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Fostering Futures: A Preventive Intervention Program for School-age Children in Foster Care

WENDY NILSEN

University of Rochester School of Medicine and Dentistry, USA

ABSTRACT

Children in foster care have social and emotional problems at rates three to ten times higher than those found in the general population. During the elementary school years (i.e. 5–12 years), research indicates that disruptive behavior in children in care can negatively impact social, emotional and academic development, as well as placement stability. Evidenced-based interventions to improve children's behavior and reduce parenting stress are necessary. This pilot study augmented an existing evidenced-based intervention (i.e. the Incredible Years) developed for birth families for use with foster caregivers. Results from 18 families indicate that foster caregiver-reported conduct symptoms were significantly lower for children whose families participated in the treatment group. A similar trend was found for the overall externalizing behavior. No significant changes were identified in parenting attitudes and stress. Participants reported high levels of satisfaction and acceptability with the program and outcomes. These findings indicate that foster caregiver training should be examined in larger, randomized control trials.

KEYWORDS

disruptive behavior, foster care, intervention, parent training, school-age children

CHILDREN IN FOSTER CARE have social and emotional problems at rates three to ten times higher than those found in the general population (Garland, Landsverk, Hough, & Ellis-MacLeod, 1996; Stein, Evans, Mazumdar, & Rae-Grant, 1996; Stein, Rae-Grant, Ackland, & Avison, 1994), as well as significant developmental delays,

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physical problems, and substantial difficulties in academic functioning that far surpass those of other children in the community (Clausen, Landsverk, Ganger, Chadwick, & Litrownik, 1998; Garland et al., 1996; Stein et al., 1994; Zima, Bussing, Crecelius, Kaufman, & Belin, 1999). During adolescence and adulthood children in foster care are at increased risk for substance abuse (Kalland, Pesola, Merilainen, & Sinkkonn, 2001), depression (Heflinger, Simpkins, & Combs-Orme, 2000; Stein et al., 1996), anxiety (Clausen et al., 1998; Heflinger et al., 2000), delinquency (Caldwell, 1992; Runyan & Gould, 1988), school failure (Blome, 1997; Dumaret, 1988), incarceration (Miller, Cohen, & Wiersema, 1996), and suicide (Barth & Blackwell, 1998; Kalland et al., 2001).

   Foster care was originally envisaged only as a way to house children until the deficits in their biological homes could be remedied or a permanent placement could be obtained (Shealy, 1995). As Frank (1980) has noted, the system was designed to provide 'normal' homes for 'normal' children. Unfortunately, research indicates that children in foster care are not 'normal' in that they exhibit elevated rates of social and emotional problems (Barth & Blackwell, 1998; Blome, 1997; Caldwell, 1992; Kalland et al., 2001). In addition, this conceptualization also neglects the possible therapeutic benefits that foster caregivers[1] can provide (for review of this issue see Sinclair, Wilson, & Gibbs, 2003). Indeed, a thesis underlying much of the current clinical research in this area is that the time in foster care represents an underutilized window of therapeutic opportunity (Wilson, Sinclair, Taylor, Pithouse, & Sellick, 2004). The foster family potentially provides a healthy context for a child to learn new skills, modify the maladaptive aspects of his/her behavioral repertoire, and enhance the factors that promote resilience (Wyman, 2001), which can often be overlooked in interventions designed for family reconciliation or preservation. Although research indicates that children are safer in foster care than in their biological homes (Wilson et al., 2004), foster care as a whole shows little systemic evidence of a therapeutic benefit (Runyan & Gould, 1988). Accordingly, several efforts are underway to redress this situation with infants (Dozier, Higley, Albus, & Nutter, 2002), preschoolers (Fisher, Ellis, & Chamberlain, 1999; Fisher, Gunnar, Chamberlain, & Reid, 2000), and adolescents (Chamberlain, 1996). The current study adds to existing work by testing a pilot intervention to improve parenting and reduce disruptive behavior in elementary school-age children in foster care.

Psychosocial adjustment of children in foster care

That children in foster care would show a wide range of psychological difficulties is not surprising given the large number of risk and relatively few protective factors in their environments (Stein et al., 1996; Thorpe & Swart, 1992). Although not all foster children share these experiences, the risks for impairment are numerous and can include: High rates of abuse and neglect (Administration on Children, Youth and Family Services, 2001; Garland et al., 1996; Halfon, Medonca, & Berkowitz, 1995; Thorpe & Swart 1992), a disrupted and chaotic home life before entering care (Heap, 1991; Hulsey & White, 1989), physical changes attributed to abuse or neglect (e.g. physiological or neurological abnormalities; Al-Mateen, Hall, Brookman, Best, & Signh, 1999; Wallace & Belcher, 1997), exposure to chronic poverty (Hulsey & White, 1989; Sedlak & Broadhurst, 1996; Thorpe & Swart, 1992), parental psychopathology (Chernoff, Combs-Orme, Risley-Curtiss, & Heisler, 1994; Halfon et al., 1995; Hulsey & White, 1989; Thorpe & Swart, 1992), and prenatal drug or alcohol exposure (Halfon et al., 1995). Finally, the trauma of separation from biological parents as children enter foster care may be another risk factor for the development of psychosocial difficulties (Charles & Matheson, 1990; Katz, 1987). This density of risk exposure and consequent rates of poor academic, health, and

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vocational outcomes of children in foster care, have now caused this to be to be viewed within a public health context (Pilowsky, 1995).

