
The Early Intervention Foster Care Program: Permanent Placement Outcomes From a Randomized Trial

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Preschool-aged foster children face multiple risks for poor long-term outcomes. These risks appear to increase with the number of placement changes experienced. The Early Intervention Foster Care Program (EIFC) targets the spectrum of challenges that preschool-aged foster children face via a team approach delivered in home and community settings. In this article, we report on permanent placement outcomes from the EIFC randomized clinical trial. Children in EIFC had significantly fewer failed permanent placements than children in the regular foster care comparison condition. The number of prior placements was positively associated with the risk of failed permanent placements for children in the comparison condition but not for children in EIFC. Type of prior maltreatment did not predict permanent placement outcomes. These results provide the foundation of an evidence base for the EIFC program as a preventive intervention to improve permanent placement outcomes for preschool-aged foster children.

Keywords: *treatment foster care; permanency; disruption*

Since the early 1980s, the U.S. foster care population has more than doubled, from approximately 250,000 children in 1983 to recent estimates of close to 600,000 children (U.S. Department of Health and Human Services [USDHHS], 2000). Factors contributing to this trend include changes in child abuse and neglect reporting requirements; an excess of en-

trances into foster care as compared to exits; and the impact of poverty, family violence, mental illness, and substance abuse in the face of decreasing budgets for social services (Barbell, 1997). Recent surveys have established that foster children in the United States are at exceptionally high risk for poor outcomes across many domains. They exhibit psychosocial problems at a considerably higher rate than the general population. Indeed, in many ways, they resemble clinical samples in their levels of psychosocial maladjustment (Clausen, Landsverk, Ganger, Chadwick, & Litrownik, 1998; Glisson, 1994, 1996; Halfon, Mendonca, & Berkowitz, 1995; Pilowsky, 1995; Trupin, Tarico, Benson, Jemelka, & McClellan, 1993; Urquiza, Wirtz, Peterson, & Singer, 1994).

Young children in foster care are of particular concern. From the early 1980s through the mid-1990s, children younger than 6 years of age were the fastest growing segment of the foster care population, increasing at twice the rate of the general foster care population (U.S. General Accounting Office, 1994).

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In recent years, growth in the proportion of young children in foster care appears to have leveled off, with little change in the proportion of foster children younger than age 6 (Newman, n.d.). However, even with no further increases in the proportion of foster children in this age group, the existing numbers are cause for concern: Children younger than age 6 represent approximately one third of all foster children in the United States (USDHHS, 1999).

Foster children in this age group appear to be especially vulnerable for poor outcomes. Klee, Kronstadt, and Zlotnick (1997), for instance, found that more than 80% of their sample of foster children younger than age 6 had developmental or emotional problems (50% had problems in both areas). Similarly, Landsverk, Davis, Ganger, Newton, and Johnson (1996) found that 60% of children younger than age 6 residing in kinship care scored in the questionable or abnormal range on the *Denver Developmental Screening Test II* (Frankenburg, Dodds, Archer, Shapiro, & Bresnick, 1992); 72% of the children younger than age 6 residing in nonrelative foster placements showed similar deficits. Ruff, Blank, and Barnett (1990) described the tendency for foster children younger than age 6 to manifest developmental delays and other physical, behavioral, and cognitive difficulties.

Challenges in Addressing the Needs of Foster Preschoolers

Despite these known developmental and psychosocial disparities, relatively little systematic programming or social policy has been oriented toward improving outcomes for foster children in this age range. This may be due to a number of factors. For example, the U.S. child welfare system is chronically underfunded (Courtney, 2000; Faver, Crawford, & Combs-Orme, 1999); thus, services are often rationed based on a prioritization of the immediate needs and risks. Within this context, funds are often disproportionately allocated to older children (Halfon et al., 1995), whose problems may place them at greater risk than younger children for placement failure, self-harm, harm toward others, and juvenile justice system involvement.

