewarding children for positive behavior. In some instances it is possible to work through some of this concern by helping foster parents understand that such measures are necessary in order to reverse the negative patterns of interaction to which the child has grown accustomed. However, for individuals simply unwilling to provide a high level of positive reinforcement, ongoing participation as foster parents is discouraged. 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 child is placed in the MTFC 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 in consultation with the foster parents. From the first day of placement, foster parents have daily contact with the program. This comes in the form of a telephone call to collect information about problem behaviors that have occurred in the past 24 hours. The telephone call uses a standardized checklist called Parent Daily Report (PDR; Chamberlain & Reid, 1987). Parents are asked if each behavior on the PDR checklist occurred or did not occur, and which of the behaviors that occurred were stressful for them to deal with. The information collected via this telephone call, which takes approximately 5 to 10 min., is critical for ongoing case planning. It allows program staff and foster parents to identify specific problems that are most commonly occurring and also which of those behaviors are most stressful. This provides clear targets for the child's behavior management program. In addition, because problem behaviors can be summed for each day (i.e., a daily "total problem behavior" score), the PDR provides a method for assessing treatment progress over time. Finally, to the extent that foster parents reported a great deal of stress or distress on a particular day, program staff can follow up with more intensive contact in order to support the family.

In addition to daily telephone contact for PDR, all foster parents participate in a weekly support group meeting. At this meeting, program staff members review the progress of each child using weekly PDR data. Foster parents have a chance to present particular situations that were either particularly challenging or positive for them. Other foster parents provide peer support and assistance in problem solving around problem behaviors. The foster parent support group meeting lasts for approximately 2 hours, and during this time child care is provided. Often snacks or a light meal are also provided as a way of indicating additional support from the program to the foster parents.

Program staff also provide behavioral support to the child's school. This may include direct consultation with teachers as well as attendance at school planning meetings. Program staff help to put a positive behavior support plan in place, which may include the child carrying a "school card" to each class in order to have the teacher provide information about the child's behavior and completion of assignments to the foster parents and program. Monitoring and supporting performance at school is an important part of the child's overall behavior management program (see below).

Program staff also provide support for emergency or crisis situations at all times. Although in some locations in which MTFC has been implemented, accommodations have needed to be made in order to fit within a country's labor laws, the idea that someone from the program is always available to help with difficult situations is a critical component contributing to success. Moreover, by being proactive about crisis management, the program is able to prevent foster parents from feeling overwhelmed and alone when dealing with difficult circumstances, and this may contribute to the low disruption rates that have been observed among MTFC foster homes.

Services to children. MTFC foster children receive a comprehensive program of services. All MTFC children are placed on a behavior management program that is developmentally appropriate for their age. For older children and adolescents a "level system" is employed, within which supervision and privileges vary according to the specific level that the child is on. At each level children earn points throughout the day for participation in home and school activities including chores, attending class, and completion of homework. Points are lost for violations of program rules. Children spend approximately 3 weeks on Level I when they enter a new foster home. They receive points for such basic expectations as getting out of bed on time and having a positive attitude. Points earned on one day are traded for privileges on the following day. Once the child has accrued enough points, they are able to move to Level II. On this level there are expanded privileges, they are earned on a weekly rather than daily basis, and there are more opportunities for independence. If the child has a particularly difficult day on Level II, however, they can be returned to Level I, at which point they will have fewer privileges and independence. Once their behavior improves, they are then returned to Level II. A third

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level (Level III) exists for children who have been in the program for a long time and demonstrated an ability to function with a high level of independence. At Level III, there are expanded opportunities to earn privileges, and there is an expectation that children will participate in typical community activities such as sports and after school programs.

Behavior management programs for younger children and children who have significant developmental delays are simpler than the level system. Often they involve more immediate forms of reinforcement such as stickers or the use of star charts. Program expectations are that foster parents will maintain some sort of concrete reinforcement program with children in their care for the duration of the time the children are in the program.

Across all age groups who receive MTFC services, behavior programs are continually adjusted over time in order to meet the individualized needs of the child. Foster parents provide input to the program staff via the above-mentioned individual and group meetings to identify specific problems that require attention, as well as to provide information about methods of reinforcing positive behavior that are especially effective. The expectation is that focal issues will change over the course of time that the child is in the program. The high degree of contact between program staff and foster parents allows the child's individual needs to be addressed on an ongoing basis.

In addition to the behavior management program, support to children varies as a function of the age of the child. For older children and adolescents, individual services via a "skills coach" are provided to teach problem solving and other prosocial skills. For younger children, a therapeutic play group is provided in order to help the children learn skills they will need to be successful in school but from both a social perspective and an academic perspective.