Negative psychosocial outcomes for children in foster care extract a high cost not only in human suffering, but also in the price paid by society. A recent report puts the direct cost of child abuse and neglect at over US$24 billion per year, while the indirect price, which includes fees for special education, mental health services, juvenile delinquency, loss of productivity, and adult criminality, is conservatively estimated at US$70 billion dollars annually (Prevent Child Abuse America, 2001). Further support for the high price of children in foster care comes from California Medicaid records indicating that children and adolescents in foster care consume approximately one-half of the dollars spent on mental health, while constituting only 4% of the population (Halfon, Berkowitz, & Klee, 1993). This mental health service usage has been found to be primarily a response to emotional and behavioral problems – especially disruptive behaviors – and not just a function of being in foster care (Garland et al., 1996). Finally, data suggest that these costs will only increase in the future because the number of children in foster care has swelled almost 60% from 1980 to 1995. This increase in placement rates is expected to continue, which has the net effect of exponentially expanding not only the number of affected children, but the cost to society.

Theoretical evidence for targeting caregiver training

Given the overwhelming needs of the children in foster care and the high costs associated with them, researchers and policy makers have searched for ways to improve foster care. One proposed method is to administer needed services through the foster caregivers. The rationale for training foster caregivers, especially in the management of disruptive behavior, stems from the social learning theory conceptualization of caregiver–child interaction (Patterson, 1982, 1986). In this model, some children learn to avoid parental discipline and limits through increasingly negative behaviors. A coercive interaction results over time in an escalation of the child's aggressive, noncompliant, and oppositional behavior, as well as amplified parental anger and use of increasingly forceful means of discipline (e.g. yelling to spanking to physical abuse), which in turn models the negative behaviors the caregiver is acting to reduce. Research has shown that the mothers of children with clinical levels of disruptive behavior are more critical, less positive in their interaction, less involved in monitoring their children's behavior, and, paradoxically, more permissive than caregivers of nondisruptive children (Patterson, Reid, & Dishion, 1992). The coercive nature of the caregiver–child relationship is especially critical and points to ineffective parenting skills as having a central role in the maintenance of these aggressive and oppositional behaviors. Based on this model, targeting parenting behavior is a logical intervention.

The challenge for a foster care model is that the intervention to improve caregiver–child relationships focuses not on the parent who putatively caused the child's misbehavior and maladaptive patterns, but rather on the foster caregiver. Based on the social learning theory model of disruptive behavior, it may not be enough that foster caregivers initially exhibit well-intentioned or average caregiving skills. Instead, through the transactional process outlined ealier, a 'good enough' foster caregiver can be pulled into a negative interaction cycle when a child enters the home with a high level of disruptive behavior. Indeed, it has been shown experimentally that disruptive behavior may evoke coercive parenting from parents of nondisruptive children (Anderson, Lytton, & Romney, 1986). Without foster caregivers' awareness of this cycle and effective methods for reducing these negative behaviors and encouraging prosocial activity,

children's disruptive behavior would be expected to continue, undermining the caregiver–child relationship and threatening the stability of the foster care placement. Placement is endangered because negative child behavior has consistently been implicated in children's removal from foster homes (Pardeck, Murphy, & Fitzwater, 1985). Indeed, Cooper, Peterson, and Meier (1987) found that over 25% of foster children were removed from the home because the foster caregivers felt that they were incapable of handling the child's behavior.

In addition to social learning theory, another reason for intervening with foster caregivers is that these children and adolescents often present their foster families with situations and behaviors that are not commonly found in the general population (e.g. including the foster caregivers' own biological children). Behaviors such as public masturbation or the persistent use of foul or graphic language in elementary school-age children, which foster caregivers report are frequent in foster children (Nilsen, 2001), may cause any caregiver considerable distress. Support for training foster caregivers to reduce child behavior problems also comes from other research that has found that increased preparation and training for foster caregivers resulted in fewer placement failures (e.g. Cautley, 1980; Chamberlain, Moreland, & Reid, 1992; Smith & Gutheil, 1988), which is especially important for children in foster care because it has been shown to be a significant predictor of the child's future psychological functioning (Pardeck et al., 1985; Thorpe & Swart, 1992). Finally, as researchers have pointed out (Sinclair & Wilson, 2003; Wilson, Petrie, & Sinclair, 2003), disruptive behavior, in isolation, is not the greatest predictor of a placement disruption. Instead, it is the characteristics of the caretaker (i.e. commitment to the child) that interact with behavior to disrupt placements. All of these factors further highlight the need to consider specialized training for foster caregivers.