Some funds from outside of the child welfare system, including the federal Medicaid Title XIX program, are available to cover the costs of psychotherapy and other specialty mental health services. However, to qualify for such services, children must typically meet criteria for at least one Axis I diagnosis within the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* (American Psychological Association, 1994). Subsequent to diagnosis, the treatment authorization is typically based on an assessment of the severity of

psychopathology and impairment in functioning. These policies, though perhaps necessary given budgetary factors, are problematic for young foster children. There is an extensive literature on the limitations of the *DSM* system for infants, toddlers, and preschoolers (Dunitz, Scheer, Kvas, & Macari, 1996; Maldonado-Duran et al., 2003; Stafford, Zeanah, & Scheeringa, 2003). Research on young foster children suggests that this population experiences a considerable amount of psychopathology, even if higher rates of specific *DSM* disorders are observed in older children in this population. Symptom clusters observed in the younger population appear to be developmental precursors of more formal disorders, and thus important markers of risk. Unfortunately, this knowledge appears to have had limited impact on the availability of services for young foster children.¹

Young foster children may also qualify for services via early child special education (ECSE) funding. Such services are especially appropriate for children with cognitive, social, or motor developmental delays and may help to reduce the need for formal special education following entry into the school system. Unfortunately, there are few systematic efforts nationally to screen young children in foster care for developmental delays (Leslie, Gordon, Ganger, & Gist, 2002); moreover, such screening typically identifies only children who are profoundly delayed, allowing many foster children with lesser developmental delays to go unnoticed. Thus, ECSE services comprise a promising, though underutilized, resource for this population.

Developmental delays are particularly problematic when they occur in cognitive and social domains, greatly increasing the likelihood for difficulties when children enter the public school system. Without adequate services during the preschool years, young foster children face many ongoing challenges regardless of whether they remain in foster care, are reunified with birth parents, or are adopted. Often, such children must experience multiple social and academic failures in the school setting before they are referred for special education and other services (Halfon et al., 1995). By this time, remediation is considerably more complex.

From a prevention perspective, therefore, it may prove fruitful to employ an early intervention approach for addressing the psychosocial and developmental difficulties of young foster children. Effective preventive programming has the potential to improve reunification and adoption outcomes, to redirect foster children from psychopathological trajectories, to facilitate successful school entry, and to mitigate numerous long-term risks in this population. How-

ever, the child welfare system is unlikely to change its resource allocation methods until an evidence base documenting the relevant impact of systematic interventions has been established. As several authors have noted (Courtney, 2000; Gelles, 2000), there has been very little rigorous evaluation of programming for children in foster care. As a result, few evidence-based intervention programs specifically target preschool-aged foster children. Before child welfare policies regarding young foster children will change, such interventions must be developed and must show potential to be implemented in community settings. We anticipate that our study is part of a burgeoning area of research designed to demonstrate the utility of early intervention for preschool-aged foster children.

The Early Intervention Foster Care Program

The research described in this article emanates from a randomized efficacy trial to evaluate the Early Intervention Foster Care Program (EIFC). This downward extension, in terms of age, of the Multidimensional Treatment Foster Care program was developed at the Oregon Social Learning Center (in Eugene) in 1996 to treat chronic juvenile delinquency (Chamberlain, 2003a, 2003b; Chamberlain & Fisher, 2003). Both interventions were delivered through a team approach in which foster parents receive extensive preservice training and ongoing consultation and support from program staff, children receive individual therapy, and birth parents or other permanent placement resources receive parent training. Both interventions emphasize the following: concrete encouragement for prosocial behavior; consistent, nonabusive limit setting to address disruptive behavior; and close supervision of the child. The EIFC intervention also follows a developmental framework in which the challenges of foster preschoolers are viewed from the perspective of delayed maturation, rather than as strictly behavioral and emotional problems. Consequently, it is oriented toward creating optimal environmental conditions to facilitate developmental progress. These conditions include a responsive and consistent caregiver and a predictable daily routine with preparation for transitions between activities. Specifics about the EIFC intervention are provided in the methods section below and in detail elsewhere (Fisher & Chamberlain, 2000; Fisher, Ellis, & Chamberlain, 1999).

In 1999, we began a 5-year, federally funded randomized efficacy trial of EIFC to examine proximal and intermediate outcomes. We have gathered data across a broad range of domains, including the following: child psychosocial, neurocognitive, emotional, and academic functioning; foster parent and perma-

nent caregiver parenting practices; and child and family service utilization and satisfaction. We are also gathering information about the EIFC participants' ongoing placement experiences. Of particular interest are the success and failure rates of permanent placements following foster care, including reunification with birth parents, adoption by relatives, or adoption by nonrelatives.