Services to biological parents and other long-term placement resources. During the time that the child is in MTFC, the program collaborates with local authorities to identify who is likely to be a long-term family for the child. In many instances this is the biological family from which the child came prior to being placed in foster care. In other instances, depending on the circumstances of the child and the country in which the program is being implemented, long-term care may be provided by a close relative of the child such as a grandparent, aunt and uncle, or by a non-relative adoptive family. Whoever the long-term placement family is, program staff members work with those individuals to help teach them the same parenting and behavior management skills that are being employed in the foster home. As noted above, for older children and adolescents this includes the use of a level system and for younger children involves the use of a concrete system for reinforcing prosocial behavior. Families also learn the use of effective strategies to set limits around negative behavior without being overly harsh and coercive. This includes the use of timeout for younger children, and chores combined with removal of privileges for older children. Program staff members support the long-term placement family during the transition of the child from the foster home into the permanent home. (It is noteworthy that in some instances children stay with the MTFC foster family indefinitely rather than moving to another family. This may be especially important with young children for the development of healthy attachment relationships). Services to the long-term family continue until the child is stable in the home, at which point services are discontinued.

Program staffing structure. One of the unique aspects of the MTFC program is the use of a team approach to providing services. Each treatment team contains a group of staff with clearly defined roles. These roles are stratified and as such contain very little overlap. Treatment teams usually work with approximately 12 to 15 children at one time. Roles of the team members include the following.

The team leader is the *program supervisor*. This individual 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 may be receiving. The program supervisor is also the primary authority figure for the child and the foster family. To the extent that limits need to be set or rules need to be enforced by the program, it falls to the program supervisor to do this. The program supervisor also runs foster parent support group meeting.

The *foster parent consultant* provides additional support to the foster family. This individual is often a former foster parent and therefore is able to take the perspective of the foster family. The foster parent consultant delivers services via a home visit and telephone, and also participates as a coleader in the weekly foster parent support group meeting. This individual is usually a masters or doctoral level professional.

The child receives support via individual sessions with the *behavior support specialist.* This individual is 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 in order to help the child learn more prosocial skills in their naturalistic environment.

A *family therapist* works with the biological or other long-term placement family in order to prepare them to receive the child back following placement in foster care. The specific strategies employed are described above. The strategies 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* is the individual who maintains daily contact between foster families and program.

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This individual is often a clerical level staff such as a secretary. It is essential that they are able to establish good rapport with foster families and take information accurately over the telephone. Moreover these individuals need to be able to identify when foster families are having a difficult time and alert program staff to this so that they may follow-up with the foster parent.

A *consulting psychiatrist* is employed in order to facilitate consistency in the child's medication management. Although not all children in the program receive psychiatric medications, in many countries where MTFC is implemented, enough children are on medications that it is helpful to have a single provider coordinating care in this area. Consulting psychiatrists work not only with the child in their foster family but also with program staff to ensure that they have a complete picture of the child's needs.

For programs that are running the preschool age version of MTFC, additional staff take the place of the behavior support specialist in order to run playgroup. These include a *playgroup lead teacher* and an *assistant teacher*. These are usually individuals with early childhood education experience or in university programs to train teachers.

Populations served by MTFC. MTFC was originally developed to serve the needs of adolescents in the youth justice system who had problems with juvenile delinquency (Chamberlain & Reid, 1998; Fisher & Chamberlain, 2000; Chamberlain, 2003). The intensive nature of the program is specifically designed to provide levels of support and supervision necessary to maintain such youth in community settings. Subsequently, the program was adapted downward developmentally to serve school-aged children and children in preschool age range who were on the cusp of beginning primary school (Fisher, Burraston, & Pears, 2005). The original MTFC program was designed to address the needs of boys in particular, however over time the program has been adapted for girls as well (Leve, Chamberlain, & Reid, 2005; Leve & Chamberlain, 2007; Chamberlain, Leve, & DeGarmo, 2007). As such, the MTFC program represents a comprehensive system of care for children aged 3 to 18 of both genders.

Most of the children served by MTFC programs have severe behavior problems and significant histories of trauma and maltreatment. They may have spent very little time and had very little experience with typical family environments. As such, they may require a considerable period of adjustment before they begin to behave in accordance with the expectations of the families with whom they are placed. This is one of the reasons that the program provides such extensive support to foster families and care for MTFC children. The stress on children and foster parent during this period of adjustment can be considerable, and it is unrealistic to expect that individuals will be successful on their own. Helping children and families see that they are not alone and that there exist effective strategies to help children adjust is a critical component of successful treatment. It allows children to remain in family and community settings as opposed to ending up in residential care.