The current context and approach to foster caregiver training

Despite the theoretical promise of foster caregiver-training interventions, evidenced-based programs have only just begun to be employed with children in the foster care system. The only intervention for foster care yet to be empirically supported involves therapeutic foster care for adolescents (generally, ages 12 and up) whose chronic and severe disruptive behavior has resulted in their involvement in the juvenile justice system (see Fisher & Chamberlain, 2000). Therapeutic foster care employs a multi-system approach to work with the affected adolescent, biological family, and the foster caregivers to address the multiple problem areas often found in youth in a juvenile detention setting. Inherent in these programs is also additional support from agency social work staff and mental health professionals. Although many of these adolescents have experienced parental maltreatment, their primary reason for foster care placement is to avoid juvenile detention or residential placement (Fisher & Chamberlain, 2000). Reviews of this research have consistently shown that therapeutic foster care produces greater behavioral changes in children than residential care (e.g. Meadowcroft, Thomlinson, & Chamberlain, 1994; Reddy & Pfeiffer, 1997). Further, for these severely troubled adolescents, therapeutic foster care also increases placement stability and reduces the restrictiveness of later placements (Reddy & Pfeiffer, 1997). Importantly, these gains are made at a lower cost than traditional residential placements (Meadowcroft et al., 1994), although at a much greater price than would be allocated for children with less severe behavioral and mental health problems, such as infant to pre-adolescent children entering the foster care system through the child protection services because of abuse and neglect.

More recently, researchers have begun to apply caregiver-training models to preventive work with infants (Dozier et al., 2002) and preschool-age foster children (Fisher et al., 1999, 2000). These younger populations (i.e. before adolescence) are important, because their primary reason for placement is parental neglect/abuse (Administration for Children, Youth and Family Services, 2001) rather than through involvement in the juvenile justice system. These programs are considerably less intensive than those targeting criminally offending adolescents. Investigators with the Oregon Early Intervention Program have shown that training foster caregivers in a social learning theory-based program, in conjunction with services for the child (to address developmental delays) and biological family, produces significant improvements in child behavior, caregiver–child interaction, and foster caregiver satisfaction (Fisher et al., 1999, 2000). Chamberlain et al. (1992) also found that 4- to 18-year-old children whose foster caregivers received specialized training (plus an increased stipend to compensate them for time spent training) showed less disruptive and more prosocial behavior over a 3-month period than either children whose foster caregivers had received only the additional stipend or children in the control group. This was the case even though caseworkers rated the caregiving skills of the parent-training group as worse than the other two groups at baseline. Unfortunately, this later study was small, with a wide age range and menu of services, so that the results as to which services and for which age ranges it was most effective, remain unclear.

Despite these positive findings, other investigators (Macdonald & Turner, 2005; Pithouse, Hill-Tout, & Lowe, 2002) have reported on less success for foster caregiver trainings. These projects examined the effects of foster caregiver training with samples of children with a wide age range and used brief treatment programs designed specifically for the investigation. It is likely that these programs failed to find significant change in child behavior for two major reasons: (1) The wide developmental stages addressed required too broad a range of parenting skills; or (2) the brief timing of the interventions was of insufficient 'dose' to affect change or did not provide enough between-session time for caregiver skill development. Thus, these studies suggest that restriction of the age range to standardize the parenting skills necessary to manage challenging behavior and a long enough intervention period to change behavior are necessary criteria for successful foster caregiving interventions.

Current study

In short, past investigators have shown that, when implemented with a specific age range and of sufficient dose, foster caregiver-training programs are successful with both adolescents with severe behavior problems and at-risk infants (Dozier et al., 2002) and preschool-age foster children (Fisher et al., 1999, 2000). What is lacking is evidence for caregiver-training for preadolescent, elementary school-age children in foster care. No research has yet examined the effectiveness of caregiver-training programs with mid-age (i.e. 5–12 years) population. This elementary school-age group is especially important within the foster care system for three reasons. First, this is the average age of entry into the system (Administration for Children, Youth and Family Services, 2001). Second, many social service caseworkers report that children in the elementary-school age range are harder to place because many families select infants and preschool children. Finally, research has consistently shown that the psychological adjustment of children in foster care decreases with age, that is, older children exhibit poorer functioning than infants and toddlers (Halfon et al., 1995; Trupin, Tarico, Low, Jemelka, & McClellan, 1993). But, perhaps more importantly, the ages from 5 to 12 are when disruptive behaviors in foster

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children increase in prevalence (Halfon et al., 1995) and most dramatically threaten the stability of the child's foster care placement.

This pilot study consists of a 12-week group foster caregiver-training program for the caregivers of foster children aged 5 to 12. The intervention focused on: (1) Parenting skills and caregiver–child interaction; (2) psychoeducation specific to the foster care system; and (3) social support for foster caregivers. This novel intervention extends the past research on caregiver-training for foster caregivers by creating a program targeting the behavior of preadolescent school-age children, using trained foster caregiver mentor/trainers in a real-world setting, and providing pilot data to evaluate the program's feasibility and potential with this age group.

The study incorporated several additional innovations. Specifically, because researchers have found that parents are more engaged and active in a parent-training programs if they perceive the leaders to be like themselves (Orrell-Valente, Pinder-hughes, Valente, & Laird, 1999), we incorporated foster caregivers in the group leader-ship as coleaders. Furthermore, because of the growing interest in preventive approaches, we randomly selected foster caregivers with children in the target range from the local social services agency. The aim was to provide a general service to all foster caregivers, rather than including only those foster families whose children already demonstrated clinical disturbance.