Permanent Placement Outcomes

Based on prior research, focusing on permanent placement outcomes is warranted. For example, in a national survey of reunification and reentry into foster care by the USDHHS (2003), only two states met criteria set for a high percentage of reunification and a low percentage of reentries within 12 months. Similarly, Terling (1999) found that 37% of children reunited with birth families reentered the system within 3.5 years. Failed permanent placements will likely have considerable impact on the child. Aside from experiencing disrupted caregiver relationships, such children face uncertainty in their daily lives, including changes in home environment, neighborhood, school, and peer group. Consequently, permanent placement success or failure following foster care may be an important determinant of other psychosocial outcomes; as such, examining permanent placement outcomes is a well justified first step in understanding the long-term impact of an intervention.

A related area of interest in permanent placement outcomes is how varying degrees of involvement with the child welfare system relates to outcomes, as greater involvement appears to increase the likelihood that permanent placements will fail. For example, Courtney (1995) used administrative records for 6,831 children who were discharged from the foster care system in California. Longer time in care and greater instability in the child's placements were found to be positively associated with risk for reentry. Similarly, Wells and Guo (1999) examined records from 2,616 children in foster care in Ohio and reported a positive association between number of transitions during the first period in foster care and likelihood of reentry. Finally, in a review of records from 321 children in foster care in the United Kingdom, Farmer (1996) reported that first attempts at reunification were significantly more successful than subsequent attempts.

The availability of prior placement records for children in the current study allowed us to examine the effects of prior placements on permanent placement success or failure and allowed us to evaluate whether, over and above main effects on permanent placement outcomes, the intervention mitigated the risks result-

ing from placement history. To summarize, we examined the placement success rates of preschool-aged foster children (intervention and comparison conditions) who returned to their birth parent(s), were adopted by a biological relative, or were adopted by a nonrelative. We also examined whether placement success rates varied depending on the number of prior placements experienced. Additional potentially moderating variables, including type of maltreatment that led to the current foster placement, number of foster placements following entry into the study, and child gender, were included in the data analyses.

METHOD

Participants

In a collaborative process involving the research staff and the of the Oregon Department of Human Services (DHS) Child Welfare Division in Lane County, all 3- to 6-year-old foster children in need of a new foster placement who fell into the catchment area were identified. When deemed eligible for the study (i.e., expected to remain in care for more than 3 months), participants were randomly assigned to the intervention (EIFC; $n = 47$) or the regular foster care comparison condition (RFC; $n = 43$). RFC was a services-as-usual condition in which children were placed in state foster homes and were provided services in accordance with standard policies and procedures. These services often involve individual mental health therapy and medical and/or dental treatment. Some of the children in RFC also received developmental screening and referral for services if found to be delayed. Birth families and relative or nonrelative adoptive families also typically receive social service support, substance abuse and/or mental health treatment, and parent training (although not through our center).

Participants in the current study included children new to the foster care system, reentering foster care, and moving between placements. Randomization to the two study conditions occurred prior to the recruitment of each participant. The rationale for this relates to the complexity of implementing a large clinical trial into an overloaded foster care system. Our ongoing successful collaboration with child welfare caseworkers and foster parents depends on our ability to build and maintain good relationships. Randomizing as soon as eligibility criteria were met allowed us to reduce the number of contacts we had with caseworkers. It also allowed us to better present each family's involvement during recruitment.

TABLE 1: Demographic and Maltreatment Information for the EIFC and RFC Groups

| <i>Demographic characteristic</i> | <i>EIFC</i> | <i>RFC</i> |
|-----------------------------------|-------------|-------------|
| Mean Age at Study Start | 4.50 (0.86) | 4.22 (0.74) |
| Males | 66% | 60% |
| Ethnicity | | |
| White | 79% | 92% |
| Native American | 3% | 4% |
| Hispanic or Latino | 18% | 4% |
| Type of maltreatment | | |
| Sexual abuse | 17% | 8% |
| Physical abuse | 24% | 4% |
| Neglect | 55% | 84% |
| Emotional abuse | 4% | 4% |
| Type of permanent placement | | |
| Reunification | 48% | 68% |
| Relative adoption | 28% | 20% |
| Nonrelative adoption | 24% | 12% |

NOTE: EIFC = Early Intervention Foster Care; RFC = regular foster care.

When random assignment was completed, a staff member contacted the child's caseworker (who is also the legal guardian while the child is in care) and requested consent for the child to participate in the project. When possible, the staff member also sought birth-parent assent for the child's participation. With the caseworker's permission, the staff member contacted the foster parent(s) to schedule a home visit for the purpose of explaining the study and inviting them to participate. To be successfully recruited, the caseworker (on the child's behalf) and the foster family had to consent to participation. Recruitment rates were not significantly different for the two groups (89% for the EIFC condition and 80% for the RFC condition), suggesting no bias in refusal rates. For demographic information on the sample, please refer to Table 1. All children in the study were native English speakers.