MTFC evaluation research. MTFC has been evaluated for use with a variety of child and adolescent populations, including those specified above. In comparison to other treatment as usual conditions involving residential care, MTFC has been shown to affect important outcome variables, such as number of violent offenses (Eddy, Whaley, & Chamberlain, 2004) and post-treatment rates of institutionalization and incarceration (Chamberlain, 1990; Chamberlain, Leve, & DeGarmo, 2007). Importantly, a positive impact on specific targets of the program, including family management practices and deviant peer association, appear to be effectiveness factors driving MTFC treatment effects on antisocial behavior (Eddy & Chamberlain, 2000). More detailed descriptions of randomized clinical trials of MTFC for adolescents (MTFC-A) and MTFC for pre-schoolers (MTFC-P) appear below.

Results of MTFC-A evaluation research. Chamberlain and colleagues first evaluated the use of MTFC as an alternative to incarceration for seriously delinquent youth. Compared to youth who were placed in group care, those in MTFC remained in their 6 month placements longer and spent less time incarcerated two years post-treatment (Chamberlain, 1990). Similar results were seen with a group of youth randomly assigned to MTFC after release from a state psychiatric hospital (Chamberlain & Reid, 1991). A larger randomized trial with chronic juvenile offenders comparing MTFC to group care further demonstrated MTFC to be superior in affecting positive change in this difficult population in the form of fewer criminal referrals and fewer days spent in detention (Chamberlain & Reid, 1998). Youth in the MTFC group committed fewer violent offenses, received fewer criminal referrals (Eddy, Whaley, & Chamberlain, 2004) and had lower rates of substance abuse (Smith, Chamberlain, & Eddy, 2010) than those in group care at 2-year follow-up. As noted above, MTFC has also been adapted and evaluated for use with female juvenile offenders and shown to be efficacious in reducing the number of days spent in locked settings and increasing school attendance and homework completion (Leve, Chamberlain, & Reid, 2005; Leve & Chamberlain, 2007). Long-term improvements on important delinquency outcomes such as number of criminal referrals were also seen in the MTFC girls (Chamberlain, Leve, & DeGarmo, 2007)

Results of MTFC-P evaluation research. Fisher and colleagues (1999) adapted the MTFC program to meet the needs of a younger population (ages 3 to 5) in the U.S. foster care system. A variety of factors, including early disruption of attachment relationships, prenatal drug and alcohol exposure, abuse, and neglect, make

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this population a particularly high-risk group of children (Klee, Kronstadt, & Zlotnick, 1997; Fisher, Ellis, & Chamberlain, 1999; Fisher, Burraston, & Pears, 2005). MTFC-P was designed to address three main target areas for this population: behavior problems, emotion regulation, and developmental delays. In a comparison between MTFC-P and regular foster care, MTFC-P was shown to be effective in improving the behavioral adjustment of participating pre-schoolers, while behavioral problems in comparison groups of regular foster care pre-schoolers increased (Fisher, Gunnar, Chamberlain, & Reid, 2000). Improvements in attachment behaviors (Fisher & Kim, 2007) and placement stability have also been demonstrated in children participating in MTFC-P (Fisher, Kim, & Pears, 2009). Importantly, MTFC-P has shown the power of intervention to enact change in neurobiological systems negatively affected by early life stress. Fisher, Gunnar, Dozier, Bruce, and Pears (2006) as well as others (Fisher, Stoolmiller, Gunnar, & Burraston, 2007) have shown the capacity for MTFC-P to mitigate the dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis (as measured by the "stress hormone" cortisol) often associated with experiences of stress early in life. Additionally, intervention effects on electrophysiological measures of cognitive control have also been demonstrated, such that children receiving regular foster care services showed deficits in performance monitoring not shown in children receiving MTFC-P (Bruce, McDermott, Fisher, & Fox, 2009). Evaluation research of MTFC-P has thus incorporated a variety of outcome measures, both behavioral and neurophysiological, to demonstrate the efficacy of the intervention in improving outcomes for preschoolers in foster care.

Summary and conclusions. In this paper we have provided a description of the MTFC program and its origins in the social learning model developed at the Oregon Social Learning Center. We have described the program components and staffing structure. Finally, we have provided evidence from evaluation studies of the programs' effectiveness for children and adolescents. MTFC is being widely implemented throughout the United States and Europe and has many proponents. Given the high cost and limited effectiveness of residential care for children and adolescents with severe behavior problems and/or juvenile delinquency, MTFC is a positive alternative.

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