Methods

Participants

Foster caregivers   Eighteen foster families were recruited for participation. The recruit-ment rate was 58.8% (18 of 31 families contacted). For families who refused to partici-pate, reasons were almost evenly distributed between families that were 'not interested' (53.8%) or 'too busy' at the moment (46.2%). Because of the pilot nature of the study, the 7 participating families who were interested in participating, but had scheduling conflicts with the group meeting time, were assigned to the comparison group. When a foster family had two caregivers ($n = 5$) both were encouraged to participate, although one family consistently attended sessions with both caregivers. Because of the increased time demand, transportation, and possible child care costs that caregivers may have incurred completing the training program, foster caregivers were paid US$70 per month per family for participation during the 3 months of the group (US$210 total). In addition, all caregivers in the intervention group received credit for continuing foster caregiver education equivalent to the number of hours that they attended the group.

Children   Eighteen children in foster care, aged 5 to 12 years, were recruited. Children were an average age of 8.11 years ($SD = 1.61$): 61.1% girls. Although detailed placement histories for each child were not collected, foster caregivers reported that children had been in their current foster homes for a minimum of 8 months and ranged up to 4 years. Three of the children were in preadoptive homes, while the others had a goal of reunifi-cation with their biological parent(s). The specific maltreatment history for each child was not available. Consistent with the sampling strategy, children entered the study with a wide range of psychosocial functioning: One child was enrolled in a day treatment program for mental health concerns, while five others were reportedly doing well in regular education classes. Children received a small toy (US$5 value) for their participation.

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Mentor/trainers Foster caregiver mentor/trainers included four foster caregivers selected by a consensus panel of five local foster care experts. All of the foster caregivers that were approached for a role as a mentor/trainer were recruited. Mentor trainers were all female foster caregivers with between 4 and 27 years of experience in the child welfare system. Similar to the ethnic makeup of the foster care population in the county, 50% of the mentor/trainers were African American. Mentor/trainers were assigned two foster caregivers each from their group. Mentors received US$10 per hour for time spent in training, 2 hours of weekly supervision, and group time, as well as for time spent providing mentoring services as needed.

Measures

Children and caregivers were assessed pre and post intervention. Assessments took place within 2 weeks of the beginning and end of the intervention. Foster caregiver reports of child behavior, self-reports of distress, caregiver–child interaction, and parenting skills were collected prior to beginning the group and within 2 weeks of the end of the group treatment. Intervention acceptability was assessed at the end of group treatment.

Child psychosocial functioning

The *Behavioral Assessment System for Children* (BASC; Kamphaus, Reynolds, & Hatcher, 1999) was used to assess child functioning. The BASC is a 148-item standardized caregiver report of child psychological functioning. This measure yields 10 symptom syndromes and two broad-band scales (i.e. Internalizing and Externalizing). The BASC is a widely used child behavior problem checklist on which a considerable body of reliability and validity data has been published (Kamphaus et al., 1999). Test–retest, internal consistency, and interrater reliability are all good. Construct, concurrent, discriminant, and predictive validity are also good, and the instrument is treatment sensitive.

Caregiving

Parenting Stress Index, Short Form (PSI) The PSI (Abidin, 1997) is a 36-item measure of stress in the caregiver–child relationship that may increase the risk of dysfunctional foster caregiving behaviors or behavior problems in the child. The measure taps three major areas that may be a source of parenting stress: Perceived difficulty of the child, caregiver distress, and dysfunctional child–caregiver interaction. In addition, there is an overall stress index. Construct validity of the PSI is supported by significant correlations between PSI scores and caregiver anxiety. Abidin (1997) reported internal consistencies of .70 to .84 for the subscales: .90 for the child domain and .93 for the caregiver domain.

Adult–Adolescent Parenting Inventory (AAPI) Parenting knowledge and attitudes, as well as an understanding of child development, will be assessed with the AAPI (Bavolek, 1990). This 32-item inventory was developed initially as a screening tool for use with adolescent and adult caregivers to assess childrearing and parenting attitudes of individuals at 'high risk' for child abuse. The AAPI has four subscales including: (1) Inappropriate Expectations; (2) Lack of Empathy; (3) Parent–Child Role Reversal; and (4) Oppressing Independence. A fifth scale, which assesses attitudes toward corporal punishment was not included because it is against local law for foster caregivers to use any form of corporal punishment with the children in their care. The items were removed because

foster caregivers reported feeling that the items were 'offensive'. The AAPI has been employed with both abusive and nonabusive adults (Bavolek, 1990). Cronbach's alphas for the subscales range from .69 to .86, while test–retest reliability for the full scale was .76 (Bavolek, 1990). The AAPI is sensitive to treatment effects.

Treatment acceptability

The Parent Satisfaction Questionnaire (PSQ)   At the end of treatment, caregivers were given the 68-item PSQ to complete. The PSQ (Webster-Stratton, 2001) includes 5 scales: General Satisfaction, Program Usefulness, Technique Ease, Technique Usefulness, and Leader Satisfaction. The authors report Cronbach alphas in the .92 to .95 range for all but the general satisfaction scale ($\alpha = .52$). This measure has been employed with community and clinical samples completing the Incredible Years program.

Treatment development
Three steps were required to develop and standardize the intervention. The three steps were: (1) Conduct Focus Groups; (2) Develop the Program; and (3) Train Mentor/Trainers.