Intervention Description

The intervention model for the study evolved from longitudinal studies on family interaction conducted at the Oregon Social Learning Center (e.g., Loeber, Weissman, & Reid, 1983; Patterson, 1982; Patterson, Dishion, & Bank, 1984; Patterson, Reid, & Dishion, 1992). These studies gave rise to an intervention approach for reducing disruptive behavior in children—parent management training (PMT; Forgatch & Martinez, 1999). The approach has been evaluated in randomized efficacy trials delivered at individual, family, and school levels (e.g., Bank, Marlowe, Reid, Patterson, & Weinrott, 1991; Brestan & Eyberg, 1998; Eddy, Reid, & Fetrow, 2000) and has been used successfully in treating older children and adolescents in

foster care (e.g., Chamberlain, Fisher, & Moore, 2002; Chamberlain & Moore, 1998). The PMT-based EIFC intervention has been tailored for the needs of foster preschoolers. Treatment fidelity and dosage are monitored via progress notes and checklists completed by clinical staff.

The EIFC intervention is delivered via a team approach to the child, foster care provider, and permanent placement resource (birth parents and adoptive relatives or nonrelatives). Before receiving a foster child, the foster parents complete intensive training. After placement, the foster parents work with a foster parent consultant and are given extensive support and supervision through daily telephone contacts, weekly foster parent support group meetings, and 24-hour on-call crisis intervention. The children receive services from a behavioral specialist working in preschool or day care and home-based settings. In addition, the children attend weekly therapeutic playgroup sessions where behavioral, social, and developmental progress is monitored and addressed. The program staff is largely composed of clinicians with bachelor's and master's degrees and a licensed psychologist as the clinical supervisor. Group supervision occurs weekly, with consultation provided as needed. A consulting psychiatrist provides necessary medication management to address symptoms of ADHD, anxiety, and other disorders. Whenever a child is being entered in a permanent placement, a family therapist works to train the parents (birth parents, adoptive relative, or adoptive nonrelative) in the same parenting skills used by the foster parents in the program to facilitate consistency between the home environments and to facilitate a successful transition. Children typically receive services for 6 to 9 months, including the period of transition to a permanent placement. Foster families and permanent placement resources receive the same services. In general, compliance with treatment is high for foster parents and permanent placement resources. It is not uncommon for birth parents to be mandated to substance abuse treatment. In the case of inpatient treatment, the EIFC family therapy does not begin until after the parent completes such treatment. In the case of outpatient treatment, family therapy runs concurrently with the substance abuse treatment. For a more comprehensive description of the program and its theoretical underpinnings, refer to Fisher et al. (1999).

Procedure

Children were first assessed at entry into the study, approximately 3 to 5 weeks after entering their new foster care placement. Children were assessed at 3-

month intervals over 24 months on a variety of measures including neuropsychological, cognitive, and behavioral measures not reported here. In addition, salivary cortisol was collected from the children at 4-week intervals. As is described below, children's placement records were obtained from the Oregon DHS Child Welfare Division of Lane County. Finally, children's case records were coded for maltreatment history.

Measures

Type of permanent placement. Permanent placements were defined as the final nonfoster care placement for the child. Recommendations about permanent placements are made by the child's caseworker and are ultimately determined by the court. There were three types of permanent placements: reunification with biological parent, relative adoption, and nonrelative adoption. As is shown in Table 1, no significant differences were found by type of permanent placement.

Failure of a permanent placement. Failure of permanent placement was the outcome variable for the analyses. This variable was dummy coded in analyses. A placement was considered to have failed if the child returned to foster care. No nonrelative adoptions failed in either condition. Three relative adoptions failed, all in RFC. All nine remaining placement failures were reunification failures.

Number of foster care placements during the study. From the time that each child entered the study, all placement changes were recorded in the project database as they occurred. Because research staff members contacted participating families at 4-week intervals to collect salivary cortisol, these records are extremely accurate. From these records, we calculated the number foster care placements per child during his or her time in the study.

Time in foster care before a permanent placement. Using the placement history database, we calculated the length of time that each child spent in foster care while in the study before he or she was moved into a permanent placement.

Group equivalency. Although differences between groups are expected to be partialled out by the randomization procedure, it is important to determine that the groups are equivalent on key variables that might affect outcomes. Such differences can be controlled for statistically if necessary. Key variables included number of prior foster placements, total time in foster care, nature of most recent maltreatment experiences, and behavioral adjustment. To gather placement data, detailed records for each child were

obtained from the Oregon DHS Child Welfare Division of Lane County, which uses records to reimburse foster parents for time that they care for children. All information was entered into the project database. Behavioral adjustment was measured via the *Child Behavior Checklist (CBCL)* (Achenbach, 1991).

There were no significant group differences on number of prior placements, total time in foster care prior to entering the study, or CBCL internalizing or externalizing scores. We examined type of maltreatment responsible for the current foster care placement by coding information in the case files. It is important to distinguish this information from lifetime maltreatment history, which is beyond the scope of the current study. Our goal was to ensure that the reasons for current placement did not differ significantly between groups. Maltreatment was coded into the following categories: sexual abuse, physical abuse, emotional abuse (i.e., parental rejection or witnessing domestic violence), threat of physical abuse, threat of sexual abuse, neglect, parent death, parent incarceration, abandonment, parental substance use, parent not utilizing social services, disrupted foster or adoptive placement, and other. Approximately, 66% of the cases were double coded, with high interrater reliability ($\kappa = .89$).

To reduce the number of possible categories, threat of physical abuse was coded as physical abuse, and threat of sexual abuse as sexual abuse. Furthermore, following the guidelines of Barnett, Manly, and Cicchetti (1993), parental abandonment was coded as emotional abuse. Parental substance use and failure of the parent to utilize social services were coded as neglect. Parental substance use was coded as neglect because children were generally removed from the home only when such behavior led to neglect. In the two cases coded for parental incarceration, there were also histories of neglect. In the two cases coded for foster or adoptive placement disruption, the reason for removal from biological parental care was determined from a further review of case records and was used to classify the children's maltreatment experience.

In the EIFC group, 6 children fell into two categories, and 7 children fell into three or more categories. In the RFC group, 8 children fell into two categories, and 2 children fell into three or more categories. To arrive at the child's final classification, sexual abuse was coded above physical abuse, physical abuse coded above neglect, and neglect coded above emotional abuse. The numbers of children in each category in each group are shown in Table 1. There were no sig-

nificant differences between groups on the numbers of children in multiple categories of maltreatment or in each maltreatment category.

Data analysis strategy. We used Cox regression analyses to test for group differences in permanent placement survival rates, controlling for foster placements prior to entry into the study, foster placements from the start of study, time in foster care prior to entry into the study, time in foster care from the start of the study, and gender. Type of permanent placement and age at first foster placement were also entered into models; because neither were significant, they were excluded from the final analyses. Our sample of children in permanent placements included an insufficient number of children who were sexually or physically abused to test the effects of such maltreatment on survival of permanent placements.

We ran the Cox regression analysis three ways. First, we ran it including all children placed in a permanent placement in both conditions. Second, we ran it on the identical sample but included information about repeated permanent placement failures. Third, we excluded older siblings from sibling pairs in the sample, reducing the sample to 45 children. Because results from the analyses did not differ—that is, adding repeated failures or removing the sibling pairs did not affect the results significantly—we only present results from the first analysis.

RESULTS

Of the 90 children with data available for analysis, 54 were placed in a permanent placement during their time in the study (EIFC $n = 29$; RFC $n = 25$). Retention rates across the study have been high. In the sample of 54, 8 children did not complete the full assessment; 6 moved to permanent placements out of the area, and 2 were reunified with a biological parent who was unwilling or unable to continue participation.

Although the participants entered permanent placements at approximately equal rates, their experiences varied greatly. Permanent placements failed for 9 (36%) of the children in RFC, of which 3 were relative adoptive placements and 6 were birth-parent reunifications. Permanent placements failed for 3 (10%) of the children in EIFC, all of which were birth-parent reunifications. Groups were significantly different on the number of failed permanent placements, $\chi^2(1) = 5.11, p = .02$. In addition, 2 (22%) children in RFC experienced two permanent placement