Conduct focus groups   To determine the perceived needs of area foster caregivers, the research team conducted four focus groups with current foster caregivers. The goals of these groups were to determine the needs of local foster caregivers and the ways in which these needs might best be met. Foster caregivers consistently reported a desire for specialized training, as well as for more interpersonal support around the experiences of foster care. Multiple participants in the groups mentioned the appeal of having an ongoing training program, as well as a mentor, who is also a foster caregiver, who could be used for consultation. Importantly, although families consistently expressed a need for more training, many voiced concerns about employing a 'parenting program'. The concerns about targeting parenting *per se* involved three themes: (1) Foster caregivers are officially certified caregivers, and therefore 'good' caregivers; (2) foster caregivers are trained that the children for whom they care are 'damaged' by prior life experiences and are the ones that require intervention; and (3) foster caregivers who had already parented their own biological children had well formed attributes about their abilities based on past experiences. These findings indicated that the intervention should be framed as specialized training to develop expertise specific to foster care and not as a method of enhancing one's own caregiving skills.

Creation of the program   Based on the findings from the focus group, the intervention was developed as an augmented version of the Incredible Years BASIC school-age parent-training program (Webster-Stratton, 1994, 1998, 2001). All of the topics and videos of the Incredible Years Program were retained, although the discussion content was modified to fit the specific cultural milieu of foster care. Additional materials that specifically addressed the issues of foster care (e.g. biological parents, needs of children in care, dealing with child welfare, and multicultural issues) were created by the investigator and the mentor/trainers. Thus, augmentation of the Incredible Years program was based on feedback from the focus groups, consultation with the local social services' foster care team, and extensive input from the foster caregiver mentor/trainers. The final manual for the intervention includes extensive session-by-session instructions.

The program was delivered in a small group format (three to four caregivers or caregiver couples per group) for a 12-week period. Each group session lasted

approximately 2 hours. Because of the length of the groups and the fact that the training program took place during the evening, childcare and dinner for the families were provided.

Using Incredible Years materials (Webster-Stratton, 1994, 1996, 2000, 2001), group topics focused primarily on caregiver training to reduce aggressive, noncompliant, and oppositional behavior. Caregivers were taught nonviolent methods of discipline that include ignoring, time out, and logical and natural consequences, as well as more effective methods for monitoring their child's behavior. Finally, caregivers received the standard program education on problem solving, both for their children and the family as a whole. In addition, specially created psychoeducational materials on issues related to children in foster care, the legal system and social services, and mulicultural issues were distributed to augment the standard discussion.

Consistent with the manual of the Incredible Years program (Webster-Stratton, 1994, 1996, 2000, 2001), parenting skills were addressed through group discussion stimulated by standardized video-taped vignettes, group rehearsal and role-plays, and weekly homework assignments. For each topic, a video clip of parent–child interaction illustrating the topic was shown. The clip was discussed and then caregivers practiced the new skills or techniques. In addition to the sessions, caregivers also received an Incredible Year's book that covered the topics of the discussions, handouts that briefly repeated the week's themes, recording forms for exercises to be completed at home, and handouts covering some of the common problems or situations faced by foster caregivers.

Results

Data analysis

Comparisons between treatment and comparison groups at pretest are first reported. We then report differences over time in the measures of parenting and child behavior in the two groups. Given the small sample size and preliminary nature of the analyses, we report analyses based on statistical significance and effect size.

Table 1 presents the demographics of the children and their foster caregivers. Demographics for participating families were comparable to those for the local foster care community. There were no significant differences between participants in the treatment and comparison group for child or caregiver age or race/ethnicity, caregiver marital status, or the number of children in the home. There was a trend toward participants in the treatment group being more likely to have attended at least some college than those in the comparison group (treatment 8/11 and comparison 2/7; $\chi^2(1) = 3.38$, $p = .09$).

Table 2 shows the means for the child behavior and parenting variables at pre and post intervention for both study groups. Table 3 is the correlation matrix for the study variables.

Child behavior

Analyses focus on children's externalizing behavior as the primary target of the intervention. Because age and sex have been found to be predictors of child behavior, sex and age differences were examined, although these variables did not significantly interact with group status and thus were not included as covariates. At baseline there were no significant differences between children in the treatment or comparison groups. Figure 1 illustrates changes in T scores for each of the externalizing areas: Decreases in scores indicate a positive change in behavior. At the final assessment, there was a trend for children in the treatment group to show greater reductions in overall externalizing symptoms compared to peers in the comparison group. More specifically, a repeated

Table 1. Participant demographics

	Comparison group	Treatment group
Children		
Sex (female)	57.1%	63.6%
Age	7.86 (SD = 2.04)	8.27 (SD = 1.35)
Race/ethnicity: African American	71.4%	63.6%
White	14.3%	36.4%
Hispanic	14.3%	0.0%
Foster caregivers		
Age	47.5 (SD = 6.78)	44.09 (SD = 8.88)
Race/ethnicity: African American	57.1%	63.6%
White	28.5%	36.4%
Hispanic	14.3%	0.0%
Marital status: Married	71.4%	36.4%
Maternal occupation: At home	57.1%	45.4%
Professional	28.6%	27.3%
Service or factory	14.3%	27.3%
Maternal education: Some high school	28.6%	27.3%
High-school graduate	42.8%	0.0%
Some college	14.3%	45.4%
College graduate	14.3%	27.3%
Years as foster caregiver: Less than 1	28.5%	18.2%
1–3 years	28.5%	36.4
3–5 years	42.9%	36.4
5 or more years	0.0%	9.0%
Total number children in home	2.57 (SD = 1.40)	2.64 (SD = 1.29)
Number foster children in home	2.14 (SD = 1.07)	1.91(SD = 8.31)

Table 2. Mean pre and postintervention child behavior and parenting scores

	Comparison group		Treatment group	
	Means (SD)		Means (SD)	
Children–BASC scales[1]	Pre	Post	Pre	Post
Conduct scale**	58.57 (17.67)	66.14 (13.15)	61.73 (8.25)	59.27 (8.89)
Aggression scale	56.14 (20.09)	56.57 (11.16)	56.09 (12.79)	54.09 (7.73)
Hyperactivity scale	63.29 (17.34)	65.14 (12.54)	60.64 (13.97)	56.09 (9.44)
Externalizing scale*	60.86 (18.81)	64.86 (11.94)	61.09 (10.58)	58.09 (7.40)
Foster caregivers – PSI scales[2]				
Parental distress	29.00 (5.26)	27.57 (6.27)	27.00 (5.64)	29.72 (8.62)
Dysfunctional interaction	25.29 (6.47)	29.14 (7.27)	24.09 (6.30)	28.09 (11.75)
Difficult child	30.00 (4.16)	30.57 (6.55)	31.81 (6.76)	31.90 (8.12)
Overall stress	84.29 (11.86)	87.29 (15.42)	82.91 (14.54)	89.73 (26.76)
Foster caregivers – AAPI scales[3]				
Inappropriate expectations	20.71 (4.57)	20.00 (3.21)	20.18 (4.14)	19.64 (4.18)
Lack of empathy	37.43 (4.12)	39.57 (2.76)	38.55 (4.80)	39.46 (4.32)
Parent–child role reversal	25.14 (5.11)	27.57 (4.65)	26.73 (5.16)	28.64 (3.61)
Power differential	19.57 (2.94)	21.29 (1.80)	18.55 (3.47)	20.37 (2.91)

[1] = Behavioral Assessment Scale for Children, [2] = Parenting Stress Index, [3] = Adult–Adolescent Parenting Inventory. * p = .08; ** p = .02.

Table 3. Correlation matrix for pre-treatment child and parent variables

	BASC Conduct	BASC Aggress	BASC Hyper	BASC Ext	PSI Distress	PSI Interact	PSI Child	PSI Stress	AAPI Expect	AAPI Empathy	AAPI Roles
BASC Conduct											
BASC Aggress	.602**										
BASC Hyper	.404	.606**									
BASC Ext	.775**	.898**	.818**								
PSI Distress	.068	.328	.005	.170							
PSI Interact	.545*	.516*	-.011	.413	.323						
PSI Child	.380	.377	-.206	.214	.135	.588*					
PSI Stress	.451	.543*	-.094	.358	.622**	.861**	.772**				
AAPI Expect	-.670**	-.202	-.085	-.357	.027	.473*	-.412	-.392			
AAPI Empathy	-.190	.057	-.009	-.050	-.349	-.228	-.025	-.262	.410		
AAPI Roles	-.099	.090	.097	.038	-.334	-.220	-.066	-.270	.390	.867**	
AAPI Power	-.173	.098	.218	.065	-.155	-.198	-.231	-.259	.502*	.761**	.787**

BASC = Behavioral Assessment Scale for Children; PSI = Parenting Stress Index; AAPI = Adult–Adolescent Parenting Inventory. * $p > .05$; ** $p > .01$.
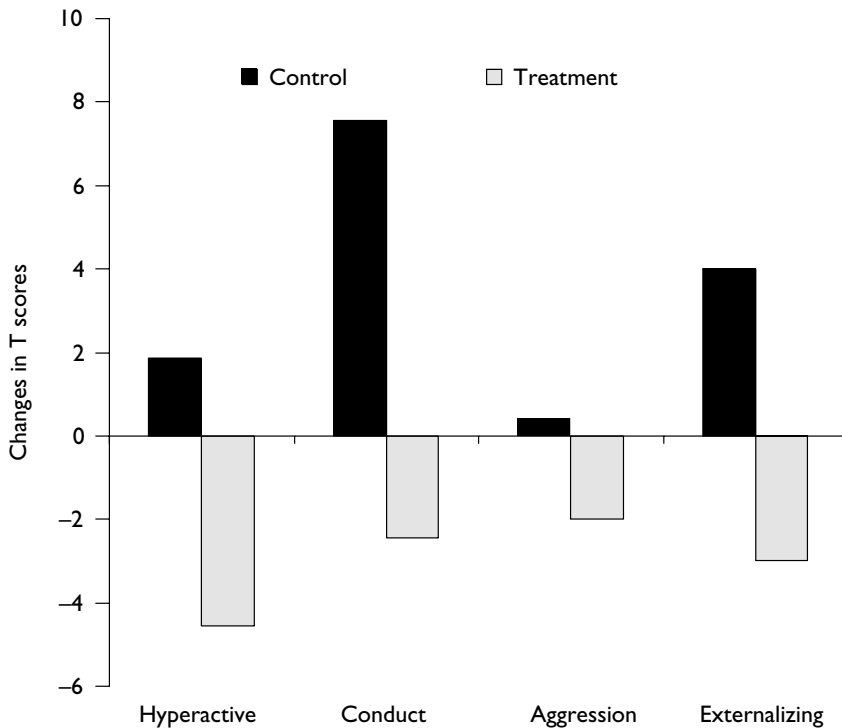
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Figure 1. Changes in T scores for each of the BASC externalizing areas: Decreases in scores indicate a positive change in behavior, increases over time are indicative of more problematic behavior.