TABLE 2: Cox Regression Model for Failed Permanent Placements

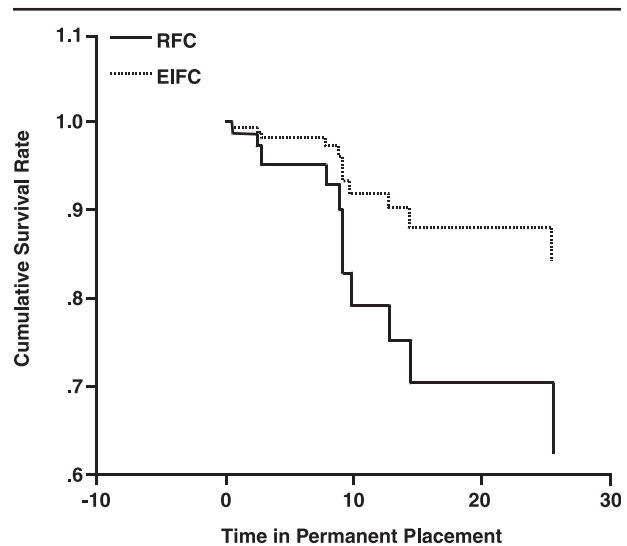
| Variable | β | SE | Wald | df | Significance | Exp(β) |
|--|---------|-----|------|----|--------------|----------------|
| Condition | -.10 | .88 | 1.28 | 1 | .26 | .37 |
| Placements prior to study | 1.74 | .64 | 7.48 | 1 | .01 | 5.70 |
| Placements during study | 2.64 | .89 | 8.80 | 1 | .00 | 13.95 |
| Interaction: Condition x | | | | | | |
| Placements prior to study | -1.82 | .92 | 3.90 | 1 | .05 | .16 |
| Gender | 1.22 | .69 | 3.13 | 1 | .08 | 3.38 |
| Time in foster care prior to study | -.11 | .08 | 1.80 | 1 | .18 | .90 |
| Time in foster care from study's start | -.03 | .06 | .21 | 1 | .65 | .97 |

failures, whereas none of the children in EIFC experienced a second failed permanent placement.

To ensure that the presence of sibling groups in the sample did not affect results, we ran the Cox regression model with the one applicable family while controlling for sibling groups that failed in permanent placements. It is not surprising to note, the sibling term, when included in the regression, was not significant and did not affect the overall regression results, $\beta = 1.273$, $SE = .928$, $Wald = 1.880$, $df = 1$, $p = .17$, $Exp(\beta) = 3.570$.

The log likelihood X^{-2} , $-2LL(7) = 61.994$, $p = .007$, for the first Cox regression model was significant, indicating that at least one of the population coefficients differed from zero. The survival functions for each condition are presented in Figure 1. Although the survival functions for each condition are identical for the first few months, the survival rates diverge rapidly at approximately 10 months. Most permanent placement failures for both conditions occurred between Month 8 and Month 14 of the placement.

The coefficients and significance levels for the variables in the Cox regression analyses are presented in Table 2. Time in foster care prior to study and time in foster care during the study were nonsignificant. The failure rate for girls was 3.38 times higher than that of boys; however, this difference was only marginally significant ($p = .08$). Foster placements prior to study, foster placements during study, and the interaction between condition and placements prior to study were significant. The failure rate for children with more than one foster placement during the study was 13.95 times higher than that for children with only one foster placement. However, the three EIFC cases that failed each had only one foster placement during the study, suggesting an interaction between condition and foster placements during the study. Unfortunately, given the absence of multiple failed permanent placements, it is not possible to test for such an interaction statistically.

**FIGURE 1: Survival Function by Condition for Cox Regression Model**

The number of foster placements prior to the study was significantly related to failed permanent placements for children in RFC but not for children in EIFC, as indicated by the significant interaction between condition and foster placements prior to study. The probability of failed placements for the interaction between condition and placements prior to study is shown in Figure 2. There were very small group differences for those children who had zero to two foster placements prior to study. However, beginning at three foster placements prior to study, the probabilities of failed permanent placements were .26 for RFC and .08 for EIFC. Notable in the results is the relatively flat and low Cox regression line for children in EIFC and the steep Cox regression line for children in RFC. The difference between the RFC and EIFC groups is found in the interaction between condition and placements prior to study.

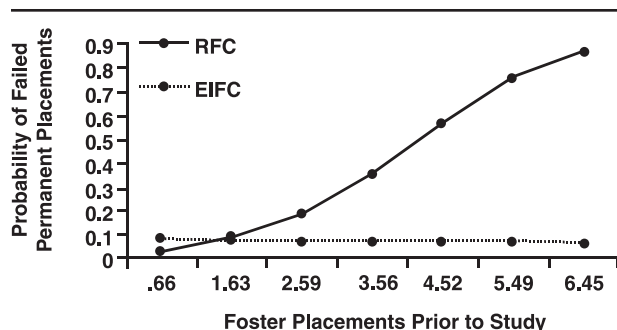


FIGURE 2: Probability of Failed Permanent Placement for Boys on Condition, Placements Prior to Study, Placements During Study, Interaction (Condition by Placements Prior to Study), Time in Foster Care Prior to Study, Time in Foster Care From Study Start, and Gender

DISCUSSION

Given the disparities among foster children in areas such as mental health status and educational outcomes, there is good reason to focus on early intervention in this population. Allocating resources to young foster children, before strong behavioral patterns have been established and prior to school entry, has the potential to mitigate many long-term risks and to be cost-effective, reducing the future consumption of mental health, substance abuse treatment, special education, and ultimately juvenile justice system services. However, researchers must first demonstrate the existence of programs with the potential to affect relevant outcomes and establish an evidence base of effective programs via randomized clinical trials. Only then can this line of reasoning be expected to influence policy.

The results reported here are noteworthy in a number of respects. Perhaps most important, they show that it is possible to improve the success rates for permanent placements following foster care. The permanent placement success rate in the RFC condition was 64%, mirroring the results found in national surveys. In contrast, the permanent placement success rate in the EIFC condition was 90%.

This outcome has several implications. In terms of a child's adjustment, failed permanent placements are likely to have immediate and long-term negative effects. Failed placements translate directly into disrupted relationships, major living transitions, relocation, and renewed uncertainty about the future, none of which are conducive to psychological well-being or healthy development. Rather, they add stress to already stressful lives. From an economic standpoint, reentry into foster care following a permanent place-

ment failure involves the cost of recruiting, training, and compensating foster parents and the cost of any social and mental health services the child might receive. Thus, even if extensive services are needed, maintaining a permanent placement is likely to be more cost-effective than having a child reenter foster care.

Another noteworthy aspect of the results has to do with the timing of failed permanent placements. The survival functions shown in Figure 1 reveal little difference in the permanent placements failure rates between the EIFC and RFC conditions across the first 8 months of placement. However, after this time, placement failures for children in RFC increased substantially, whereas placement failures for children in EIFC only increased slightly. To rule out the possibility that this result is an artifact of the children having entered school after the permanent placement, we conducted a post hoc analysis to examine age of child at the time of the placement failure. There were no differences at the time of permanent placement in the ages of children whose placement did and did not fail.

Having ruled out school entry as an explanation for the increase in placement failures after 8 months postplacement, these results point to parental factors such as substance abuse, relationship difficulties, or the cumulative effects of parenting and economic stress and point to administrative variables such as annual case reviews or other fixed-interval child welfare system follow-up involvement. More prospective research is clearly indicated to understand these factors better. The results also indicate an additional window for intervention: Providing additional services to permanent placement families who are beginning to struggle around 8 months postplacement might prevent, or at least postpone, reentry into foster care. Regardless of placements failed, participants in EIFC appear to have been less negatively affected, thus adding evidence of the intervention's effectiveness.

Moderating Factors

Another especially promising outcome from the analyses is related to the impact of prior placements on permanent placement failure. Our results for children in RFC are consistent with prior research: as the number of prior placements increased, so did the likelihood of failed permanent placements. In the EIFC condition, however, no such association was present. Rather, as is shown in Figure 2, the probability of failed permanent placements in the EIFC condition remained stable and low as the number of prior placements increased. This outcome suggests that EIFC might mitigate a known risk for permanent

placement failure. In other words, regardless of a child's placement history, it might be possible to reduce the likelihood of future moves, thus further improving outcomes for young foster children cost-effectively.

We examined several other potential moderating factors in the analyses, the results of which warrant discussion. First, number of placements during study was associated with greatly increased risk of permanent placement failure for children in both conditions. The lack of multiple foster placements for children in EIFC whose permanent placements failed indicates that this effect is carried by the children in RFC. To a certain extent, these results are to be expected, as children with multiple foster placements are likely to exhibit the most challenging, hard-to-manage behavior. In our clinical experience, these children are reported to exhibit the greatest difficulty forming attachments with caregivers and are the slowest to recognize changes in their environments. Consequently, such children might be more stressful for permanent placement caregivers, a factor that might lead to failed permanent placements resulting directly via caregiver rejection of the child or indirectly via caregiver anger, maltreatment of the child, and/or substance abuse. This stresses the need to better understand the link between multiple foster placements and permanent placement failure and has implications for policy and practice. Clearly, these children and caregivers should have access to resources that might help maintain the permanent placements.