measures ANOVA showed no main effect for externalizing behavior over time ($F(1, 16) = 0.07, p = .79$), but a trend for an interaction with the treatment condition and time ($F(1, 16) = 3.46, p = .08$). When the specific externalizing subscales were examined, ANOVAs showed that families that participated in the intervention reported significantly less conduct symptoms in their foster children than families who did not attend groups ($F(1, 16) = 6.26, p = .02$). This is important because it includes behaviors such as lying, stealing, problematic peers, and general troublemaking behavior that are often salient in elementary school-age children in foster care. There were no significant differences between the two groups for parental reports of child aggressive ($p = .63$) or hyperactive behavior ($p = .15$). Given the small sample size, Cohen's *d* was calculated for each of the disruptive behavior scales. Effect sizes were in the large range for the Conduct scale ($d = .82$), the moderate range for the Externalizing and Aggression scales (*d*s = .68 and .61, respectively), and the small range for Hyperactivity ($d = .26$).

It is important to note that many of the children initially scored in the clinical range (i.e. T score > 70) at the preintervention assessment. The percentage in the clinical range was as follows: Hyperactivity 33.3%, Aggression 22.2%, Conduct 16.7%, and Externalizing 33.3%. Although the sample size was too small to test for significance, review of scores indicate that post treatment more children scored in the clinical range in the comparison than the treatment group: Hyperactivity 28.6% vs. 9.1%, Aggression 14.3% vs. 0%, Conduct 42.9% vs. 18.2% and Externalizing 28.6% vs. 9.1%.

Although not the focus of investigation, internalizing and adaptive functioning scores were compared in the two groups. No significant differences were found for the overall internalizing scale ($p = .35$) or the adaptability ($p = .65$), social skills ($p = .42$) or leadership

scales ($p = .17$) of the BASC. It is important to note that although the reported changes in BASC scores are not significant in this small sample size, parental reports of behavior (see Figure 1) in the comparison group became worse over time, while those in the treatment group showed small, positive changes in all of the areas targeted.

Caregiving

Given that caregiving is the proposed mediator for changes in child behavior in the intervention, changes in caregiver stress and attitudes were examined. As shown in Table 3, select PSI and AAPI parenting scales were found to correlate with the target child behaviors. More specifically, the overall Parent Distress scale of the PSI was related to the child Aggression scales on the BASC ($r = .54$), while the PSI Dysfunctional Child–Parent scale was related to both the BASC Aggression and Conduct scales ($r = .52$ and $r = .55$, respectively). Only the Inappropriate Expectations scale of the AAPI correlated with the BASC (Conduct scale $r = .67$). Thus, initial review of the caregiving measures indicates relationships between some of the parenting constructs of interest and child behavior.

Despite the initial correlations, as shown in Table 2, none of the parenting measures showed significant differences between the two groups before or after treatment. Neither the PSI nor AAPI scales were found to differ significantly between the two groups. Similar to the BASC, changes were all in small, but positive direction.

Even though none of the parenting measures identified any differences between the two groups, foster caregivers subjective reports of their caregiving indicated positive change. Consistent with the findings on the BASC, the majority of participants in the treatment group who completed the satisfaction questionnaire ($n = 8$) reported feeling that their caregiving had improved because of their participation in the Fostering Futures program. In addition, two-thirds reported that because of their group participation, they were now better able to manage challenging child behavior. Foster caregivers in the treatment group also reported a decrease in their child's perceived difficulty, another index that suggests that foster children of participants had a higher level of psychosocial functioning after the completion of the group.

Treatment acceptability

The majority of caregivers reported high acceptability for the treatment. Using a 1 to 7 Likert scale, average satisfaction score for 'overall feelings about the program' was a 6.13, which was qualified as being between 'positive' and 'very positive'. Participants also endorsed their belief that the program was an appropriate approach to treating their child's behavior (6.13) and they were very confident in their ability to manage their child's current and future behavior problems (6.5 and 6.13 respectively). Furthermore, no caregivers reported feeling that the group had caused them any new difficulties or had any adverse consequences.

Moreover, participating caregivers reported feeling more competent as a foster caregiver than they had before the start of treatment. Qualitative remarks from participants indicate that they appreciate that they share similar problems with other foster caregivers. In fact, review of qualitative comments from participants indicates that the group discussion of behavior and caregiving and being able to 'connect' with other foster caregivers provided the greatest value within the overall program. Thus, it is not surprising that all of the caregivers in the treatment program described the group setting as very beneficial.

Finally, the greatest indicator for acceptability of an intervention is participation, that is, those who find the program unacceptable will not come. In this study, 10 of the 11

treatment families came to 9 or more sessions. The remaining participant initially reported that the group did not meet her needs, but returned for the final sessions at the recommendation of another group member. Thus, the high number of sessions attended by the intervention group is consistent with the overall acceptability and satisfaction reported by the participants.

Treatment fidelity

Given the pilot nature of the study, treatment fidelity was assessed with a checklist of each of the topic areas to be addressed each session, which was completed by the group leader (the author) after each meeting. Review of the forms indicates that the major topics areas were covered in all but one session. In that session, the major topic was addressed (i.e. family problem solving), but the entire agenda was not covered because of the enthusiasm of the participant discussion.