We also examined gender as a potentially moderating effect. Although the gender effects observed were not statistically significant (at the $p < .05$ level), they were close enough to warrant attention. The direction of the gender effect suggests that girls have a greater likelihood for failed permanent placements. This is somewhat surprising and is worthy of further investigation, given that boys typically exhibit more disruptive behavior. However, these results should be considered with the results indicating that this trend existed in the RFC condition but not in the EIFC condition. In other words, as with prior placement effects, the EIFC intervention eliminated gender differences in the risk for failed permanent placement.

Mechanisms of Effectiveness

The data presented here do not allow for an in-depth examination of mechanisms that might account for the effectiveness of the EIFC intervention. However, the underlying theory guiding the intervention (see Fisher et al., 1999) emphasizes the need to facilitate the development of a consistent, contingent, and responsive family environment for

the child. This is accomplished via support and training to the foster caregiver and permanent placement resources and skill development for the child. In combination, these intervention tools are hypothesized to allow the caregiver to parent more effectively, to allow the child to make developmental progress, and to provide a context for the development of healthy and stable caregiver-child relationships. Future research will examine how these theoretical intervention mechanisms affected the outcomes observed here.

Limitations and Future Directions

Several limitations of the current investigation are worthy of comment. For example, we could not examine how maltreatment type impinges on group differences in permanent placement outcomes because of low rates of physical and sexual abuse among children in EIFC with failed placements. Moreover, our maltreatment information involved only basic data on the reason for the most recent foster placement. Thus, this question must be left to future analyses, though it is a potentially important question. Similar to the results obtained for number of prior placements, the EIFC intervention might effectively reduce permanent placement failure, regardless of type of maltreatment. However, the EIFC intervention might be more effective at improving outcomes for children with specific maltreatment profiles. We are comprehensively reviewing case files and coding the information for maltreatment history. Because we plan to follow the EIFC sample further out in time, we will be able to examine the question of how variations along specific dimensions of maltreatment (e.g., type, age at onset, and severity of abuse) are associated with permanent placement outcomes for children in EIFC and RFC.

Another limitation of the current study is the insufficient sample size for analyzing permanent placements by type. As with maltreatment history, outcomes for children in EIFC and RFC may vary by permanent placement type. In time, as a greater number of children in both conditions move to permanent placements, it should be possible to revisit this question with sufficient statistical power. Similarly, it will also be important to examine whether the high rates of permanent placement failure for girls in RFC are replicated and, if so, what underlying mechanisms might drive this effect, as this could have implications for future interventions.

Beyond documenting the improved permanent placement outcomes for children in EIFC and the effects of various moderating factors on these outcomes for children both conditions, two topics must be addressed. First, we need to better understand the mechanisms and timing of permanent placement fail-

ure. Perhaps a number of factors are associated with different placement outcomes: child factors, such as the extent of psychosocial impairment, developmental status, or temperament; parent factors, such as stress, psychopathology, and substance abuse; or system factors, such as the nature of child welfare caseworker involvement. Clearly, the variables that come into play around 8 months postplacement need to be better understood so that appropriate preventive services can be developed. The most effective interventions will need to involve multilevel performance models that accurately specify risks relating to specific factors. Second, it will be important to document the cost-effectiveness of the EIFC intervention and other evidence-based programming for this population. Economic analyses may help to establish whether the savings accrued for children who receive the intervention surpass programming costs, as this balance is undetermined.

In view of these limitations and the issues to be addressed in future work, these results should be considered a positive starting point for further work. They provide initial evidence that permanent placements success rates for foster children can be positively affected through systematic programming and that the impact of specific risk factors for permanent placement failure can be decreased. By building on this evidence base in partnership with policy makers, researchers have the potential to demonstrate that early intervention for preschool-aged foster children is not only worthwhile but also imperative.

NOTE

1. Some notable exceptions to this trend exist. For example, under the state of California's Proposition 10 legislation, funds from the tobacco settlement lawsuits have been placed into a trust, a portion of which is available for early intervention services and programming to address the needs of children who are high risk (including those in foster care).

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