Discussion

This pilot project suggests that there is value to providing foster caregivers with a parent-training program. Overall, child externalizing behavior, especially conduct symptoms, decreased as a result of participation in the Fostering Futures program. There was no effect for internalizing or adaptive behavior in children whose families completed the program. Further, parenting stress and attitudes, as measured by the PSI and AAPI were not related to participation in the treatment program. The treatment also showed a high level of acceptability and participating families reported satisfaction with the program and outcomes.

Child behavior

Despite the small sample size of the study, three striking findings stand out. First, children whose families completed the intervention had significantly lower reported conduct symptoms than those in the comparison group. More specifically, this means that treated children exhibited less lying, stealing and general trouble-making behavior than untreated peers. This is important because families in the group consistently reported that these behaviors in elementary school-age children caused them considerable discomfort and distress. Many families note that in adolescents, these behaviors may seem more normal or at least normative, but when exhibited by a younger child (i.e. under the age of 12) they are a cause for major concern and threaten placement. As one participant noted, 'If he is doing this [stealing] now, what will he be doing at 15? I don't want to be around to find out'. By addressing these issues before adolescence, placements may be more stable and further problems avoided.

The second striking finding was the effect sizes found for the externalizing behaviors in the study. For all but hyperactive behaviors, a moderate or large effect size was obtained, suggesting that an adequately powered randomized clinical trial is warranted. The final noteworthy finding concerns that number of children scoring in the clinical range after treatment. At the end of the intervention, fewer children whose families completed the intervention continued to score in the clinical range. Thus, although the small sample size and lack of a true control group limits the attributions that can be made about the intervention, these findings suggest that the Fostering Futures program deserves further empirical investigation.

This study also confirms the work of researchers indicating that children in foster care have high levels of disruptive behavior. Mean scores for the children on the disruptive scales fell within the normal range, but this masks the fact that a full third (33.3%) of

children initially scored in the clinical range on the broad band externalizing scale of the BASC. Given the saturation of risk factors within this group of children and the documented maltreated, this high rate is not unexpected, but is significantly greater than would be expected in the general population, again highlighting the need for intervention in this group of at-risk children.

Caregiving

A puzzling finding in this study was the lack of the effect for the treatment on caregiving attitudes and stress. None of the scales on either of the measures showed any significant differences between groups. There are two possible explanations for this lack: (1) That the treatment had no effect on caregiving, or (2) that the measures employed were not sensitive to actual changes in caregiving. Obviously, the first hypothesis is difficult to accept because there is no other viable mechanism of action for the reported changes in child behavior. The second explanation is likely a more obvious choice, especially given that the correlations between the parenting measures and children's initial behavior were limited, especially for the APPI. Both the AAPI and the PSI share two commonalities that may limit their usefulness in foster care interventions research: They are both designed for biological parents and were not developed to assess change in families with school-age children. Further, as Dishion, Rivera, Verbekmoes, Jones, and Patras (2002) note, the relationship between self-reports of caregiving behavior and attitudes and actual parenting behavior may not be highly correlated; there are data to suggest that caregiver reports of parenting skills and attitudes and actual parenting may not be the same. Thus, observations of the caregiver–child interaction may be the best way to provide an opportunity for understanding the mechanisms of change in a parenting intervention (Eddy, Dishion, & Stoolmiller, 1998). By direct observation, parenting behavior can be objectively quantified and compared to self-reports, and the mechanisms of change within the family can be addressed. Future investigations of the intervention will include observations of caregiver–child interaction as part of the assessments.

These results also suggest a question as to whether the intervention skills training itself was causal in the observed changes or whether it was a generic effect of group social support. The findings of no changes on the measured parenting stress areas suggest that the group format alone was not enough to produce the changes in child behavior, which were those that were theoretically targeted by the intervention. Thus, it seems likely that it was the skills training in the group format that yielded the differences, rather than exclusively the effect of bringing foster caretakers together for support.

Limitations

Obviously, the small sample size and lack of a randomized control group limit the findings from this pilot and point to the need for a larger efficacy trial. Continued testing of the Fostering Future program is important because the current system of care does not provide children with the support they need to function successfully. This is very evident on the recent Casey Foundation Report (2005) of children aging out of foster care. This study demonstrated that the high cost of continued behavior problems of children in foster care. Intervention early in a child's time in foster care may help to change maladaptive developmental trajectories that lead to failure of stage-salient tasks. Children's improved behavior will not only enhance stability in the foster home (Pardeck et al., 1985), but should also make reunification more viable because child mental health concerns are one factor determining the ability of a child to return to their biological home (Osofsky, Maze, Lederman, Grace, & Dicker, 2002).

Future trials of the Fostering Futures program will include more detailed examination of the effect of the intervention on the child's psychosocial adjustment, the foster caregiver's observed parenting skills, and the effect of the intervention on other children in the home. This last point is especially important because it points to the utility of providing intervention directly to foster caregivers: The skills learned for one child may generalize to others. If this is the case, the cost of the program would be greatly reduced as the effect would be spread across the countless children that live with foster families.

Note

1. The term 'foster caregiver' is employed to describe what is called in some areas a foster carer and in others a foster parent.

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